Cl **00** *SC* **0** *P* **1** *L* *#* 4
Messina, Don

Comment Type **ER** *Comment Status* **A**
Scope and Purpose match modified PAR.

SuggestedRemedy

Response *Response Status* **C**
ACCEPT.

Cl **02** *SC* **2** *P* **3** *L* **21** *#* 3
Messina, Don

Comment Type **ER** *Comment Status* **A**
Normative References:
I cannot find IEEE Std 802 cited normatively in text. It is located in an informative footnote.

SuggestedRemedy
Cite normatively in text if it is to remain as a normative reference and recirculate; or if informative, staff will move to the informative bibliography without a recirculation. Just need to know if it is meant to be informative or normative.

Response *Response Status* **C**
ACCEPT.

Cl **04** *SC* **4** *P* **9** *L* **15** *#* 32
Gunther, Craig HARMAN INTERNATI

Comment Type **E** *Comment Status* **A**
GASP is defined here and used exactly once. That usage (6.2.1) also defines it.

SuggestedRemedy
Remove "GASP" abbreviation.

Response *Response Status* **C**
ACCEPT.

Cl **05** *SC* **5.1.2** *P* **11** *L* **25** *#* 24
Gunther, Craig HARMAN INTERNATI

Comment Type **E** *Comment Status* **A**
22F0 is a hexidecimal number

SuggestedRemedy
Add base 16 to 22F0.

Response *Response Status* **C**
ACCEPT.

Cl **05** *SC* **5.2** *P* **12** *L* **5** *#* 25
Gunther, Craig HARMAN INTERNATI

Comment Type **T** *Comment Status* **A**
Don't refer to 802.1Qat - it will eventually disappear. There are several diagrams like this throughout the document. Also, SRP defines the term StreamID (clause 3.5), Stream ID (with a space) is not defined.

SuggestedRemedy
"802.1Qat Stream ID" -> "SRP StreamID".

Response *Response Status* **C**
ACCEPT.

Cl **05** *SC* **5.2** *P* **15** *L* **5** *#* 5
Gwinn, Joseph Raytheon

Comment Type **E** *Comment Status* **A**
Awkward phrasing.

SuggestedRemedy
Change to read "while gray areas are discussed elsewhere."

Response *Response Status* **C**
ACCEPT.

Cl **05** *SC* **5.4.3** *P* **17** *L* **6** *#* 26
Gunther, Craig HARMAN INTERNATI

Comment Type **E** *Comment Status* **R**
We aren't using any of the gateway fields. If we replaced the with reserved fields we could use them for anything in the future. It seems strange to refer to gateway several places in the doc and everywhere we do we say it's not used in this document.

SuggestedRemedy
Replace all gateway fields with reserved fields.

Response *Response Status* **C**
REJECT.

These fields are reserved for a specific purpose. The ballot group prefers to leave the names as is.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open   W/written   C/closed   U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **05**
SC **5.4.3**

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Cl **05**   *SC* **5.4.5**   *P* **22**   *L* **3**   # 6

Gwinn, Joseph   Raytheon

Comment Type   **TR**   *Comment Status* **A**

Despite footnote 5, it should be required that listeners be able to join in any order at any time, and therefore that listeners be able to handle any starting point.

SuggestedRemedy

Change this table note into normative text.

Response   *Response Status* **C**

ACCEPT.

Cl **05**   *SC* **5.4.8**   *P* **18**   *L* **4**   # 2

Kicherer, Max   BMW Group

Comment Type   **GR**   *Comment Status* **A**

The AVB timestamp is also called 'presentation time'. This suggests there are two different times.

SuggestedRemedy

Use unly one term troughout the document.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

The field name is avtp_timestamp. The data contained in the field is the presentation time. It is important that we make sure that usage is consistent throughout the document.

Verify that everywhere avtp_timestamp is used that we refer explicitly to "avtp_timestamp field".

If that does make sense then adjust wording to refer properly to presentation time or avtp_timestamp field.

Cl **05**   *SC* **5.5.2**   *P* **19**   *L* **26**   # 27

Gunther, Craig   HARMAN INTERNATI

Comment Type   **E**   *Comment Status* **A**

There is no "802.1Q, clause 35.2.2.8.6"

SuggestedRemedy

Change to "SRP, clause 35.2.2.8.6"

Response   *Response Status* **C**

ACCEPT.

Cl **05**   *SC* **5.5.2**   *P* **19**   *L* **27**   # 31

Gunther, Craig   HARMAN INTERNATI

Comment Type   **E**   *Comment Status* **A**

"SR Class" is defined in Qav as "SR class"

SuggestedRemedy

Change "SR Class A" to "SR class A", "SR Class B" to "SR class B". Do this throughout the document.

Response   *Response Status* **C**

ACCEPT.

Cl **05**   *SC* **5.5.2**   *P* **19**   *L* **28**   # 28

Gunther, Craig   HARMAN INTERNATI

Comment Type   **E**   *Comment Status* **R**

(2) WiFi plus (6) Ethernet = 8 hops.

SuggestedRemedy

Change "...hops plus six (6) Ethernet (802.3) hops..." to "...hops plus five (5) or six (6) Ethernet (802.3) hops, for a total of seven (7) hops...".

Response   *Response Status* **C**

REJECT.

Numbers are correct as stated

Cl **05**   *SC* **5.5.4**   *P* **21**   *L* **21**   # 29

Gunther, Craig   HARMAN INTERNATI

Comment Type   **E**   *Comment Status* **A**

Incorrect sentence structure: "A Talker's shall be design such that..."

SuggestedRemedy

A Talker's what? shall be designed such that...

Response   *Response Status* **C**

ACCEPT.

Cl **05**   *SC* **5.5.4**   *P* **26**   *L* **11**   # 7

Gwinn, Joseph   Raytheon

Comment Type   **ER**   *Comment Status* **A**

To what does "it" refer?

SuggestedRemedy

Replace "it" with the name of the referenced entity. Do not use a pronoun.

Response   *Response Status* **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open   W/written   C/closed   U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **05**
SC **5.5.4**

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Cl **05**　　*SC* **5.5.4**　　　　　*P* **26**　　*L* **24**　　　# 8
Gwinn, Joseph　　　　　　　　Raytheon

Comment Type **E**　　*Comment Status* **A**
Run-on sentence.

SuggestedRemedy
Change to read "will occur. It is the".

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **05**　　*SC* **5.5.4**　　　　　*P* **27**　　*L* **2**　　　# 9
Gwinn, Joseph　　　　　　　　Raytheon

Comment Type **ER**　　*Comment Status* **A**
The "sentence" in lines 2-3 is not a sentence, and contains too many shalls.

SuggestedRemedy
Rewrite. There can be at most one shall per sentence.

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **05**　　*SC* **5.5.5**　　　　　*P* **22**　　*L* **6**　　　# 30
Gunther, Craig　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **A**
Refer to SRP clause 35, FQTSS clause 34. This will help with the references once Qat and Qav are incorporated in Q-2009

SuggestedRemedy

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **06**　　*SC* **6**　　　　　*P* **23**　　*L*　　　# 1
Kicherer, Max　　　　　　　　BMW Group

Comment Type **GR**　　*Comment Status* **R**
IEEE1722 in combination with IEC 61883 seems to use much more overhead then required.

SuggestedRemedy
Allow for 'lighter' payloadtypes, like those of RTP

Response　　　　　*Response Status* **C**
REJECT.

Payload types other than those based on 61883 are out of scope of this draft. The PAR limits this draft to payload format that leveraging concepts of IEC 61883.

Cl **All**　　*SC* **All**　　　　　*P* **0**　　*L* **0**　　　# 23
Gwinn, Joseph　　　　　　　　Raytheon

Comment Type **E**　　*Comment Status* **R**
As I said in the first ballot, this draft is very rough. The response was something to the effect that the IEEE Editors will perform the needed cleanup. It does not work that way, for at least two reasons. First the IEEE Editors are not really technical, and so dare not make any real change to such a deeply technical document as P1722. Second, the IEEE Editors arrive only after the ballot is done. Once the ballot closes, one cannot make any technical changes without undergoing a new ballot, and cleaning up the draft may require sufficient changes that people will question the claim that the changes are only editorial.

SuggestedRemedy
Do the needed cleanup as soon as possible.

Response　　　　　*Response Status* **C**
REJECT.

This comment does not describe a specific problem, nor suggest a usable remedy

Cl **B**　　*SC* **B.1**　　　　　*P* **40**　　*L* **24**　　　# 36
Gunther, Craig　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **A**
Bullet "d)" is listed here and on line 20.

SuggestedRemedy
Renumber "d)" through "f)" to "e)" through "g)".

Response　　　　　*Response Status* **C**
ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **B**
SC **B.1**

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Cl **B**   *SC* **B.1**   *P* **40**   *L* **3**   # 33

Gunther, Craig   HARMAN INTERNATI

Comment Type   **T**   *Comment Status*   **A**

Streams can also be transmitted to locally administered unicast addresses (see C.2.1).

SuggestedRemedy

Change "Multicast MAC addresses..." to "Multicast MAC addresses or locally administered unicast addresses...".

Response   *Response Status*   **C**

ACCEPT.

Cl **B**   *SC* **B.1**   *P* **40**   *L* **7**   # 35

Gunther, Craig   HARMAN INTERNATI

Comment Type   **E**   *Comment Status*   **A**

The multicast MAC address range is listed specifically at several places in the document. Only use the specific values where they are defined in Table B.4 & B.5. Refer to their name, not value, in all other places.

SuggestedRemedy

As my previous comment suggests, I would define them in B.1 and reference them by name after that.

Response   *Response Status*   **C**

ACCEPT.

Cl **B**   *SC* **B.1**   *P* **46**   *L* **18**   # 11

Gwinn, Joseph   Raytheon

Comment Type   **E**   *Comment Status*   **A**

Missing word.

SuggestedRemedy

Change to read "described here, and the detailed", the word "and" being new.

Response   *Response Status*   **C**

ACCEPT.

Cl **B**   *SC* **B.1**   *P* **46**   *L* **20**   # 12

Gwinn, Joseph   Raytheon

Comment Type   **E**   *Comment Status*   **A**

Missing comma.

SuggestedRemedy

Change to read "for use, an application".

Response   *Response Status*   **C**

ACCEPT.

Cl **B**   *SC* **B.1**   *P* **46**   *L* **21**   # 13

Gwinn, Joseph   Raytheon

Comment Type   **E**   *Comment Status*   **A**

All the lettered items in lines 20-35 should follow a consistent grammatical structure, so all should start with send or listen or repeat, et al; or all should start with sends or listens or repeats, et al.

SuggestedRemedy

Rewrite is described in the comment.

Response   *Response Status*   **C**

ACCEPT.

Cl **B**   *SC* **B.1**   *P* **46**   *L* **33**   # 14

Gwinn, Joseph   Raytheon

Comment Type   **ER**   *Comment Status*   **A**

What exactly are "applications". Also, what part of speech is intended, plural or possessive? And, whose application or applications are we talking about, the present state machine, or some other state machine, or something else entirely?

SuggestedRemedy

Rewrite for unambiguous clarity and correct grammar. Only after clarification does technical review becomes possible.

Response   *Response Status*   **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open   W/written   C/closed   U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **B**
SC **B.1**

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Cl **B**   *SC* **B.1**   *P* **46**   *L* **6**   # 10
Gwinn, Joseph   Raytheon

Comment Type **ER**   *Comment Status* **A**
"A reserved block -- has been reserved" seems redunadnt redundant. And, the sentence is run on.

SuggestedRemedy
Rewrite.

Response   *Response Status* **C**
ACCEPT.

Cl **B**   *SC* **B.2.6**   *P* **48**   *L* **19**   # 15
Gwinn, Joseph   Raytheon

Comment Type **TR**   *Comment Status* **A**
I cannot figure out what's going on in lines 19-24, and what the words seem to say would be technically incorrect.

SuggestedRemedy
Clarify what happens in each of the three possible cases: Received PDU is from a version older than the present state machine; Received PDU is from the same version as the present state machine; and Received PDU is from a version newer than the present state machine.

Response   *Response Status* **C**
ACCEPT.

Cl **B**   *SC* **B.2.8**   *P* **42**   *L* **19**   # 37
Gunther, Craig   HARMAN INTERNATI

Comment Type **E**   *Comment Status* **A**
stream_id is not used in MAAP.

SuggestedRemedy
Change "The stream_id field shall be set to zero (0)" to "The stream_id field is not used in MAAP and shall be set to zero (0)".

Response   *Response Status* **C**
ACCEPT.

Cl **B**   *SC* **B.3**   *P* **50**   *L* **19**   # 16
Gwinn, Joseph   Raytheon

Comment Type **ER**   *Comment Status* **A**
In lines 19 and 22, there is a tense conflict. A "most recent" action is in the past, while an "action to be performed" is in the future. From context, is appears that past tense is intended.

SuggestedRemedy
Delete the phrase "to be" in both places.

Response   *Response Status* **C**
ACCEPT.

Cl **B**   *SC* **B.3.1**   *P* **45**   *L* **8**   # 38
Gunther, Craig   HARMAN INTERNATI

Comment Type **E**   *Comment Status* **A**
Is this really a "should"?

SuggestedRemedy
Change "should" to "may".

Response   *Response Status* **C**
ACCEPT.

Cl **B**   *SC* **B.3.1**   *P* **51**   *L* **1**   # 17
Gwinn, Joseph   Raytheon

Comment Type **T**   *Comment Status* **R**
While I elsewhere provide some detailed comments on the state machine, I will say that I don't believe that the machine as presented is either correct or complete.

SuggestedRemedy
I have not the energy to redesign the state machine, and so will defer to other balloters, in particular those who will be expected to build such machines. I would recommend that the state machines be built and tested before finalization of 1722, as defining systems of distributed interacting state machines is more difficult than it appears, especially if communications between state machines is imperfect, as is always the case.

Response   *Response Status* **C**
REJECT.

This comment does not describe a problem, nor suggest a remedy.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **B**
SC **B.3.1**

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Cl **B**   *SC* **B.3.1**   *P* **51**   *L* **6**   # 19

Gwinn, Joseph   Raytheon

Comment Type **TR**   *Comment Status* **A**

All the "impossible" entries, designated with -x-, must be filled in, because theory and practice differ. Specifically, communications and coding errors will cause illegal combinations of state and event to occur from time to time, and will cause failure if the handling is unspecified. An important but more subtle cause is that messages propagate at a finite speed, and the apparent time order of events in a distributed system may differ from place to place.

SuggestedRemedy

For each and every -x- entry in Table B.2, define what will be done if this theoretically illegal combination should nonetheless occur. In many cases, the handling would be to simply ignore the event, but keep in mind that a burst of illegal combinations may signify that the state machines have gotten out of synch with one another, and some explicit action is required to recover sync. The classic work on the issue of causality in distributed systems is Lamport's "Time, Clocks and the Ordering of Events in a Distributed System", Communications of the ACM 21, 7 (July 1978), 558-565. Reprinted in several collections, including Distributed Computing: Concepts and Implementations, McEntire et al., ed. IEEE Press, 1984. <http://research.microsoft.com/en-us/um/people/lamport/pubs/pubs.html#time-clocks>

Response   *Response Status* **U**

ACCEPT IN PRINCIPLE.

The definition of what to do in the -x- cases is already included in section B.3 page 44 line 5. "No action or state transistion occurs in this case"

This description is reiterated in new introductory text that has been added to the state machine section of the document.

Cl **B**   *SC* **B.3.1**   *P* **51**   *L* **6**   # 18

Gwinn, Joseph   Raytheon

Comment Type **TR**   *Comment Status* **A**

The table nomenclature and design needs to be explained. For instance, are the entries of a cell ordered, or orderless? For example, if a ReserveAddress! Event occurs while in INITIAL state, if one interprets the contents of that table cell as an ordered list of actions, one will still be in INITIAL state when the sProbe action is taken, which is not correct.

SuggestedRemedy

Clarify the syntax and semantics of the state table itself. This has nothing to do with the design of the state machine being described here.

Response   *Response Status* **C**

ACCEPT.

Cl **B**   *SC* **B.3.2.1**   *P* **46**   *L* **5**   # 39

Gunther, Craig   HARMAN INTERNATI

Comment Type **E**   *Comment Status* **A**

Several defined terms are used that have not been defined yet. The same thing is done in B.3.2.2 on lines 12-13, B.3.4.2, line 18.

SuggestedRemedy

Either use a forward reference to Table B.3 or introduce Table B.3 in front of this text.

Response   *Response Status* **C**

ACCEPT.

Cl **B**   *SC* **B.3.4.1**   *P* **53**   *L* **16**   # 20

Gwinn, Joseph   Raytheon

Comment Type **TR**   *Comment Status* **A**

Pseudo-random number generators always repeat after some number of requests. A well-designed generator will not repeat sooner than 2^N requests, if generating N-bit numbers. This is called a maximal-length sequence.

SuggestedRemedy

Specify the minimum allowed sequence length in terms of the number of unique values that will be emitted. I would suggest that at least $2^{32}-1$ unique values be required. There is a very good description of random number generators in Knuth's classic tome: <http://en.wikipedia.org/wiki/The_Art_of_Computer_Programming>.

Response   *Response Status* **C**

ACCEPT.

Cl **B**   *SC* **B.3.4.1**   *P* **53**   *L* **16**   # 21

Gwinn, Joseph   Raytheon

Comment Type **TR**   *Comment Status* **A**

If one uses only the MAC address to seed the pseudorandom number generator, then every instance of the state machine on a platform will use the same sequence. This usually leads to trouble. One classic problem is the doppleganger, where one entity shadows another, just out of sight. Another is confounding of past and present conversations.

SuggestedRemedy

Require (not just suggest) a far more complex seed. At minimum, use the sum of the MAC address and the current time at machine creation, and use the least-significant (and thus most rapidly varying) part of the sum as the seed.

Response   *Response Status* **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **B**   Page 6 of 7
SC **B.3.4.1**   8/25/2010 12:13:0

Cl **B**　　*SC* **B.3.4.1**　　　*P* **53**　　　*L* **27**　　# 22
Gwinn, Joseph　　　　　　　　　Raytheon

Comment Type **TR**　　*Comment Status* **A**
Defining probe count exhaustion as a counter having value zero is fragile in practice, as if one somehow gets past zero, there is no way to stop, and the state machine may hang.

SuggestedRemedy
Change to read "the resulting value of maap_probe is not positive".

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **B**　　*SC* **B.3.4.3**　　　*P* **47**　　　*L* **21**　　# 40
Gunther, Craig　　　　　　　　　HARMAN INTERNATI

Comment Type **T**　　*Comment Status* **A**
What happens if dev_maap_probe_count is called when maap_probe_count is already zero? Does it go negative or does it stay at zero and send another probeCount! Or is it impossible to ever hit that situation?

SuggestedRemedy

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **B**　　*SC* **B.5**　　　*P* **49**　　　*L* **1**　　# 34
Gunther, Craig　　　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **A**
"Functions" from Table B.4 and B.5 are referred to throughout B, without any forward references. For example "MAAP Dynamic Allocation Pool" is referred to in B.1, but is not defined until the last clause of B.

SuggestedRemedy
Either move Tables B.4 & B.5 to the front of B, or use forward references to B.4 & B.5 at the places they are referenced.

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **C**　　*SC* **C.2.1**　　　*P* **51**　　　*L* **20**　　# 41
Gunther, Craig　　　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **A**
Don't refer to Qat.

SuggestedRemedy
Replace P802.1Qat with SRP, clause 35.

Response　　　　　*Response Status* **C**
ACCEPT.

Cl **C**　　*SC* **C.2.3**　　　*P* **52**　　　*L* **2**　　# 42
Gunther, Craig　　　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **R**
"802.1Q header" or "802.1Q tagged header"? Same with line 4 and line 8.

SuggestedRemedy

Response　　　　　*Response Status* **C**
REJECT.

802.1Q tagged header is redundant. The 802.1Q header is the vlan, PCP header.

Cl **C**　　*SC* **C.3.2**　　　*P* **52**　　　*L* **19**　　# 43
Gunther, Craig　　　　　　　　　HARMAN INTERNATI

Comment Type **E**　　*Comment Status* **A**
Replace Qat with SRP. Same for line 20 and line 38.

SuggestedRemedy

Response　　　　　*Response Status* **C**
ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER:　Clause, Subclause, page, line

Cl **C**
SC **C.3.2**

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