

September 2001 IEEE 802.3af Interim Meeting

Portsmouth, NH (Hosted by UNH Interoperability Lab)

Day One: Monday, September 24, 2001

- Steve Carlson's opening comments
- Attendance books are replaced by a sign-in sheet for this meeting
- Next meeting (Plenary) will be in Austin, TX. Meeting will take place Monday, November 12 through Thursday, November 15 (Host: AMCC).

- Geoff Thompson: Review of IEEE's policy towards patented material, and reiteration that a formal IEEE forum not be used for discussions re: patent concerns or patent law.

- Approximately 400 comments (~ 325 editorial & 75 technical) were accepted by TEE (The Esteemed Editor, Mike McCormack).
- Although the power delivered over MDI might be used for purposes not directly related to Ethernet devices, that is beyond the scope of our group's purpose.
- This meeting's primary purpose is to work with TEE to create the next Draft of IEEE 802.3af (rev. 2.0) by reviewing the Draft rev. 1.2 in conjunction with the comments received on that Draft (Comment Resolution).

- Mike McCormack engages the group in Comment Resolution.
 - PART ONE — ACCEPTED COMMENTS:
 - Patch panel current capacity raises its head again. Is there a TIA standard covering this?
 - Discussion on the suggestion (R. Karam) that we add "a simple statement" regarding safety. Steve Carlson remarks that such safety mandates are slippery. Send back to Power Ad Hoc?

 - PART TWO — REJECTED COMMENTS:
 - Yair Darshan's Comment 200 (re: "Active Current Balancing") raises valid questions, but does not provide actionable solutions. Returned to "Open."
 - Extensive discussion on Comment #160 (possible future implementation of 1000Base-T with Power-Over-MDI. This will either remain "rejected" or be reworded to be "beyond the scope of the committee."
 - Request for Ad Hoc workgroups to address the items remaining open and/or in need of rework. Many of the "Open" comments relate to the Channel Requirements. There is also some Discovery, Detection, and Power work to do.

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Day Two: Tuesday, September 25, 2001

- Mike McCormack disseminates CD-ROM with revised “Open Items” requiring Comment Resolution.
- Mike McCormack then leads the group directly into dealing with the “Open Issues.”
- Time-to-Power-Up a port has become a thorny open issue (see for instance comments #205 and 458). These will have to be resolved off-line amongst concerned parties and discussed further tomorrow.
- Comments #115, 119, 120, 133, 134 and 422 are referred to the Detection Ad Hoc.
- Various comments, including Comment #94, 211, 223 and 229 are referred to the Classification Ad Hoc.
- Various comments, including Comments #144, 459, 478 and 484 are referred to the Timing Ad Hoc.
- Various comments, including Comment #484 are referred to the Power Ad Hoc.
- Yair Darshan will create a new “Table 5” to clarify and supplement the present Table 5.
- Comment #64 (R. Karam, re: maintenance of link integrity) engendered protracted discussion. Steve Carlson: “We’re trying to remind people that this [802.3af] equipment can’t cause the [data transport] system to fail.”
- Comment #471 (K. Nakamura): “Page 27- 30, all of Annex 33A. This needs a lot more work to specify various test and acceptance criteria. All of the parameters in the PD and PSE tables should be tested somehow, or we face interoperability problems.” This received general agreement; it was Mike McCormack and Steve Carlson in principle agree with Karl’s suggestion that “An Ad hoc should be assembled to provide this testing data to the editor for inclusion in the draft ASAP.”
- Condition at the End of the Day: Comment resolution is not yet complete; we are not yet to the desired Draft Version 2.0. Therefore, we will during the next two weeks need to do on-line comments and comment resolution to be ready with Draft 2.0.
- Test cases, informative material, and other such must be ready and “in good shape” in order for us to release Draft 2.0, which will gate the release of Draft 2.1. (Task Force Working Ballot). Draft 2.2 for Working Group Ballot must then be ready and on the website by October 31, 2001. Mike McCormack believes that a lack of test cases and test fixtures is our greatest vulnerability in the release of 2.0/2.1.
- *802.3af Task Force Members must have all comments in prior to the November Plenary.* This means that the comments on 2.0 must be received quickly. Comments on 2.0 are to be sent by e-mail to Mike McCormack; comment resolution to form Draft rev. 2.1 will be via the reflector.
- Mike McCormack will assemble Draft rev. 2.1 on the basis of “no complaints to a section equals no change to that section.”

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Day Three: Wednesday, September 26, 2001

- John Jetzt/Avaya presents deliberations of the Classification Ad Hoc. The following is a brief synopsis only of John's comments.
 - Review of "Measured-Current" (imposed-voltage) and "Measured-Voltage" (forced-current) classification techniques.
 - Use guardbands between the individual classification levels to ease detection thereof.
 - Eliminate one classification level to make room for the guardbands.
 - Class 5 is eliminated.
 - This causes changes to Tables 3, 4, and 7.
 - New Tables are presented. A typo in Table 3: Detection Voltage Range of "2.7V – 3.1V" should read "2.7V – 10.1V."

- FOR MOST THOROUGH REVIEW, REFER TO JOHN'S JETZT'S PRESENTATION AS POSTED ON THE WEB.

- Dave Dwelley/Linear Technology discusses his assigned "pile of items." The following is a brief synopsis only of Dave's comments.
 - Explanation of the "Single-Point Detection" problem.
 - Revisions to detection voltage and current to eliminate possibility of a single-point detection.
 - Page 8, lines 8 – 12 and page 16, Table 7 will be revised to reflect these recommended revisions.

- Discussion of the 2.8V minimum signature voltage: with tolerances, a 12V (-5%) /75k (+1%) is not in fact terribly useful.

- "Cadence" Timing: Modification to 33.2.7.1
 - Detection time = 500ms max.
 - Detection period = 1 sec max
 - Detection period immediately after < 1Meg failure (Alternative B only) = 2 sec. Min
 - Suggest changing "Cadence Timing" to "Backoff Timing"

- FOR MOST THOROUGH REVIEW, REFER TO DAVE DWELLEY'S PRESENTATION AS POSTED ON THE WEB.

- Yair Darshan/PowerDsine
 - Summary of PSE and PD power supplies port requirements (Revised Tables 5 and 10)
 - Based on decisions made during May/June 2001
 - THESE REVISED TABLES WILL BE POSTED TO THE WEB. DUE TO THEIR COMPLEXITY THEY ARE NOT REPEATED HERE.

- Mike McCormack (TEE) presents several "poll questions" to the 802.3af Task Force. These poll results will be obtained from Mike later (in PowerPoint format) and inserted on the following pages.
 - The question of "How To Handle PSE Oversubscription (Does the PSE Continue Detection or Not?) turns out to be, as Mike had warned, "contentious."
 - "Boilerplate Motions" (Motions #1 through #4) – see additional appended pages.

MEETING ADJOURNED.

Single Insertion time

- Using your personal understanding of the lexicon, should we require that a single PD connected to an operational PSE be detected and powered within a period of time (specification TBD)?

Y: 19

N: 1

Over-subscription problem

- 100 Watt / 24 port PSE with 6 Class 3 PDs
(i.e. 90 Watts)
- Could support 1 more Class 2 or 2 more Class 1
but no more Class 0 or 3.

Oversubscription Choice A

- The PSE can always detect, it never has to do anything oversubscribed or otherwise.
- Issues
 - How can we enforce any user expectation?

– NO VOTE TAKEN / VOID

Over Subscription Choice B

- The PSE can detect and if a PD can provide classification and if the classification is 1 or 2 it can power. When over subscription gets to 97 or more, the PSE shall stop detection.
- Issues
 - A knowledgeable end user will see detection but never get power.

– NO VOTE TAKEN / VOID

Over Subscription Choice C

- The PSE shall stop detection if it does not have enough power for a Class 0 or 3 PD.
- Issues
 - Some amount of power is not used.

– NO VOTE TAKEN / VOID

Detection 1?

- If a PSE is not going to provide power, does it have to stop running detection?

Y: 2

N: 21

Detection 2?

- May a PSE turn off detection?

Y: 23

N: 1

Motion 1

- Move that the 802.3af task force accept the minutes from the July Plenary as posted on the web site.

Moved: John Jetzt

Second: Yair Darshan

Y: Acclimation
Procedural 50%

N:

A:

Motion 2

- Move that the 802.3af task force charter the editor to produce a Draft 2.1 for Task Force review by October 31, 2001.

Moved: Hank Hinrichs

Second: Terry Cobb

Y: 24

N: 1

A: 0

Procedural 50%

Motion 3

- Move that the 802.3af task force charter the editor to produce a Draft 2.2 for presubmittal to the 802.3 WG for Working Group ballot by November 5, 2001.

Moved: Peter Schwartz

Second: Scott Burton

Y: 18

N: 3

A: 1

Procedural 50%

Motion 4

- Move to Adjourn

Moved: Hank Hinrichs

Second: ??

Passed by Acclamation

Procedural 50%