

EFM Copper

End report

EFM May, 2002

**Hugh Barrass (Cisco Systems),
Chair. IEEE 802.3ah copper sub task force**

Theme of the week

- **Consensus, consensus, consensus!**
 - **5 unanimous motions**
- **Draft 0.9 adopted, draft 1.0 started**
 - **9 new assistant editors**
- **Clause structure proposal**
- **Evaluation criteria adopted**
- **Important liaison letters**
 - **T1E1.4 – line code decision process**
 - **ITU-T SG15/Q4 – g.HS codepoints, continue Rx error discussion**
- **Framing discussion**
- **The naming of things...**

Document (clause) structure

- **Split the copper clause (currently 61) into 3 parts to reflect the objectives and baselines:**

PCS for EFM Copper

PMA and PMD for short reach port type

PMA and PMD for long reach port type

- **P: Behrooz Rezvani, S: Hugh Barrass**

Y: 37 N: 0 A: 3

Adopting the draft

- **Adopt Draft 0.9 plus the comments to the editor “copper_d0.9_comments.pdf” as the basis for Draft 1.0 of Clause 61**
- **P: Behrooz Rezvani S: Ed Eckert**
Y: 31 N: 0 A: 1

Selection criteria

- Adopt “omahony_copper_1_0702.pdf” as the basis for the line code evaluation criteria. The line code selection process recognizes that Committee T1 has a goal of making a VDSL line code decision and will give due weight to that decision.
- P: Barry O’Mahony S: Behrooz Rezvani
Y: 57 N: 0 A: 1
(802.3) Y: 40 N: 0 A: 0

T1E1 Liaison

- **Send a liaison to T1E1 :**

Recognizing that Committee T1 has a goal of making a VDSL line code decision (as a function of the trial use period of T1.424) and

That 802.3ah will give due weight to any VDSL line code decision made by T1E1 and

802.3ah wishes to make a line code decision prior to submission of the 802.3ah document for sponsor ballot and

With presentation “omahony_copper_1_0702.pdf” appended for use by T1E1 as input for their line code evaluation criteria

- **P: Ed Eckert S: Daun Langston**

Y: 58 N: 0 A: 1

(802.3) Y: 39 N: 0 A: 0

ITU-T Liaison

- **Approve liaison with ITU-T SG15/4 as prepared by Barry O'Mahony**

- **P: Steve Jackson S: John Egan**
Y: 32 N: 0 A: 14
(802.3) Y: 24 N: 0 A: 7

IPG Straw Poll

- **Should we maintain the IPG for Ethernet frames on the wire as other clauses have done?**

Y: 8 N: 17 A: 19

Names

- **10PASS-T, 2PASS-TL, 2BASE-TL**
- **10PASS-T1, 2PASS-TL1, 2BASE-TL1**
- **10DSL-T, 2DSL-TL**
- **10BROAD-VG, 2BASE-VG, 2BROAD-VG**
- **10PASS-VG, 2PASS-VG, 2BASE-VG**
- **10PASS-V, 2PASS-A, 2BASE-S**

Adopting the Long Reach baselines

- Adopt “artman_copper_1_0702.pdf” as the basis for port type 2PASS-TL and “jackson_copper_1_0702.pdf” as the basis for port type 2BASE-TL in Draft 1.0 of Clause 63
- P: Ed Eckert S: Daun Langston
Y: 31 N: 19 A: 6
(802.3) Y: 20 N: 14 A: 4

Long Reach Motion

- Adopt “jackson_copper_1_0702.pdf” as the basis for a PHY for a single pair non-loaded voice grade copper at distances $\geq 2700\text{m}$ and speed $\geq 2\text{Mbps}$ full duplex and compatible with AMI-T1
- Adopt “artman_copper_1_0702.pdf”, with modifications to optionally operate over POTS, as the basis for a PHY for a single pair non-loaded voice grade copper at distances $\geq 2700\text{m}$ and speed $\geq 2\text{Mbps}$ full duplex and can operate over POTS
- P: Nelson Zagalsky S: Ed Eckert
Y: 36 N: 18 A: 8
(802.3) Y: 28 N: 9 A: 7

The Copperheads march on...

- **Questions?**

The Copperheads march on...

- **.3ah votes**

Document (clause) structure

- **Split the copper clause (currently 61) into 3 parts to reflect the objectives and baselines:**

PCS for EFM Copper

PMA and PMD for short reach port type

PMA and PMD for long reach port type

(CuSTF) Y: 37 N: 0 A: 3

- **P: Hugh Barrass (on behalf of CuSTF)**

Passed by acclamation

Motion: Adopting the draft

- **Adopt Draft 0.9 plus the comments to the editor “copper_d0.9_comments.pdf” as the basis for Draft 1.0 of Clause 61, 62, 63**

(Cu STF Y: 31 N: 0 A: 1)

- **P: Hugh Barrass on behalf of Cu STF**

Y: 126 N: 0 A: 8

Passed

Motion: Selection criteria

- Adopt “omahony_copper_1_0702.pdf” as the basis for the line code evaluation criteria. The line code selection process recognizes that Committee T1 has a goal of making a VDSL line code decision and will give due weight to that decision.

(CuSTF Y: 57 N: 0 A: 1, (802.3) Y: 40 N: 0 A: 0)

- P: Hugh Barrass on behalf of Cu STF

Y: nnn N: n A: nn

(802.3) Y: nnn N: n A: nn

(proposed amendment next page)

Motion: Selection criteria

- **Adopt presentation rezvani_1_0302.pdf (with addition of comments document, “notes_to_the_editor_1_0302.doc”, with the exception of note 13) as the basis of draft 1.0 to meet the following objective:
PHY for single pair non-loaded voice grade copper distance $\geq 750\text{m}$ and speed $\geq 10\text{Mbps}$ full duplex.**
- **Adopt “omahony_copper_1_0702.pdf” as the basis for the line code evaluation criteria. The line code selection process recognizes that Committee T1 has a goal of making a VDSL line code decision and will give due weight to that decision.**

amendment

- **P: Michael Beck S: Vladimir Oksman**
Y: 93 N: n 4: 23

Motion: Selection criteria

- Adopt presentation rezvani_1_0302.pdf (with addition of comments document, “notes_to_the_editor_1_0302.doc”, with the exception of note 13) as the basis of draft 1.0 to meet the following objective:

PHY for single pair non-loaded voice grade copper distance $\geq 750\text{m}$ and speed $\geq 10\text{Mbps}$ full duplex.

- Adopt “omahony_copper_1_0702.pdf” as the basis for the line code evaluation criteria. The line code selection process recognizes that Committee T1 has a goal of making a VDSL line code decision and will give due weight to that decision.

- P: Hugh Barrass on behalf of Cu STF

Y: 109 N: 0 A: 24

(802.3) Y: 75 N: 0 A: 22

Passed

T1E1 Liaison

- **Approve liaison with T1E1.4 as prepared by Michael Beck**

(Cu STF Y: 58 N: 0 A: 1, (802.3) Y: 39 N: 0 A: 0)

- **P: Hugh Barrass on behalf of Cu STF**

Y: 106 N: 0 A: 9

Passed

ITU-T Liaison

- **Approve liaison with ITU-T SG15/4 as prepared by Barry O'Mahony**

(Cu STF Y: 32 N: 0 A: 14, (802.3) Y: 24 N: 0 A: 7)

- **P: Hugh Barrass on behalf of Cu STF**

Y: 98 N: 0 A: 6

Passed

Limiting the Long Reach baselines

- Limit the proposals for consideration for the long reach objective to those based on “artman_copper_1_0702.pdf” and “jackson_copper_1_0702.pdf”
- P: Hugh Barrass S: Behrooz Rezvani
Y: 81 N: 5 A: 26
(802.3) Y: 60 N: 4 A: 21
Passed