IEEE 802.3ab TASK FORCE INTERIM MEETING

Merrimack Hotel & Conference Center, Merrimack, NH, April 27-28, 1998

MAIN RESULTS OF THIS MEETING:

- The blind startup protocol based on the HDSL approach was adopted for the 1000BASE-T PHY Control.

- The 76 comments to Draft 2.1 were resolved.

- A page-by-page review of the whole draft was conducted.

NEXT MEETING (EDITORIAL): June 4-5, 1998, San Jose, CA. **PLENARY MEETING:** July 6-8, 1998, Hyatt Regency, La Jolla, CA.

***MINUTES (approved 7/7/98)

***MONDAY, APRIL 27, 1998

The meeting was called to order by George Eisler, Chairman, at 9:05 AM. The list of the 50 attendees is part of these minutes.

Geoff Thompson, Chair of 802.3, reiterated the IEEE and the Working Group patent disclosure policy: all parties that have patents or believe that they may have patent claims need to provide a letter to Geoff Thompson/IEEE as early as possible regarding their willingness not to charge for the patents or do so in a reasonable and non-discriminatory terms.

George Eisler discussed the agenda for the meeting, which is included as Addendum 1 to these minutes.

PRESENTATION 1: "Duffer's intro to start-up" by Colin Mick (paper copy is attached to these minutes).

PRESENTATION 2: "The Montreal Startup Protocol: Overview, Resolution of Comments, and Comparison with Alternatives" by Oscar Agazzi *et al.* (paper copy is attached to these minutes). Also distributed, but not presented: "Signal Detect Simulation Results" by Oscar Agazzi *et al.* (paper copy is attached to these minutes).

PRESENTATION 3: "PHY Control for 1000BASE-T" by Sailesh Rao, Hiep Tran, and Jaime Kardontchik (paper copy is attached to these minutes).

PRESENTATION 4: "Blind Startup: Master Simulations" by Jaime Kardontchik (paper copy is attached to these minutes).

STRAWPOLL: Individuals preferring... (choose only one):Three-phase startup9Blind startup16Abstain23

LUNCH BREAK from 12:45 PM until 2:10 PM.

MOTION 1 (technical---later was ruled out of order by the Chairman): "We propose the Committee adopt the start-up procedure approved at the February 1998 San Jose Interim (three-phase with bypass) with changes to PCS by John Creigh (submitted to reflector)." Moved by Dan Ray and Henry Samueli; Seconded by Paul Nikolich.

MOTION 2 (procedural---failed): "Move to table" Moved by Payne; Seconded by Thaler. In favor: 12; Against: 18; Abstain: 7. Motion 2 failed.

Debate on Motion 1 continued. Hiep Tran requested Sailesh Rao, an employee of Level One Communications, whether there is any intellectual property regarding blind startup; he answered no. Hiep asked Henry Samueli, an officer of Broadcom Corporation, whether there is any intellectual property in the three-phase startup; he answered that there wasn't any. Henry Samueli asked whether there was any essential intellectual property from Level One; Dan Ray indicated that he wasn't an officer of Level One and therefore couldn't respond officially, but in his opinion there wasn't any. Geoff Thompson indicated that this discussion should be stopped since this matter was covered by the official call for patents.

After significant debate, the Chair ruled Motion 1 out of order and requested a return to the agenda.

The group continued to discuss the three-phase startup and the blind startup during the rest of the afternoon.

DINNER BREAK from 6:30 PM until 8:20 PM.

The morning presenters addressed specific questions about their presentations. Then a final motion was proposed:

MOTION 3 (technical---approved): "Adopt a blind startup protocol based on the HDSL approach with two modifications: (1) the slave must begin transmitting within 350 msec after auto-negotiation is completed by slave, (2) the peak-to-peak jitter spec on the master and slave transmitters is reduced from 2.4 nsec to 1.4 nsec." Moved by H. Samueli, seconded by D. Ray. In favor: 35; Against: 0; Abstain: 5. Motion 3 carries.

***TUESDAY, APRIL 28, 1998

The meeting was called to order by the Chair, George Eisler at 8:40 AM.

The minutes for the Plenary Meeting in Irvine, March 9-11, 1998, as posted on the reflector on 3/13/98, were approved by acclamation. The approved minutes will be posted on the reflector on 4/28/98.

PRESENTATION 5: "*Multi-Disturber Next*" by Terry Cobb (paper copy is attached to these minutes).

PRESENTATION 6: Hybrid cable and TIA/EIA TR41.A.1 Liaison by Chirs Di Minico

PRESENTATION 7: Updated write-up for section 40.6 by Richard Murphy (paper copy enclosed to these minutes).

Dan Dove proposed changes and answered questions about Auto MDI/MDIX.

MOTION 4 (technical---approved): "*Move to include auto MDIX function in clause 40*" Moved by A. Castellano, seconded by J. Creigh. In favor: 19; Against: 0; Abstain: 1. Motion 4 carries.

Colin Mick led the discussion of the technical comments to D2.1 numbered 1 thru 21 (a paper copy of these comments is attached to these minutes). Comments referring to signal detect were withdrawn since signal detect has been removed from the draft.

LUNCH BREAK from 12:30 PM until 1:30 PM.

The discussion and resolution of comments numbered 22 thru 76 of D2.1 proceeded during the afternoon.

Chris Di Minico proposed a letter from 802.3 to other standards organizations to clarify the cabling requirements for 1000BASE-T. The members agreed with its contents after some editorial changes. (A paper copy is attached to these minutes).

MOTION 5 (technical---approved): "Move to accept all comments as resolved during the meeting and direct the editor Colin Mick to issue draft 2.2 for use by the editor to create draft 3.0 for circulation prior to July 1998."

Moved by C. Mick, seconded by C. Di Minico. Approved by acclamation.

A page-by-page review of the whole draft was led by Colin Mick, editor.

Colin Mick to post D2.2 by Friday, May 8, 1998.

An editorial meeting will take place June 4-5, 1998 in San Jose, California to prepare D3.0. Colin Mick to post D3.0 by Saturday, June 6, 1998.

The meeting was adjourned at 4:45 PM.

Respectfully submitted,

Juan Jover Level One Communications, Inc. Secretary

*****ADDENDUM 1: AGENDA (as proposed by George Eisler)**

Monday, April 27, 1998: Start-up

9:00AM - 9:15 AM	Opening coordination
9:15 AM - 10:00 AM	Duffer's intro to start-up (Colin Mick)
10:00 AM - 11:00 am	Discussion of structured start-up (Oscar Agazzi)
11:00 AM - Noon	Discussion of blind start-up (Sailesh Rao, Hiep Tran, Jaime
Kardontchik)	
Noon - 1:00 PM	LUNCH
1:00 PM - 6:00 PM	Questions, discussion and analysis of start-up
6:00 PM - 8:00 PM	DINNER
8:00 PM - 10:00 PM	Continuation of start-up discussion (if needed)

Tuesday, April 28, 1998: Resolution of open issues; comment resolution and draft review

8:30 AM - 9:00 AM	Planning for May-June work
9:00 AM - 9:30 AM	Open link issues (Terry Cobb)
9:30 AM - 10:00 AM	Management and auto-negotiation (Mark Feuerstraeter)
10:00 AM - 10:30 AM	Auto MDI/MDIX (Dan Dove)
10:30 AM - Noon	Page-by-page and draft review (Colin Mick)
Noon - 1:00 PM	LUNCH
1:00 PM - 5:00 PM	Continue draft and comment review

*****ADDENDUM 2: ALPHABETICAL LIST OF THE 50 ATTENDEES**

Agazzi, Oscar, Broadcom, 714-450-8700, oea@broadcom.com Balmer, Keith, Texas Instruments, +44-1604-663408, keith.balmer@tiuk.ti.com Bohbot, Michel, NORDX/CDT, 514-822-7028, michel.bohbot@nordx.com Booth, Brad, JATO Technologies, 512-407-2135, bbooth@jatotech.com Brady, Douglas, 719-395-9166, dmbrady@aol.com Buckmeier, Brian, BelFuse, 619-273-0618, bbuckmeier@belfuse.com Castellano, Andy, Broadcom, 714-450-8700, ajc@broadcom.com Chen, David, Lucent, dchen@dzchen@lucent.com Cobb, Terry, Lucent Creigh, John, Broadcom, 714-450-8700, jcreigh@broadcom.com Dabiri, Darius, LSI Logic, 408-954-3431, dabiri@lsil.com Deb, Alak, XaOti, 408-487-0802, alak.deb@xaqti.com Deng, Chao, Level One, 732-972-0707, jeffcd@level1.com Dickens, Erik, Texas Instruments, 972-480-2525, edickens@ti.com Di Minico, Chris, CDT Corp., 978-537-9961, cd@mohawk-cdt.com Dineen, Thomas, LSI Logic, 408-954-3739, dineen@lsil.com Dove, Dan, HP, 916-785-4187, dan dove@hp.com Eisler, George, Rockwell, 310-459-9225, geisler@aol.com Fritz, Scott, TDK Semiconductor, 530-478-8271, scott.fritz@tsc.tdk.com Gladstone, Bruce, ComCore, 818-880-5192, bruce@comcore.com Guo, Bin, AMD, 408-749-5076, bin.guo@amd.com Hagopian, Vahe, Level One, 732-972-0707 x12, vaheh@level1.com Haddoc k, Stephen, Extreme Networks, 408-863-2812, shaddock@extremenetworks.com Hatamian, Mehdi, Broadcom, 714-450-8700, mehdi@broadcom.com Healey, Adam, UNH, 603-862-3568 adam.healey@unh.edu Hinrichs, Henry, Pulse, 619-674-8208, henryhinrichs@pulseeng.com Hsu, Jacob, Trigo Systems, 310-544-3335, jacobh@earthlink.net Jover, Juan, Level One, 305-674-8880, juan@level1.com Kaplan, Hadriel, UNH, 603-862-3332, hadriel.kaplan@unh.edu Kardontchik, Jaime, AMD, 408-749-5103, jaime.kardontchik@amd.com Koenig, Christine, Magcon, 619-513-2140, ckoenig@magconinc.com Law, David, 3Com, +44-1442-438060, davel@pdd.3Com.com McConnell, Mike, Broadcom, 714-450-8700, mikem@broadcom.com Miao, Tremont, ADI, 781-937-1222, tremont.miao@analog.com Mick, Colin, The Mick Group, 650-856-3666, ckm@mickgroup.com Murphy, Richard, Level One, 916-855-5177, rmurphy@level1.com Murthy, Samba, XaqTU, 408-487-0800, samba.murthy@xaqti.com Nikolich, Paul, Broadband Access Systems, 978-635-1116, p.nikolich@ieee.org Payne, John, JLP Associates, 408-873-7856, jlpa@ix.netcom.com Pryor, Steve, Compag, 972-929-6910, steve.pryor@compag.com Rao, Sailesh, Level One, 732-972-0707 x11, sailesh@level1.com Ray, Dan, Level One, 916-858-5000, dray@level1.com Rennie, Larry, ComCore, 878-880-5192, larry@comcore.com Reinhold, Barry, UNH, 603-862-4532, bbr@unh.edu Ross, Tam, Level One, 916-856-5177, tross@level1.com

Sallaway, Peter, ComCore, 619-535-0074, peter@comcore.com Samueli, Henry, Broadcom Corp., 714-450-8700, samueli@broadcom.com Tran, Hiep, Texas Instruments, 972-995-7885, htran@hc.ti.com Thaler, Pat, HP, 916-785-4538, pat_thaler@hp.com Thompson, Geoff, Bay Networks Vafiades, Todd, Broadcom, 207-883-2789, vafiades@broadcom.com