5/13/2008

Meeting Attendees:

Name	Employer	Affiliation
Mike Bennett	LBNL	LBNL
Albert Kuo	Realtek	Realtek
Dan Dove	ProCurve	ProCurve
Terry Cobb	CommScope/Systemax	CommScope/Systemax
Sanjay Kasturia	Teranetics	Teranetics
Robert Hays	Intel	Intel
Joseph Chou	Realtek	Realtek
Robert Grow	Intel	Intel
Velu Pillai	Broadcom	Broadcom
Ozdal Barkan	Aquantia	Aquantia
Bill Woodruff	Aquantia	Aquantia
George Zimmerman	Solarflare	Solarflare
Hugh Barrass	Cisco	Cisco
Martin Renner	Infineon	Infineon
Mario Traeber	Infineon	Infineon
Michael Grimwood	Broadcom	Broadcom
Mandeep Chadha	Vitesse	Vitesse
Jacabo Riesco	LSI	LSI
Niall Fitzgerald	LSI	LSI
Brian Murray	LSI	LSI
Adam Healey	LSI	LSI
David Loenen	HP	HP
Edward Turner	Gnodal	Gnodal
Dimitry Taich	Teranetics	Teranetics
Brad Booth	AMCC	AMCC
David Law	3Com	3Com

Meeting opened with introductions at 9:05 AM

Hugh Barrass "volunteered" to act as recording secretary.

Mike thanked the host (Dave Dwelley & Linear Technology), showed the information for the next interim in Chengdu, China. Everyone in the room introduced themselves and gave their affiliations, Mike reminded everyone about the sign-in sheet.

Motion to approve the minutes: P: Barrass; S: Zimmerman. Minutes from last meeting passed by voice

Motion to approve Sanjay Kasturia as chief editor P: Woodruff S: Grow - Sanjay Kasturia approved as the chief editor by voice.

Mike displayed the patent policy slides, reading aloud the highlights and guidelines and allowing time for the group to digest the information and the call for patents. These slides and other general information are included in Mike's presentation available on the website.

Bill Woodruff noted that his company (Aquantia) has submitted an LOA.

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

Sanjay Kasturia presented "Document Structure, Clauses, and Editors" (kasturia_01_0508.pdf).

There was a little discussion on the Clause number assigned to EEE. David Law indicated that we would be assigned to Clause 93 temporarily and that we should use that Clause number in the knowledge that it would be changed to a final clause assignment at some time in the future. Sanjay presented a list of (probable) clause edits along with volunteers for editors.

Adam Healey reminded everyone of the sign in rules, especially the requirement to declare affiliation, and briefly described the rules for voting membership.

Mandeep Chadha presented "Cat5 Twisted Pair Model for "Green" 10BASE-T" (chadha_01_0508.pdf).

There were a small number of questions to clarify details and Mandeep was thanked for his work.

Dan Dove presented "Energy Efficient Ethernet Switching Perspective" (dove_01_0508.pdf).

Dan noted that "switching" in this context is describing the system above the MAC and could equally be applied to NIC applications. There was some discussion on the use of sequence ordered sets across system interfaces. Also some discussion of the difference between PHY level and system level wake times.

David Law presented "Energy-efficient Ethernet and LLDP", providing the Task Force an overview on the subject of LLDP and pervasive management (as he has done previously for 802.3at).

His presentation was not available in advance but will be added to the archive (**law_01_0508.pdf**). There was a robust discussion about management and management communications.

Rob Hays presented "Capabilities Negotiation Proposal for Energy-Efficient Ethernet" (hays_01_0508.pdf).

There was much discussion regarding the various ways of specifying and using "wake" signaling. It was also commented that we seem to have consensus on the use of LLDP and auto-negotiation.

Joseph Chou presented "EEE Compatible 100BASE-TX" (chou_01_0508.pdf).

There was some discussion about how this proposal will map to the particular clauses for the standard.

Joseph Chou presented "EEE Compatible MII/GMII Interface" (chou_02_0508.pdf).

There were some questions and comments about the details.

Adam Healey presented "1000BASE-T Low-Power Idle" (healey_01_0508.pdf).

Discussion included the subject of maintaining clock synchronization and long vs short duty cycles.

Joseph Chou presented the following straw poll:

"Do you oppose halting clocks of MII and GMII interfaces during Low Power Idle operating state to save more power?"

Yes: 1
No: 16
Abstain: 3

Meeting recessed at 5:35 PM

5/14/2008

Meeting Attendees:

Name	Employer	Affiliation
Mike Bennett	LBNL	LBNL
George Zimmerman	Solarflare	Solarflare
Dan Dove	ProCurve	ProCurve
David Koenen	HP	HP
Amir Mezer	Intel	Intel
Adeo Ran	Intel	Intel
Anthony Magee	ADVA	ADVA
Bill Woodruff	Aquantia	Aquantia
Robert Grow	Intel	Intel
Niall Fitzgerald	LSI	LSI
Martin Renner	Infineon	Infineon
Mandeep Chadha	Vitesse	Vitesse
Jacabo Riesco	LSI	LSI
Velu Pillai	Broadcom	Broadcom
Ozdal Barkan	Aquantia	Aquantia

Brian Murray	LSI	LSI
Adam Healey	LSI	LSI
Sanjay Kasturia	Teranetics	Teranetics
Albert Kuo	Realtek	Realtek
Dimitry Taich	Teranetics	Teranetics
Brad Booth	AMCC	AMCC
Joseph Chou	Realtek	Realtek
Hugh Barrass	Cisco	Cisco
Mario Traeber	Infineon	Infineon
Robert Hays	Intel	Intel
Terry Cobb	CommScope/Systemax	CommScope/Systemax
Edward Turner	Gnodal	Gnodal
Christian Neumeyers	Vertilas Guibtt	Vertilas Guibtt
Greg Le Cheminant	Agilent	Agilent
Jan Filip	Maxim International Products	Maxim Int'l Products
Wolfgang Grupp	JDSU	JDSU
Alan Tipper	Tacitis	Gennum
Mariotti Carlo	Cisco	Cisco
Luc Duplessis	EXFO	EXFO
Hikaru Kouta	NEC	NEC
Kenichiro Tashiki	NEC	NEC
Wael Diab	Broadcom	Broadcom
Michael Grimwood	Broadcom	Broadcom

Meeting resumed at 9:03 AM

On a sunny, fresh new morning **David Koenen presented "In support of EEE mode for 1000BASE-KX PHY" (koenen_01_0508.pdf)**.

There were some questions about wake-up time and wake-on LAN functions.

Adam Healey reminded everyone of the sign in rules, especially the requirement to declare affiliation, and briefly described the rules for voting membership.

David Koenen presented a straw poll question:

"How should the EEE Task Force propose adding an EEE mode for 1000BASE-KX?"

Add to TF Objectives	**19**
Just do it. Implied in PAR Scope	**13**
Will support if someone signs up	**0**
Should not do it, not in objectives	**0**
Should not do it, bad idea	**0**

Brad Booth presented "Backplane Ethernet Low-Power Idle" (booth_01_0508.pdf).

There was a discussion about how widely this could be applied to other interfaces (802.3 and otherwise). The details of the synchronization mechanism were discussed.

Dimitry Taich presented "10GBASE-T Low-Power Idle Proposal" (taich_01_0508.pdf).

There were some detailed questions for clarification during the presentation. Dmitry was also asked about PHY and system power savings in some specific examples - including a "backwardly compatible" mode.

Hugh Barrass presented a straw poll (with some backup information) shown in barrass_01_0508.pdf

There was a vigorous discussion around the preferable method of specifying EEE operation of 100BASE-TX and making an acceptable specification for the base standard. A number of people had their opinion changed by the discussion. It was also pointed out the EEE Task Force will require volunteers for this task and for other editorial tasks.

"Which approach do you prefer for 100BASE-TX, EEE specification?"

A: Edit Clause 25 in the same style as the current standard to add EEE function. : prefer – 0 : dislike - 15

B: "Soup to nuts" rewrite of Clause 25, bring in the content of TP-PMD and include EEE functions alongside legacy behavior. : prefer – 15 : dislike - 0

C: Make an entirely new clause that integrates the content of TP-PMD but describes only EEE behavior. : prefer – 7 : dislike - 3

Dan dove presented "xxMII Clarifications" (dove_02_0508.pdf).

The discussion focused on the assumed existence of an "LPI agent" that can control the assertion and reception of LPI and that can ensure that MA_data_request (etc.) is suppressed for the appropriate times.

Rob Hays presented a revised version of "Capabilities Negotiation Proposal for Energy-Efficient Ethernet" (hays_02_0508.pdf).

Rob indicated that the resulting presentation would be suitable as a baseline proposal, generating some discussion around the operating principles.

Motion # 1

"802.3az Task Force adopt EEE Capability Negotiation proposal in hayes_02_0508.pdf as part of the baseline solution for Energy Efficient Ethernet."

Moved by: M. Traeber Seconded by: H. Barrass

Minimal discussion followed

Technical; >75% required to pass
Y: 21
N: 0
A: 0

Motion passes.

Motion # 2
"802.3az Task Force adopt 10GBASE-T proposal in taich_02_0508.pdf as part of the baseline solution for Energy Efficient Ethernet."

Moved by: R. Hayes Seconded by: H. Barrass

Minimal discussion followed

Technical; > 75% required to pass
Y: 20
N: 0
A: 1

Motion passes.

Motion # 3

"802.3az Task Force adopt proposal in chadha_01_0508.pdf to reduce transmit amplitude for a EEE 10BASE-T PHY to 1.75Vp and the associated Twisted Pair Model for a Class D (Category 5) or better cable as the baseline for the EEE objective to define an energy efficient 10 megabit PHY."

Moved by: M. Chadha Seconded by: H. Barrass

Minimal discussion followed

Technical; > 75% required to pass
Y: 22
N: 0
A: 0

Motion passes.

Joseph Chou presented a revised version of "EEE Compatible MII/GMII Interface" (chou_03_0508.pdf).

There were some questions and comments about the details.

Motion # 4

"Adopt EEE compatible xMII Interface proposal in chou_03_0508.pdf as part of the baseline solution for Energy Efficient Ethernet."

Moved by: M. Traeber Seconded: M. Chadha

No discussion on the motion

Technical; > 75% required to pass
Y: 21
N: 0
A: 1

Motion passes.

Motion # 5

"Move that the IEEE 802.3az TF add 1000BASE-KX to the list of supported PHYs in its Objectives."

Moved by: D. Koenen Seconded by: B. Booth

No discussion on the motion

Technical; > 75% required to pass
Y: 22
N: 0
A: 0

Motion passes.

Motion # 6
"Request that the 802.3az editor create a draft based on adopted baseline proposals for circulation prior to the July 2008 plenary meeting."

Moved by: R. Grow Seconded by: G. Zimmerman

Procedural; > 50% required to pass
Y: 23
N: 0
A: 0

Motion passes.

Dan Dove presented another revised version of "xxMII Clarifications" (dove_04_0508.pdf).

There were some questions and comments about the details.

It was noted that dove_02_0508.pdf and chou_02_0508.pdf both relate to the same interface with chou_02_0508.pdf defining some optional modifications to the mechanism defined in dove_02_0508.pdf.

Motion # 7

 802.3az Task Force adopt
"dove_02_05_08.pdf - Energy Efficient Ethernet Switching Perspective" and
"dove_04_05_08.pdf - Energy Efficient Ethernet xxMII Clarifications"
As baseline proposals for an initial draft document.

Moved by: D. Dove Seconded by: H. Barrass

There was no discussion on the motion

Technical; >75% required to pass
Y: 21
N: 0
A: 0

Motion passes.

Motion to adjourn P: Dove S: Zimmerman - passed by voice

Meeting adjourned at 5.08pm