

IEEE 802.3ar Congestion Management Task Force
07 March 2006 Interim Meeting Minutes
Denver, Colorado

Attendees (alphabetical):

- 1) Subbara Arumilli/Brocade
- 2) Hugh Barrass/Cisco
- 3) Scott Barrick/Mentor Graphics
- 4) Denis Beaudoin/Texas Instruments
- 5) Ralf-Peter Braun/T-Systems
- 6) Robert Brunner/Ericsson
- 7) Luke Chang/Intel
- 8) Uri Cummings/Fulcrum Microsystems
- 9) Kevin Daines/World Wide Packets
- 10) Wael Diab/Broadcom
- 11) Thomas Dineen/Dineen Consulting
- 12) Marcus Duell/Lucent
- 13) Howard Frazier/Broadcom
- 14) Ilango Ganga/Intel
- 15) Mark Gravel/HP
- 16) Bob Grow/Intel
- 17) Tanmay Gupta/Intel
- 18) Takafumi Hamano/NTT
- 19) Asif Hazarika/Fujitsu
- 20) Gopal Hegde/Intel
- 21) Pankaj K Jha/Intel
- 22) Tae-eun Kim/Extreme Networks
- 23) Yong Kim/Broadcom Corp
- 24) Bruce Kwan/Broadcom Corp
- 25) Mike Ko/IBM
- 26) David Koenen/HP
- 27) Subi Krishnamurthy/Force10 Networks
- 28) Joe Lawrence/Level 3
- 29) Michael Lou/Broadcom
- 30) Arthur Marris/Cadence
- 31) Asis (Suvhasis) Mukhopadhyay/Transwitch Corp.
- 32) Shimon Muller/Sun
- 33) Jacob Nielson/Enigma Semiconductors
- 34) Satoshi Obara/Fujitsu
- 35) Glenn Parsons/Nortel
- 36) Tim Plunkett/US Navy
- 37) Duane Remein/Alcatel
- 38) Guenter Roeck/Teak Technologies

- 39) Kirk Spessard/Level 3
- 40) Pat Thaler/Broadcom
- 41) Guy Trotter/Agilent
- 42) Steve Trowbridge/Lucent Technologies
- 43) Manoj Wadekar/Intel

9:00 Session started

Welcome and introductions

Manoj Wadekar appointed as recording secretary

Kevin Daines (P802.3ar Chair) presented ar_agenda_0603_post.pdf, which contains agenda and general information. Kevin Daines outlined the purpose of the meeting, which is to hear presentations from Hugh Barrass and Howard Frazier and if possible, prepare for Working Group ballot.

Motion: "Approve minutes from January Interim meeting posted on 802.3ar website"

Move: Hugh Barrass

Second: Tanmay Gupta

Motion approved by voice vote

Motion: "Approve agenda of the meeting"

Move: Bob Grow

Second: Gopal Hegde

Motion approved by voice vote

Revised patent policy (February 2006) was read to the Task Force
No letter of assurance by any attendee at this time.

Kevin Daines reviewed 802.3ar timeline and objectives. Kevin provided some background on the history of the TF objectives.

Presentation:

Hugh Barrass presented barras_1_0603.pdf "Annex 4B Proposal"

- Annex 4B (Informative) summarizes all the options that MAC designed needs to consider.
- Note: Typo exists - "1518 bits" to "1518 bytes"

Discussion about whether this work fits in the scope of the TF
Kevin Daines read the comment that led to this informative Annex and resolution within 802.3ar TF during January 2006 interim meeting.

Straw Poll: "How many prefer options to be documented as offered in document barrass_1_0603.pdf?"

Yes: 4

Straw Poll: "How many prefer options to be documented as a table in Annex 4B?"

Yes: 13

Presentation:

Howard Frazier presented frazier_1_0603.pdf "802.3ar/D1.1"

- Howard highlighted several issues as captured here from the second slide of the presentation, "List of issues"
 - o Granularity of ifsStretch
 - o Draft vs PAR
 - o Draft vs Objectives
 - o Draft vs 5 Criteria
 - o Draft vs 802.3 operating rules

Howard was asked if he had a proposal for improving the granularity of ifsStretch and he replied that he did not.

Presentation:

Hugh Barrass presented barrass_2_0603.pdf "Change to ifsStretchRatio"

- Proposed two mechanisms to improve granularity addressing issue Howard raised in his presentation.

Note: barrass_3_0603.pdf was uploaded to the website as it contains revisions discussed during the live presentation.

Kevin Daines discussed the fact that since issues have been raised on 802.3ar/D1.1, it is probably not ready for WG ballot.

Kevin Daines reviewed the next possible steps:

- a) Moving to WG ballot requires
 - a. First, TF motion
 - b. Second, WG motion on Thursday
- b) If TF decided not to attempt to move to WG ballot, the TF could create D1.2 and conduct another TF review
- c) Modifying the TF objectives
 - a. First, TF motion(s)
 - b. Second, WG ratification
- d) Modify PAR, scope, 5 criteria
 - a. First, TF motion(s)

- b. Second, WG ratification, possible EC action depending on nature of changes

802.3ar TF Motion #1:

"Modify Objective #1 to read: Specify mechanism(s) to limit the rate of transmitted data on an Ethernet link"

Move: H. Frazier

Second: M. Gravel

Y: 10 N: 19 A: 8

>= 75%

Fails

802.3ar TF Motion #2:

- Remove TF objective #2
 - o "Specify a mechanism to support the communication of congestion information"
- On the assumption that 802.1 does not currently require any supporting mechanism in 802.3 standard to implement congestion management functions

Move: H. Frazier

Second: T. Mathey

Y: 30 N: 0 A: 7

>= 75%

Passes

802.3ar TF Motion #3:

Remove Objective #3

- "Minimize throughput reduction in non-congested flows"

M: H. Frazier

S: S. Muller

Y: 24 N: 0 A: 13

>= 75%

Passes

802.3ar TF Motion #4:

Modify PAR title

- "Information technology –
- Telecommunications and information exchange between systems --
Local and metropolitan area networks – specific requirements Part 3:
Carrier Sense Multiple Access with Collision Detection (CSMA/CD)
Access Method and Physical Layer Specifications Amendment:
Enhancements for ~~Congestion-Management~~ Rate Control

Motion to amend: "Enhancement for Congestion Management at the Link Layer"

Move: A. Mukhopadhyay

- Failed due to lack of second

Motion to amend: "Rate Control enhancements to support congestion management"

Move: Uri Cummings

Second: Hugh Barrass

Y:10 N:15 A:9

>= 75%

Motion to amend fails

Move: H. Frazier

Second: S. Muller

Y:17 N:8 A: 9

>= 75%

Fails

12:00pm 802.3ar TF decided to break for lunch and reconvene at 3.00pm

3.00pm

802.3ar TF Motion #5:

Motion: Direct the editor to add text in draft 1.2 to fill the empty clauses (Clause 4, Annex 30A, Annex 30B) from draft 1.1, in keeping with the existing clauses in draft 1.1

Move: H. Barrass

Second: M. Wadekar

Y:23 N:0 A:6

>= 75%

Passes

802.3ar TF Motion #6:

Motion: Direct the editor to add all of the relevant text from the base standard into Clause 4A (and Clause 4 as appropriate) so that the new or changed text may be read and understood in context for draft 1.2

Move: H. Barrass

Second: T. Gupta

Y: 27 N:0 A:5

>= 75%

Passes

802.3ar TF Motion #7:

Motion: Direct the editor to change the definition of the ifsStretch mechanism in draft 1.2 so that the ifsStretchRatio is in the form $1024/n$ (where n is the # of bits in a frame that require 1 octet of extra ifs - as described in barrass_3_0603.pdf).

Move: H. Barrass

Second: M. Wadekar

Y: 10 N:2 A:23

>= 75%

Passes

802.3ar TF Motion #8:

Motion: Direct the editor to add a new informative annex (4B) and appropriate cross-references in draft 1.2 based on barrass_1_0603.pdf with tabular format.

Move: H. Barrass

Second: P. Thaler

Y: 24 N:0 A:7

>= 75%

Passes

802.3ar TF Motion #9:

Motion: Direct the editor to produce draft 1.2, based on changes agreed in the TF, and circulate the draft for Task Force review.

Move: H. Barrass

Second: T. Gupta

Y:22 N:5 A:6

>= 75%

Passes

802.3ar TF Motion #10:

Remove this text from the draft Technical Feasibility criteria

- Mechanisms for congestion management using congestion indication are known in the industry for some protocols and standards. Simulations of similar protocols show there are alternatives that can be feasibly implemented to accomplish the objectives within IEEE 802.
- The inclusion of congestion indication in layer 2 devices was anticipated in RFC 3168 "The Addition of Explicit Congestion Notification (ECN) to IP".

Motion to amend: Replace first line with "Creation of the draft of Technical Feasibility Criteria that would consider the removal of the following text:"

M: A. Hazarika - Motion failed due to lack of second.

Move: H. Frazier

S: T. Dineen

Y:21 N: 2 A: 14

>= 75%

Passes

802.3ar TF Motion #11:

Remove this text from the draft Compatibility criteria

- [bullet #1] "conform to the 802.3 MAC, and therefore will"
- [bullet #2] As was the case in previous 802.3 standards, additional MAC Control sublayer functionality and MAC Control frame opcodes may be defined.
- Add new bullet [after #1]
 - o "The MAC may be enhanced."

Motion #12: Move to postpone consideration of motion #11 until after motion to revise the 5 Criteria is adopted

M: Ilango Ganga S: Manoj Wadekar

Procedural > 50%

Y: 6 N:8

Fails

Move: H. Frazier

Second: T. Dineen

Y: 20 N:0 A:8

>= 75%

Passes

General consensus of the TF is to continue revising PAR and 5 criteria and present cohesive set of changes to 802.3 WG in July 2006.

Future Meetings:

May 15-18, 2006 Beijing, China (Co-located with IEEE 802.1)

Straw poll:

How many plan to attend? 8

How many attending 802.1 already? 8

5:00pm session adjourned