

Attendees:

Name	Employer	Affiliation
Mike Bennett	LBNL	LBNL
Sergiu Nedevschi	UC Berkeley	UC Berkeley
Sylvia Ratnasamy	Intel	Intel
Ahmad Nouri	Broadcom	Broadcom
Bruce Nordman	LBNL	LBNL
Joseph Chou	Real Communications	Realtek
Ozdal Barkan	Marvell	Marvell
John D'Ambrosia	Force10 Networks	Force10 Networks
Robert Grow	Intel	Intel
Geoff Thompson	Nortel	Nortel
Brad Booth	AMCC	AMCC
Jim Millar	Force10 Networks	Force10 Networks
Hugh Barrass	Cisco	Cisco
Ed Brown	Broadcom	Broadcom
Mario Traeber	Infineon	Infineon
Robert Hays	Intel	Intel
Gavin Parnaby	SolarFlare	SolarFlare
Wiren Perera	Plato Networks	Plato Networks
Scott Powel	Broadcom	Broadcom
David Koenen	HP	HP
Glen Parsons	Nortel	Nortel
Bill Woodruff	Aquantia	Aquantia
Dan Dove	Dove Networking	Procurve
Wael Diab	Broadcom	Broadcom
Alan Flatman	LAN Technologies	LAN Technologies
James Tsai	Intel	Intel
David Law	3Com	3Com
Steve Carlson	HSD	HSD
Jeff Lynch	IBM	IBM
Mandeep Chadha	Vitesse	Vitesse
Pat Thaler	Broadcom	Broadcom
Sanjay Kasturia	Teranetics	Teranetics
Dimitry Taich	Teranetics	Teranetics
Terry Cobb	Comscope/Systemax	Comscope/Systemax
Howard Frazier	Broadcom	Broadcom
Ilango Ganga	Intel	Intel
Ryan Hirth	Teknovus	Teknovus
Shimon Mueller	Sun	Sun
Alessandro Barbieri	Cisco	Cisco
Adam Healy	LSI	LSI
Michelle Gong	Intel	Intel

Meeting opened with introductions at 9.05am

Hugh Barrass was appointed recording secretary for the meeting.

Minutes from last meeting approved by voice

Mike Bennett and Bob Grow reminded everyone of the sign in rules, especially the requirement to declare affiliation, and briefly described the rules for voting membership.

Mike displayed the patent policy slides, reading aloud the highlights and guidelines and allowing time for the group to digest the information. These slides and other general information are included in http://www.ieee802.org/3/az/public/jan08/agenda_1_0108.pdf

The TF started to review presentations, for each one some of the flavor of the comments and discussion is also captured.

Bruce Nordman presented "Musings on Savings" - nordman_01_0108.pdf

The use of "Idle" to mean anything other than the currently defined term is not advised.

Robert Hays presented "Active/Idle Toggling with Low-Power Idle" - Hays_01_0108.pdf

There are concerns over crosstalk issues - particularly with asymmetric operation. There was some discussion about the similarity of the preamble with the wake-up concept and the effects of periodic traffic.

Dan Dove presented "Switching Perspective" - dove_01_0108.pdf

Some concern was expressed over having a large number of parameters that reflect proprietary functions.

Work is needed on how much needs to be defined or constrained - particularly for specific PHYs.

Sergiu Nedevschi presented "Reducing network energy consumption via sleeping and rate-adaptation" - nedevschi_01_0108.pdf

Joseph Chou presented "Proposal of Low-Power Idle 100Base-TX" - chou_01_0108.pdf

Adam Healey presented "1000BASE-T Low-Power Idle" - healey_01_0108.pdf

There was much discussion around detailed timings and alternatives although the core concept was well received.

Joseph Chou presented "Feasibility of Asymmetrical Low-Power Idle 1000Base-T" - chou_02_0108.pdf

The use of asymmetric mode in the PHY simplifies the MAC operation.

There was some concern regarding options & features - it is important that to have testable, reliable and interoperable definitions.

Gavin Parnaby presented "10GBase-T Active / Low-Power Idle Toggling" -
parnaby_01_0108.pdf

More discussion on details of timing. If the refresh interval is small then filter coefficients will not wander too far from alignment, if the refresh interval is long then more power may be saved but extra time may be required to retrain.

Brad Booth presented "Supporting Legacy Devices" - booth_01_0108.pdf

MAC-level protocols can enable power savings where EEE PHYs are connected to legacy PHYs.

Meeting adjourned for the day at 5.07pm.

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Gavin Parnaby	SolarFlare	SolarFlare
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Dan Dove	Dove Networking	Procurve
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Adam Healy	LSI	LSI
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James Tsai	Intel	Intel
Jeff Lynch	IBM	IBM
Pat Thaler	Broadcom	Broadcom
Dimitry Taich	Teranetics	Teranetics
Terry Cobb	Comscope/Systemax	Comscope/Systemax
Shimon Mueller	Sun	Sun
Bob Noseworthy	UNH-IOL	UNH-IOL

Meeting opened at 9.07am, continuing with presentations.

Mandeep Chadha presented "Transmit Amplitude Reduction "Green-T"- chadha_01_0108.pdf

There was some discussion around backward compatibility, operation and requirements

Scott Powell presented "Subset PHY" Approach" - powell_01_0108.pdf

There was some discussion about keeping the filters fresh during subset operation and refresh. Also there was discussion about the effect of a frame in progress on the low speed link during upshift.

Questions were asked about manufacturing complexity caused by permutations of channel usage and mode shifting.

Howard Frazier presented "A "Subset PHY" Approach for 10GBASE-KR" - baumer_01_0108.pdf

Questions were asked regarding the problem of keeping coefficients fresh above 1GHz without transitions at that frequency.

Similarly, the pre-emphasis would have to change for the lower range. Comparisons were drawn between this proposal and changing between -KR & -KX.

Mike then opened the floor for motions, there did not appear to be any.

It was asked whether we could revisit motions from the last meeting, Mike said that any motion would be considered as "new" - even if it looked the same as previous.

Straw poll (#1) "How many people are in favor of using a Low Power Idle mode to adjust the energy consumption in response to offered load for twisted pair systems"

Yes: 20 No: 0 Maybe: 11

Straw poll (#2): "Question on four modes (LPI, RPS, subset-PHY, fast-start) of power saving used for twisted-pair connections and backplane connections:"

Same for all: 5

Same per media type (UTP, backplane): 7

Independently decided (PHY specific): 8

Undecided: 10

Straw poll (#3): "The Task Force believes we should focus our work on:"

Chicago rules.

LP_IDLE approach: 23

Subset PHY approach: 10

Other: 0

Not ready to narrow investigation: 15

There was some discussion about the need to build consensus with presentations at the next meeting. There were no more straw polls.

Mike presented the meeting schedules for future meetings.

Steve Carlson asked how many people will be going into HSE tomorrow (Friday): 10

How many new people did we have in the room? 3-4

How many of these new people will continue? all

How many people will go to March plenary? 27

How many might attend (unsure) 3

How many will not go? 0

How many people will go to May interim? 8

How many might attend (unsure) 3

How many will not go? 3

How many people will go to September Interim? 11

How many might attend (unsure) 13

How many will not go? 2

Motion to adjourn M: H. Barrass S: W. Diab - passed by voice.

Meeting adjourned at 12.04pm