

IEEE 802.5 Committee
August 27th, 1997
Boston, MA
Meeting 'dd'

John Messenger
Proteon LAN Products, York R'n'D

Summary

This is the official unapproved minutes of the 802.5 Interim meeting, held August 27th in Boston, MA.

Attendees

Full time

George Duane
Keith Luke
Tam Ross, IBM
Bob Love, IBM
Ken Wilson, IBM
Ivan Oakley, Cisco
Paul Gessert, Bay
Chin Peng, Cabletron
John Messenger, Proteon LAN Products
John L. Hill
David Ochensky
William Douglas
Ed Wong, Cabletron
Kevin Karcz
Diane Schmidt
Ed Harper, 3Com
Ted Fornoles
Kurt Eckles
Mick Hanrahan, Texas Instruments
Paul Gessert, Bay Networks
Trevor Warwick, Madge
David Wilson, Madge
Peggy DiMauro, Novacom
Avishay Noam, Novacom
Shay Agmon
Sharon Wilbur, Madge
Benny Jensen, Olicom
John Stephen, SilCom
Dick VanOverbeke, SilCom
Quentin Depina, SilCom
Tom Jacobs, Bay Networks
Ken Kutzler
Chin Peng, Cabletron
Scott Valcourt, UNH
Kevin Tolly

Detailed Meeting Minutes

Introduction, etc.

Agenda approved. Bob to supply electronic copy.

All meeting papers to be supplied to Mick Hanrahan in electronic format. He will supply PDF to the IEEE ftp site and John Messenger for the Proteon 802.5 Document Archive.

Bob will add today's attendees to the 802.5 electronic mailing list.

Presentations

A call for presentations was made and the following ones were announced.

<i>Author</i>	<i>Title</i>
Wilson, K	Changes to TXI protocol for 100Mbit/s operation
Wilson, D	Need to do Gigabit in parallel
Jensen, B	High Speed Token Ring PMD Options
Valcourt, S	UNH Token Ring Interoperability Lab 100Mbit/s?

High Speed Token Ring

Tolly round table presentation, given by Kevin Tolly

Kevin Tolly gave a presentation summarising yesterday's Tolly Round Table on High Speed Token Ring prior to the meeting.

- Standards-based
- Preservation of key token ring attributes (frame size, source routing, priority, availability) - Native?
- Time to market?
- Cost
- Scalability
- Initially dedicated only
- Speed 100 Mbit/s?
- Integration of TR and Ethernet (not a key goal)
- Use an existing PHY
- Support existing wiring
- Desirability of autosensing adapters supporting both existing and future speeds
- Need a credible story for migration of the desktop to HSTR, be that shared or cheap dedicated switched ports.

Therefore, we resolve to pursue an 802.5 standard for dedicated token ring that scales from 100Mbit/s to at least 1Gbit/s. The standard will support key attributes of today's token ring and will be developed in time to allow for multivendor demonstrations of high-speed token ring technology at the Network and Interop in Las Vegas, May 1998. The standard will support the 802.1Q standard for multiple VLANs. The goal of this standard effort is to deliver the most cost-effective upgrade path for TR customers.

Ken Wilson, Changes to TXI Protocol for 100Mbit/s operation

Ken outlined his findings that shared at 100Mbit/s is expensive and difficult. So they have chosen dedicated only at 100Mbit/s. A mapping layer will be necessary to minimize the changes to the MAC by translating existing signals from the PHY.

Ken notes that 100T4 is a small, simple macro that can be integrated into a MAC chip. 100T2 is a large, DSP-based expensive solution.

The clauses in the existing document are listed and impact summarised.

Benny Jensen, Olicom Presentation: PHYS for 100Mbit/s

General Requirements

- Must utilize some existing PHY technology to meet time to market requirements
- Preferably standardized interface to MAC to utilize on-market components
- Preferably auto-sense 16Mbit/s

Existing Technology

- 100Mbit Ethernet TX
 - Full duplex capable
 - Good backing by manufacturers
 - Single IC
- 155 Mbit ATM on UTP
 - Full duplex capable
 - Requires two pair UTP cat 5.
 - Requires multiple ICs
 - Good backing from manufacturers
 - More expensive than 100Mbit Ethernet
- 100 Mbit FDDI/CDDI
 - Full duplex capable
 - Requires two pair UTP cat 5.

MAC Standard Interface

- MII
 - Nibble wide, 25MHz full duplex data
 - Serial Management path
 - Dedicated control pins for ethernet
- UTOPIA
 - Byte wide 25MHz full duplex
 - No management path
- SATURN
 - Derived from UTOPIA

Recommendations:

- PMD
 - 100Base-TX best choice for cost effectiveness and silicon availability
 - ATM155 PMD is faster (could be 160/16) but currently double the cost.
- PHY/MAX interface
 - MII

Lunch

Procedural Posturing

There was extensive discussion on what was very appropriate in terms of, "Heh!, here's what we are doing," etc., etc. It's planned to give a tutorial. An aggressive timeline including much offline work was drawn up.

The Five Criterea

A great deal of wordsmithing and detailed consideration was given to each of the points in the strawman five criterea document produced by Bob Love from the wording we used last time.

The meeting adjourned at 4.40pm.

Document List

<i>Number</i>	<i>Title</i>	<i>Author</i>
08-00	Document list	RD Love
08-03	Proposed schedule for the development of a HSTR standard	RD Love
08-07	TXI Access Protocol 100 Mbit/s 802.5 Changes	KT Wilson

Straw Polls

<i>No.</i>	<i>Proposer</i>	<i>Seconded</i>	<i>Motion</i>	<i>Y</i>	<i>N</i>	<i>A</i>	<i>Pass / Fail</i>
dd1	RD Love	M Hanrahan	That the agenda be accepted, as modified	31	0	1	Pass
dd2	J Messenger	B Jensen	That the schedule proposed in document 802.5/97/08-03 for HSTR standard development be adopted	25	0	2	Pass
dd3	Jensen	D. Wilson	That 100BaseTX be adopted as the initial copper PHY for High Speed Token Ring	24	1	2	Pass
dd4	Messenger	Wong	That 3 separate PARs be developed and delivered to the LMSC executive committee by October 10th for consideration at the plenary meeting: (1) 100Mbit/s token ring with 100BaseTX PHY; (2) 100Mbit/s token ring with 100BaseFX PHY; (3) Gigabit token ring.	24	0	2	Pass