

# IEEE 802.5

July 6<sup>th</sup> - 10<sup>th</sup>, 1998  
La Jolla, CA

## Minutes of meeting 'GG'

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<i>Revision History</i>		
<b>r0</b>	10 July 98	End of recording
<b>r1</b>	14 July 98	First release

## Attendees

### *Full Time:*

Andy Fierman  
Simon Harrison  
John Hill  
Neil Jarvis  
Ivar Jeppesen  
Robert Love  
John Messenger  
Ivan Oakley  
Karl Reinke  
Bob Ross  
Tam Ross  
Scott Valcourt  
Ken Wilson

Brian Buckmeier  
Christian Thrysø  
Mark French  
Kathy Wilhelm

### *Part Time:*

Christine Koenig  
Thaddeus Kuziela  
Henh Chenh  
Marty Haslam  
Alan Flatman  
Denis Beautoin  
Ken Hall

## 802.5t, Draft 2.1B, Ballot Results.

The ballot on 802.5t, 100Mbit/s DTR, Draft 2.1B closed successfully at noon (PST), Sunday, 5<sup>th</sup> July. Since this was a recirculation ballot, votes against draft 2.0 are carried forward to this ballot, unless changed by a new vote. The balloting pool for the recirculation ballot was made up of all members who had submitted a vote against draft 2.0. This gives us a balloting pool of 23 members. Before comment resolution, the ballot to approve draft 2.1B failed. After comment resolution, the ballot to approve draft 2.1B passed. Full results are as follows:

Voting Members	Draft 2.0 Vote	Draft 2.1B Vote Received At End of Ballot Period	Draft 2.1B After Comment Resolution
Peggy Jean DiMauro	Approve	Approve <sup>(CF)</sup>	Approve
Andy Fierman	Approve	Disapprove <sup>(N)</sup>	<b>Disapprove</b>
Paul Gessert	Approve	Approve <sup>(CF)</sup>	Approve
Michael Hanrahan	Disapprove	Disapprove <sup>(CF)</sup>	<b>Disapprove</b>
Simon Harrison	Approve	Disapprove <sup>(N)</sup>	Approve <sup>(*)</sup>
John Hill	Approve	Approve <sup>(CF)</sup>	Approve
Bob Hubbard	Abstain	Abstain <sup>(CF)</sup>	Abstain
Neil Jarvis	Approve	Disapprove <sup>(N)</sup>	Approve <sup>(*)</sup>
Ivar Jeppesen	Approve	Disapprove <sup>(N)</sup>	Approve <sup>(*)</sup>
George Lin	Abstain	Abstain <sup>(CF)</sup>	Abstain
Bob Love	Approve	Approve <sup>(CF)</sup>	Approve
Keith Luke	-	<i>Not eligible</i>	<i>Not eligible</i>
John Messenger	Disapprove	Disapprove <sup>(N)</sup>	Approve <sup>(*)</sup>
Avishay Noam	Approve	Approve <sup>(CF)</sup>	Approve
Ivan Oakley	Abstain	Abstain <sup>(N)</sup>	Abstain
Syou-Chin Peng	-	<i>Not eligible</i>	<i>Not eligible</i>
Karl Reinke	Approve	Approve <sup>(N)</sup>	Approve
Bob Ross	Approve	Approve <sup>(N)</sup>	Approve
Tam Ross	Approve	Approve <sup>(N)</sup>	Approve
Steve Scandalis	-	<i>Not eligible</i>	<i>Not eligible</i>
Carson Stuart	-	<i>Not eligible</i>	<i>Not eligible</i>
Bo Thomsen	Disapprove	Disapprove <sup>(N)</sup>	<b>Disapprove</b>
Scott Valcourt	Abstain	Abstain <sup>(N)</sup>	Abstain
Trevor Warwick	Abstain	Abstain <sup>(CF)</sup>	Abstain
Dave Wilson	Disapprove	Disapprove <sup>(N)</sup>	<b>Disapprove</b>
Ken Wilson	Approve	Disapprove <sup>(N)</sup>	Approve <sup>(*)</sup>
Ed Wong	Approve	Approve <sup>(CF)</sup>	Approve

<sup>(N)</sup> Indicates a new vote    <sup>(CF)</sup> Indicates a vote carried forward  
<sup>(\*)</sup> Indicates a vote changed by comment resolution

Measurement	Count (Before)	Count (After)
Balloting pool size	23	23
Approve vote count	9	14
Disapprove vote count	9	4
Abstain vote count	5	5

Question	Criteria	Result	Answer
Ballot Closes?	≥75% of voters participated	100%	Yes
Ballot Passes? (Before)	≥75% of Approve/Disapprove votes are Approve	50%	No
Ballot Passes? (After)	≥75% of Approve/Disapprove votes are Approve	>75%	Yes

## Daily Notes

**Monday, 6<sup>th</sup> July 1998**

### 802.5t/Draft 2.1B Comment Resolution

Comment database was made available to the document editors. Working group broke until Tuesday morning to allow the editors time to review the comments. The database report will also be made available for all committee members on Tuesday morning.

### 802.5 Opening Plenary

- Status of PARS (including maintenance)  
ISO/IEC 8802-5:1998 published, and will be available during this week.  
ISO/IEC 8802-5:Amd 1:1998 to be published July 13.  
Maintenance PAR. Approved by SEC, but still to be forwarded to NesCOM. Do we need a revision PAR as well?  
Source Routing over VLAN: Now on SEC e-mail reflector.
- Election of Officers  
By acclamation, Neil Jarvis is appointed as Recording Secretary.  
By acclamation, John Messenger is appointed as Vice-Chair.
- Report on 802 rules  
The EXEC are reviewing the 802 rules, including "How to become and remain a voter". Until these rules are approved, we will continue to employ the rules described by Mick Hanrahan.
- Other 802 business  
The CD-ROM of standards is in jeopardy, because it is impacting IEEE revenue, however the EXEC are attempting to continue to issuing of the CD-ROM.
- Source Routing over VLANs study group extension  
This study group comes to an end at this plenary meeting. The study group to date has managed to produce a PAR and the 5 Criteria, but these failed to get to the EXEC within the required 30 day period. We would like to extend the study group for another plenary period. [VOTE: 07-02 - PASSES]
- Refreshing MIBs  
The Annex K MIB is an IETF document which is about to expire. Someone needs to champion this MIB. Also draft 2.1B has a TECH/DIS comments against this MIB, so the issue has become more urgent. In addition, the clause 11 MIB (DTR management) is out of date for HSTR.

Q: Are the comments legal as comments in a recirculation ballot?

A: If not they would be during LMSC, so let's deal with them now.

Q: Are changes to management allowed given the scope of the PAR for 802.5t?

A: The PAR allows for both interpretations.

Q: What would the result be of not making the changes?

A: Product would be shipped with non-interoperable management, as enterprise MIBs would have to be created to support 100Mbit/s.

[ACTION: ALL: OPEN ITEM TO BE INVESTIGATED]

- IEEE Patent policy  
If you are aware of any patents relating to HSTR (and all other token ring areas), please make them known to Bob Love.
- Document control (KT Wilson)  
In Israel, it was decided that we would continue to use change bars in clause 9, 9.1, 9.2 and 9.3 which would show changes relative to the DTR standard. There have been comments that this makes it more difficult to review the changes between draft releases. In light of publication of Amd 1, which has numerous editorial changes to these clauses, the change bars are no longer correct.

Ken is asking to change this approach and accept all changes on draft 2.1b, and then use change bars to show changes between draft 2.1b and draft 2.2. **[VOTE: 07-11 APPROVES THIS APPROACH] [VOTE: 07-18 FOR IEEE PUBLICATION METHOD]**

- Any other business

John Hill noted a historical inaccuracy. The Khyber Pass was not the scene of the charge of the light brigad. Thank you John.

**Tuesday, 7<sup>th</sup> July 1998**

## **802.5t/Draft 2.1B comment resolution**

The following process will be used for the resolution of DIS comments against the draft.

1. Clause editors are instructed to contact all who have open DIS items against their Clauses. Proposed solutions should be reviewed by the commenter for their concurrence that the proposed solution resolves the DIS.
2. If the proposed solution does not resolve the DIS, or if the editor is unable to obtain written confirmation that the proposed solution resolves the DIS, then the DIS comment must be posted with the ballot along with the editor's explanation for choosing the proposed resolution. The DIS commenter may post an additional reply, as to why the proposed resolution is not deemed satisfactory.

The comment database report print out was made available, but due to operator error some of the text was lost in the print out. This will be rectified in the next version of the report, but we will try to struggle on with the on-line databases.

Ken Wilson has now taken ownership of clause 2. [ACTION: NAJ TO GET CLAUSE 2 SOURCES TO KTW]

## **The 802 processes, and how to follow them. Jim Carlo and Denise Pribula.**

Jim went through the state of all 802.5 PARs and documents. These statuses are available from the IEEE web site, and our own web site has links directly from our documents to this information.

### *Documents:*

ISO/IEC 8802-5:1998

ISO/IEC 8802-5:1998/Amd. 1: 1998

802.5c-1991

### *PARs:*

802.5t Dedicated Token Ring at 100Mbit/s

802.5v Dedicated Token Ring at 1000Mbit/s

802.5x Maintenance Supplement

802.5t should go to ISO JTC1TAG at November, as a working draft.

A new LMSC ballot pool is being formed for 802.5t, with a new cover letter reflecting the updated 802.5t PAR title and scope.

Bob Love is to send the ballot pool members to the reflector, and invite additional committee members to join. Non-IEEE members can join as observers.

## **802.5t/Draft 2.1B comment resolution: Abort Sequence**

The abort sequence questions raised at UNH were discussed in committee. A number of questions were posed, and implementers were asked to supply answers before the end of the meeting. The questions and answers are captured in paper 07-20.

The result of the answers is the following set of words

“An abort sequence shall be transmitted on an octet boundary, but may optionally be transmitted on any nibble boundary in the case of a STATION\_ERR or PORT\_ERR.

An implementation shall be capable of receiving an abort sequence on any nibble boundary. An implementation may optionally count a frame received with an abort sequence on a non-octet boundary as a line error.”

which were approved for inclusion in the standard by straw poll 07-23. [STRAWPOLL: 07-23]

**Wednesday, 8<sup>th</sup> July 1998**

### **802.5t/Draft 2.1B comment resolution**

After the database merge in the morning generated databases that only Neil's machine could read, we reverted to a pre-merged database and made good progress through the comment database. All review comments that have not been postponed until tomorrow or are awaiting agreement from commenters who are not present, have now been addressed by the committee.

### **802.5t/Draft 2.1B comment resolution: Clause 1 and Annex A**

Clause 1 sub-clauses defining the conformance statements (1.6, 1.7, 1.8, 1.9, 1.10) are not in line with Annex A. NAJ-30 suggests deleting clause 1. However, we have an ISO requirement to keep the conformance information.

There is an idea to keep very high level statements in clause 1, and refer the reader to Annex A for a detailed statement of conformance.

### **802.5 Committee electronic balloting process**

John presented his paper 07-13r1 on a possible electronic balloting process. Committee discussion moulded these rules into a form that will form the basis of vote 07-12 tomorrow, giving people the night to sleep on it.

John Hill has suggested that if the procedure is approved, once it is used, the committee should hold a post-mortem, and refine any issues. Tam Ross also pointed out that the chair must ensure that all voters are also on the email reflector.

Neil Jarvis pointed out that this motion could disenfranchise existing electronic balloting voters who are unable to attend plenary meeting of the 802.5. As a courtesy, Neil believes that it would be appropriate to conduct the voting on the new rules via the existing electronic balloting process, as passed by motion 8 during the November 1996 plenary meeting in Vancouver, BC. There was however resistance to this idea, with the stated reason that these voters should be attending, and it was within the rules of the committee to change those operating rules at any plenary session. Neil agreed that there was nothing illegal about changing the voting rules, but restated his belief that it would be a courtesy to use electronic voting. This suggestion was not followed by the committee.

**[VOTE: 07-12 APPROVED THE NEW RULES]**

**Thursday, 9<sup>th</sup> July 1998**

### Gigabit connector presentation – John Hill, Ken Hall

Proposal to add a new copper connector (High Speed Serial Data Connector - HSSDC) for 100 Mbit/s. Connector is used by Gigabit Ethernet applications today. It was noted that the cables for these connectors are wired in a crossover pattern, which would require a change to the standard to support.

### 802.5t/Draft 2.1B comment resolution: Return Loss/Impedance specification

A teleconference was held in the morning to involve PHY experts from a number of companies. Minutes from this meeting (taken by Robert Love) are attached at the end of this document.

Andy Fierman presented his proposal to relax the impedance specifications:

At 4/16, a single transformer can be employed for both UTP and STP connectors. For 100 Mbit/s, TP-PMD specification of return loss, means that you cannot employ a single winding transformer to support both UTP and STP. Fast Ethernet has driven the magnetics market towards parts that support UTP only. HSTR requires a new set of components to support UTP and STP. This was not the purpose of the HSTR PAR. A 4/16/100 implementation further complicates the magnetics.

Andy Fierman proposes that return loss is relaxed to allow the same impedance match at 100 Mbit/s that we employ at 16 Mbit/s. This allows fast ethernet magnetics to be used. The issue is that this relaxation impacts the length of cable run that can be supported.

Andy made some measurements in the lab, which all exceeded the requirements of the standard today.

124 $\Omega$ : 128m of UTP

100 $\Omega$ : 260m of STP

124 $\Omega$ : 270m of STP

Andy Fierman also presented paper 07-22, which shows what the contributions to reflections are at 100 $\Omega$  and 150 $\Omega$ .

Andy has come to the conclusion (with agreement from Karl and Novacom) that the compromise impedance does not significant impact cable lengths.

BelFuse presented measurement figures of a multi-winding transformer that they believe satisfies existing requirements with negligible cost increase over existing 4/16 solutions.

More discussion will take place during the UNH test session. Andy will post an electronic motion, re-stating ANF-07 and ANF-08. Bob Love will call a 1-week vote on 17<sup>th</sup> July.

### 802.5v Gigabit strawman discussion

The committee reviewed a number of technical comments against draft 0.1 of the Gigabit PHY strawman. Time was limited, so not all comments were covered. The committee decided that Richard should update the strawman with these comments, and re-release it as draft 0.2 for a 30 day ballot on 17<sup>th</sup> July. [VOTE: 07-06]

### 802.5t/Draft 2.1B comment resolution: Clause 11 and Annex K

Neil Jarvis will update clause 11 and annex K and include them in draft 2.2 of 802.5t. [VOTE: 07-24]



***Friday, 10<sup>th</sup> July 1998***

**802.5t/Draft 2.1B: Assured delivery for trade-up**

A small core group of committee die-hards met in the morning to thrash out the assured delivery mechanism for high speed trade-up. This was in response to a DIS comment from Simon against draft 2.1B. Agreement was reached, and documented in paper 07-21. The assured delivery mechanism will be included in draft 2.2. [VOTE: 07-25]

## Motions

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-01
<b>Moved by:</b>	Scott Valcourt	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Simon Harrison	<b>Status:</b>	PASS
Move that:			
802.5 create a study group to investigate link aggregation, and ask the SEC to approve.			
<b>Yes:</b>	11	<b>No:</b>	0
<b>Abstain:</b>	3		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-02
<b>Moved by:</b>	John Messenger	<b>Date:</b>	6 Jul
<b>Seconded by:</b>	Bob Ross	<b>Status:</b>	PASS
Move that:			
The lifetime of the study group investigating source routing over VLAN study be extended until the November plenary.			
<b>Yes:</b>	12	<b>No:</b>	0
<b>Abstain:</b>	0		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-03
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 July
<b>Seconded by:</b>	Scott Valcourt	<b>Status:</b>	PASS
Move that:			
Simon Harrison and Robert Love are appointed as liaisons from 802.5 to the 802.3ad trunking (link aggregation) task force.			
<b>Yes:</b>	12	<b>No:</b>	0
<b>Abstain:</b>	2		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-04
<b>Moved by:</b>		<b>Date:</b>	6 Jul
<b>Seconded by:</b>		<b>Status:</b>	BY ACCLAMATION
Move that:			
John Messenger be appointed as 802.5 vice chair.			
<b>Yes:</b>		<b>No:</b>	
<b>Abstain:</b>			

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-05
<b>Moved by:</b>		<b>Date:</b>	6 Jul
<b>Seconded by:</b>		<b>Status:</b>	BY ACCLAMATION
Move that:			
Neil Jarvis be appointed as 802.5 recording secretary.			
<b>Yes:</b>		<b>No:</b>	
<b>Abstain:</b>			

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-06
<b>Moved by:</b>	Richard Knight	<b>Date:</b>	09 Jul
<b>Seconded by:</b>	Neil Jarvis	<b>Status:</b>	PASS
Move that:			
Draft 0.2 of 802.5v (Gigabit Token Ring) be posted as a PHY strawman draft for 30 day review, starting Friday 17 <sup>th</sup> July. Draft 0.2 will be based upon the resolution of comments against draft 0.1. Strawman draft comments to be collated using access databases to be provided by Neil Jarvis.			
<b>Yes:</b>	12	<b>No:</b>	0
<b>Abstain:</b>	0		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-07
<b>Moved by:</b>	Neil Jarvis	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	PASS
Move that:			
The committee accepts this meeting's straw polls and comment resolution on draft 2.1b of 802.5t.			
<b>Yes:</b>	11	<b>No:</b>	0
<b>Abstain:</b>	0		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-08
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Neil Jarvis	<b>Status:</b>	PASS
Move that:			
802.5t/d2.2 go out for a 19 day recirculation ballot on 30 <sup>th</sup> July (closing at 12pm GMT, 17 <sup>th</sup> August). Draft 2.2 will be based on draft 2.1b, the resolution of comments against that draft any additional changes approved by electronic voting and correction of any errors uncovered during UNH interoperability test session #1b (as allowed by vote 07-15).			
<b>Yes:</b>	11	<b>No:</b>	0
<b>Abstain:</b>	0		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-09
<b>Moved by:</b>	Karl Reinke	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	PASS
Move that:			
If the final recirculation ballot on 802.5t is successfully closed prior to the close of the August interim meeting, with no new negative votes after comment resolution, and with no technical changes required to resolve comments, and if, at the August interim meeting, at least 75% of those voting members voting yes and no approve, then forward the draft corrected per the comment resolutions to LMSC if SEC has also approved (See vote 07-19).			
<b>Yes:</b>	11	<b>No:</b>	0
<b>Abstain:</b>	0		

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-10
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	PASS

Move that:

If technical changes are made to close the comments against d2.2 and if at least 75% of those voting members at the August interim voting Approve or Disapprove to go out for a recirculation ballot vote Approve, then 802.5t/d2.3 (802.5t/d2.2 updated with comment resolution) shall go out for recirculation ballot. The timing of that ballot is to be determined at the August meeting.

**Yes:** 11 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-11
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	PASS

Move that:

802.5t draft documents be published by the editors with change bars against new text (shown with underlining) and deleted text (shown with strike-through), indicating the differences between consecutive balloted drafts.

**Yes:** 12 **No:** 0 **Abstain:** 1

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-12
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Tam Ross	<b>Status:</b>	PASS

Move that:

The electronic voting rules (as defined in 07-13r3) are adopted by the 802.5 committee. The rules to be subsequently published as part of the committee's standalone document "802.5/00-06: Committee Rules and Regulations".

**Yes:** 12 **No:** 1 **Abstain:** 1

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-13
<b>Moved by:</b>	Bob Ross	<b>Date:</b>	7 Jul
<b>Seconded by:</b>	John Messenger	<b>Status:</b>	PASS

Move that:

The minutes of the March plenary meeting ('FF' – Irvine, CA), published as 802.5/98/03-minr1, be approved.

**Yes:** 11 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-14
<b>Moved by:</b>	Karl Reinke	<b>Date:</b>	7 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	PASS

Move that:

The minutes of the May interim meeting ('ff' – Herzliya, Israel), published as 802.5/98/05-02r2, be approved.

**Yes:** 10 **No:** 0 **Abstain:** 1

<b>Straw Poll or Vote?</b>	<b>Vote</b>	<b>Number:</b>	07-15
<b>Moved by:</b>	Scott Valcourt	<b>Date:</b>	8 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	<b>PASS</b>

Move that:

The editors of 802.5t are empowered to make corrections required to fix errors uncovered during the UNH interoperability test session #1b to take place the week of July 13th, and include those corrections in Draft 2.2. A detailed description of the errors and their corrections will be posted to the reflector before the publication of the draft, to allow a wider audience to comment on their inclusion.

**Yes:** 9 **No:** 0 **Abstain:** 3

<b>Straw Poll or Vote?</b>	<b>Vote</b>	<b>Number:</b>	07-16
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Richard Knight	<b>Status:</b>	<b>PASS</b>

Move that:

All 802.5 working group voting on draft documents will use the following process:

Document distribution for balloting will be via posting to the IEEE 802.5 web site, with e-mail notification of document availability, balloting instructions and the voting form. Draft documents and ballot instructions will be posted in PDF format. It is the responsibility of all voting members to retrieve the posted documents. Votes would be sent to the official 802.5 e-mail reflector.

**Yes:** 11 **No:** 1 **Abstain:** 0

<b>Straw Poll or Vote?</b>	<b>Vote</b>	<b>Number:</b>	07-17
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	<b>PASS</b>

Move that:

The electronic vote:

"Approve SEC Forward a request to NesCom to revise the PAR for IEEE P802.5t, and if successful, withdraw the PAR for IEEE P802.5u. The revised PAR for P802.5t will include both the original project for P802.5t (twisted pair at 100 Mbit/s) and in addition the project for P802.5u (fibre at 100 Mbit/s). Since both projects have completed together and a single document has been voted and discussed in the token ring working group, this revised PAR will allow for a single IEEE sponsor ballot. The revised PAR form is at <http://www.8025.org/meetings/jul98/pdf/07-05r3.pdf>"

which was carried out on the e-mail reflector, and passed with the following results:

"Yes: 19, No: 1, Abstain: 0"

be ratified.

**Yes:** 11 **No:** 1 **Abstain:** 1

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-18
<b>Moved by:</b>	Ken Wilson	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Neil Jarvis	<b>Status:</b>	PASS

Move that:

802.5 recommends that the IEEE publish 802.5t with no change bars.

**Yes:** 11 **No:** 0 **Abstain:** 1

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-19
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	PASS

Move that:

Request SEC grant approval to forward 802.5t to LMSC sponsor ballot if the final recirculation ballot on 802.5t is successfully closed prior to the November plenary, with no new negative votes, and with no technical changes required to resolve comments.

**Yes:** 14 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-20
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	PASS

Move that:

If technical changes are made to close the comments against d2.2 and if approval is not reached at the August meeting to have a recirculation ballot, or if the d2.2 recirculation ballot does not pass, then issue a new Committee ballot. The timing of that ballot is to be determined at the August meeting.

**Yes:** 11 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-21
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	PASS

Move that:

Ask SEC to approve vote 07-02, extending the life of the source routing over VLAN study group.

**Yes:** 14 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-22
<b>Moved by:</b>	John Hill	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Tam Ross	<b>Status:</b>	PASS

Move that:

Accept as a design objective that gigabit token ring allow the use of gigabit ethernet active PMA/PMD components (1000BASE-T, -CX, -LX, -SX).

**Yes:** 2 **No:** 0 **Abstain:** 8

<b>Straw Poll or Vote?</b>	Straw Poll	<b>Number:</b>	07-23
<b>Moved by:</b>	Karl Reinke	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ivar Jeppesen	<b>Status:</b>	<b>PASS</b>

Move that:

802.5t specifies the transmission and reception of the abort sequence as follows:

“An abort sequence shall be transmitted on an octet boundary, but may optionally be transmitted on any nibble boundary in the case of a STATION\_ERR or PORT\_ERR.

An implementation shall be capable of receiving an abort sequence on any nibble boundary. An implementation may optionally count a frame received with an abort sequence on a non-octet boundary as a line error.”

**Yes:** 13 **No:** 0 **Abstain:** 1

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-24
<b>Moved by:</b>	Karl Reinke	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	<b>PASS</b>

Move that:

Neil Jarvis update clause 11, incorporating his comments from the draft 2.1b recirculation ballot. In addition, the change to annex K should be captured as a change instruction for inclusion in draft 2.2.

The split sources for clause 11 from draft 7.1 of 802.5r are to be supplied by RD Love by 14<sup>th</sup> July.

**Yes:** 9 **No:** 1 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Straw Poll	<b>Number:</b>	07-25
<b>Moved by:</b>	Neil Jarvis	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Ken Wilson	<b>Status:</b>	<b>PASS</b>

Move that:

An assured delivery mechanism as requested by comment SJH-34 be included in draft 2.2 of 802.5t. Ivar, Neil, Simon, Ken to formulate a complete solution to be posted for comment on the email reflector by Friday 17<sup>th</sup> July.

**Yes:** 11 **No:** 0 **Abstain:** 2

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-26
<b>Moved by:</b>	John Hill	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	John Messenger	<b>Status:</b>	<b>PASS</b>

Move that:

The schedule for the 802.5 interim meeting to be held in Harrisburg, PA during the week of 24<sup>th</sup> August will be as follows. The meeting will start at 9am on Monday morning, and break at noon on Friday.

**Yes:** 11 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Straw Poll	<b>Number:</b>	07-27
<b>Moved by:</b>	John Messenger	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	John Hill	<b>Status:</b>	PASS

Move that:

The committee desires to hold an interim meeting between the November and March plenary meetings. Madge Networks has offered York as a possible venue, during January 1999. The exact meeting dates to be determined during the August meeting.

**Yes:** 13 **No:** 0 **Abstain:** 0

<b>Straw Poll or Vote?</b>	Vote	<b>Number:</b>	07-25
<b>Moved by:</b>	John Hill	<b>Date:</b>	9 Jul
<b>Seconded by:</b>	Karl Reinke	<b>Status:</b>	PASS

Move that:

The 802.5v draft adopts the same physical interface as 1000BASE-CX (Short haul (<30m) copper) for token ring's short haul solution.

**Yes:** 2 **No:** 0 **Abstain:** 8



## **Minutes from Teleconference on Transceiver impedances:**

### ***Present during teleconference:***

Richard Knight	Andy Fierman
Tam Ross	Bill Zevin
Kathy Wilhelm	Ken Wilson
RD Love	

### ***Solution 1 – Relax Physical Layer Impedance specifications***

- Pros: This provides a single design with single tap transformer for 100 and 150 ohm cabling.  
Standard 100BaseT components used for 100 Mbit/s only Token Ring solution  
If 4/16/100 port – testing is done at same impedances at all 3 speeds,  
Same transceiver I/O impedances – simplifies PHY design.  
Single port for 100 and 150-ohm cabling
- Cons: Unknown degradation in performance of link – people supplying transceivers will be unwilling to guarantee performance on the link because they don't know.  
Most Fast Ethernet Testing is done in a 100-Ohm environment.  
Deviation and some degradation from 100BaseT performance on 100 cabling, which may and may not meet installed Cat 5 specifications.  
This proposal further changes the technical content of existing 802.5 PHY draft.  
Late in the day to be making changes with unknown ripple effect.  
There is not enough practical testing.

### ***Solution 2 – Leave Physical Layer Impedance Specifications unchanged***

- Pros: Leaves standard specifications that are known and well tested unchanged  
Allows dual impedance design using dual tap transformers which are easy to create.  
And relatively same projected cost as standard parts.  
Allows the use of already existing 100/150 ohm 100 Mbit/s external transformers
- Con: Separate ports needed for separate impedances (only a con if product Requirements don't already mandate separate connectors)  
For Ports could imply doubling of port/station switching circuitry  
Unique magnetics design for 100 TR. – Lower volumes.

### ***What level of independent verification of results exists?***

- Olicom: Analysis supports Madge analysis  
Bay: External transformers and direct connections both work with no performance degradation.  
No analytic data, just empirical. No cable length testing.  
IBM: Preliminary testing does not confirm Madge results.

### ***To whom is the decision on this issue important to Approval of the Standard?***

- J Messenger: It is important because, to go 100 Mbit/s to the desktop 4/16/100 are wanted. Simplified design will lead to more affordable product.  
J Hill: Generally uncomfortable – need to do homework.  
K Reinke: Can live with either solution.  
Olicom: Leaning toward support of relaxed impedance specifications for Port design.