

**Unconfirmed Minutes**  
**IEEE 802.3 CSMA/CD PLENARY**  
**St. Louis, MO**  
**March 11-14, 2002**

**MONDAY, 11 MARCH**

**ADMINISTRATIVE MATTERS**

Mr. Geoff Thompson, Chair 802.3 CSMA/CD, opened the Working Group plenary at 1300, by welcoming meeting attendees and introducing Mr. David Law, Vice-Chair 802.3, Mr. Robert Grow, Secretary 802.3 who recorded these minutes, and the Task Force Chairs: Mr. Jonathan Thatcher (802.3ae), Mr. Steve Carlson (802.3af), and Mr. Howard Frazier (802.3ah).

Mr. Thompson explained attendance rules, the email reflectors maintained by the committee, and described information available on the web site. The Working Group web pages contain a wealth of information about 802.3. This includes the 802.3 Operating Rules, descriptions of how to subscribe to the various email reflectors, meeting minutes and an archive of presentations to the Working Group and its subgroups. The 802.3 home page is: <http://www.ieee802.org/3>. Mr. Thompson stressed the importance of keeping contact information current as it is required to retain member status and for participation in Working Group ballot. Mr. Thompson also reminded attendees that participation in ballots was required of 802.3 members (voters).

The meeting agenda was distributed. Mr. Thompson reviewed the voting members of the Working Group <Voters> and the requirements to qualify for voting membership. The voters in peril list was presented <Voters in Peril> those on the list not meeting minimum attendance requirements during this week will lose voter status. He presented the potential voter list. The following indicated by \* on <Potential Voters> requested to become voting members: Anderson, Stephen; Artman, Doug; Atias, Ilan; Berman, David; Cook, Charles; Eckert, Edward; Golob Larry; Gustafsson, Jonas, Gyurek, Russ; Hass, Steven; Jones, Chad; Jonsson, Ulf; Kutzavitch, Walter; Lavasani, Javad; LeCeminant, Greg; Limb, John; Marris, Arthur; McSweeney, Brian; Mickelsson Hans; Moseley, Simon; Oksman, Vladimir; Papandrea, Gabriel; Peng, Lisa; Remein, Duane; Rooke, Sterling; Rundquist, Ron; Sambasivan, Sam; Shah, Sunil; Soto, Walt; Stitcia, Jim; Stuart, Richard; and Yoshihara, Osamu.

The attendance lists were explained and circulated. All attendees were told of the obligation to register for the meeting and pay the \$300 meeting fee. A discounted pre-registration rate of \$250 was available for this meeting and will be available for the July Vancouver meeting. A list of future meetings and registration instructions are available through the IEEE 802 web site home page, <http://www.ieee802.org>.

## **Agenda & Minutes (Monday)**

### ***MOTION:***

Approve the agenda <Opening Agenda>.

M: Mr. S. Carlson

S: Mr. T. Dineen

Approved without objection.

Approve the November 2001 Austin meeting minutes.

M: Mr. T. Dineen

S: Mr. Langston

Approved by voice without objection.

### **Working Group Activities Since Austin**

Working Group ballot was held on 802.3af following the November meeting. Sponsor ballot was held on 802.3ae after the November meeting and a recirculation ballot held prior to this meeting.

AMCC hosted the January interim meeting in Raleigh, NC for 802.3 Task Forces. An additional interim meeting for IEEE 802.3ae was hosted by Hewlett Packard in Santa Rosa, CA in February.

### **Standards Board Report**

The maintenance project, 802.3ag, was granted conditional approval at the December meeting, and was subsequently approved. This project was a revision of IEEE Std. 802.3, thus implicitly reaffirming the standard for another five years. The changes included in the project will be published in IEEE Std. 802.3-2002. This edition of the standard has been published in three volumes.

The issue of IEEE Std 802 resulted in publication without the concerns of the previous meeting being addressed.

Mr. Jim Carlo, Mr. Howard Frazier and Mr. Geoff Thompson are IEEE 802 people that are members this year on the standards board.

P802.15.1 was rejected by RevCom because the response to a technical comment was not responded in a technical way. The PAR also was not revised with the switch to Bluetooth technology, and the original PAR included compatibility with 802.11 (the substance of the negative ballot).

### **Executive Committee Report**

The July Closing SEC meeting will be on Friday from 1:00-5:00 PM. Mr. Thompson reviewed the tutorial schedule for this week.

Elections of all WG Chairs will occur this week, Paul Nikolich is the only SEC Chair candidate (elected by the SEC). He has identified the individuals willing to serve in the appointed positions. He also intends to modify the appointed positions. These appointed positions are subject to confirmation by the SEC.

The BOG proposed co-locating with IEEE 802 in July. There was SEC concern of their meeting with us when they have been conducting business related to IEEE 802 in closed session.

The Get IEEE 802® program was unilaterally changed by the BOG. IEEE Std. 802.3-2000 will not be available for free download for 12 months. The SEC voted to withhold financial contributions because of the unilateral action.

IEEE is not responding well on PR and are ill prepared to respond to press inquiries. This is recognized by IEEE staff and they are working on improvements. The request is that draft status information be provided two weeks in advance of the event.

The IEEE is continuing on implementing a program to require a license to claim compliance to IEEE standards. This is enmeshed with the assertion of IEEE trademark rights. The implementation of the trademark assertion is a lot of ® marks in draft documents.

Considerable comment was made on the deteriorating relationship between IEEE 802 and IEEE staff and governing bodies.

#### **PARs for Executive Committee Action**

802.16c is to be considered this week. When asked no one in the group desired to discuss the PAR.

#### **External Liaison Report – TIA TR-42**

Mr. Chris Diminico reported on the infrastructure work done within TR-42 <TR-42 Report>. He reviewed the Ethernet related work of various committees. These projects are run cooperatively to support 802.3 and other standards projects. The data center budget is tightening with the addition of capabilities like DTE power. There also is no common reference across disciplines (architects, power distribution and information technology).

#### **External Liaison Report – SC25/WG3**

Mr. Alan Flatman reviewed the work on structured cabling standards within ISO and CENELEC <SC25/WG3 Report>. ISO 11801 2<sup>nd</sup> Ed FCD vote was approved and PDIS is being prepared, no technical changes are permitted. 120 oh cable option was finally removed. The CENELEC version will trail slightly. New projects in harmony with TIA have been introduced for pathways and spaces. SOHO cabling is progressing.

#### **External Liaison Report – FO2.2**

Mr. Steve Swanson reported on the committees work o fiber specifications. Comments produced a change in temperature range. The subsequent ballot requests reversal of the change.

#### **Call for Patents**

Mr. Thompson presented a call for patents <Patent Call>. IEEE 802.3 makes this call in support of the IEEE patent policy as recorded in the IEEE Bylaws and Operations Manual. The IEEE requests release letters from holders of patents that may apply to

standards in development or approved. The letter of assurance form was shown to the group. The letter states the patent holder's willingness to comply with the IEEE patent policy. Letters are also solicited on patents that have been filed but not yet issued, since it is easier to get release letters while company representatives are active in the working group.

The current IEEE patent policy and a template response letter can be found in the IEEE Standards Companion, or on the web following links from <http://www.standards.ieee.org>.

### **Schedule for the Week**

The Task Forces will meet all day Tuesday and Wednesday and Thursday morning. The closing 802.3 plenary will begin at 1:00 p.m. on Thursday. A call for interest on 100BASE-FX for dual single mode fiber will be held Tuesday evening at 6:00 pm. Four tutorials will be held, two each on Monday and Tuesday nights. The Wednesday night social was also announced. The closing Executive committee meeting will be held at 1:00 pm on Friday.

### **Elections**

Mr. Thompson indicated that if there is only one nominee, the election will occur today otherwise on Thursday. Mr. Robert Grow is the only announced candidate. With no other nominations, a vote was called. (Mr. Carlson taking minutes while Mr. Grow waited outside the room). Mr. Thatcher requested a vote of acclimation, which passed. Mr. Grow thanked the committee for its support and Mr. Thompson for his guidance and training while he served as secretary.

Mr. Law was the only candidate for Vice Chair, and he was formally nominated by Mr. Quackenbush. An enthusiastic vote of acclimation confirmed him for another term in the position.

The committee recognized the individual contribution and years of leadership service of Mr. Thompson as 802.3 as Chair, Vice Chair and other positions beginning in 1983.

### **State of the Standards**

Mr. David Law, Vice Chair of 802.3, presented the IEEE Project 802.3 Working Group Standards Status <Standards Status> that includes the development status of published standards and both approved and proposed 802.3 projects.

### **Operating Rules of 802.3**

Mr. Law reviewed the state of the 802.3 rules <Opening Rules Report>. It has been observed that the period for recirculation ballots is not well defined in our rules nor those of 802 or IEEE-SA. The proposed change is to add a requirement that recirculation letter ballots be of 15 days. There will be a meeting to discuss.

## **Maintenance**

There are 94 maintenance requests in the system, 13 of which are new since November. These new requests will need to be categorized this week. Of the total requests, 66 have been published. The PAR for Maintenance #7 will be submitted to NesCom for consideration at the June Standards Board meeting.

## **Interpretations**

No new interpretation requests have been received. Two requests are currently in ballot. Interpretation 1-03/01 has passed the necessary thresholds for closing on 12 March. Interpretation 1-11/01 closing in April still needs many responses, and the current abstain rate is high. A comment resolution meeting will be held this week.

## **Ad Hoc on Cable Discharge**

Mr. Dan Dove indicated that though the ad hoc had not been meeting recently, progress has continued on testing equipment to better understand the electrical discharge that can occur when connecting a cable to equipment. A meeting will be held this week.

## **10 GIGABIT ETHERNET (802.3ae)**

Mr. Jonathan Thatcher presented the status of the Task Force <Opening 802.3ae Report>. The project is in Sponsor ballot, the Sponsor ballot closed prior to the January interim meeting. All comments could not be closed at that meeting, so an additional meeting was held in February, focused on clause 52 comments. The major technical issue is in the testing of optical devices. The January meeting produced comment resolutions for all clauses except 52, which was the subject of a February interim meeting where comment resolution was completed.

In the recirculation, all of clause 52 was opened for comment along with the changes to other clauses. Clause 52 was opened to the Task Force and Working Group to submit comments, but none outside the ballot group did (many 802.3 members are in the Sponsor Ballot Group). The major item of work for this meeting is to resolve clause 52 comments on the major changes to that clause.

## **DTE POWER VIA THE MDI (802.3af)**

Mr. Steve Carlson reviewed the progress of the Task Force <Opening 802.3af Report>. A Working Group ballot was conducted following the November meeting. All comments couldn't be closed at the January meeting, and work on closing the comments will continue at this meeting. Because the abstention ratio is too high, Mr. Carlson plans to request a waiver from 802.3 rules later this week to allow the project to progress.

## **ETHERNET IN THE FIRST MILE (802.3ah)**

Mr. Howard Frazier reviewed the progress of the Study Group <Opening 802.3ah Report>. He introduced the sub-taskforce chairs and editors for portions of the project. The number of presentations in Raleigh was large with each of the sub-taskforces challenged on time. The objectives adopted by the task force in November received

significant opposition from 802.3 at that meeting. Consequently, considerable time was spent in January on the copper objectives.

This meeting is a very important point in the project schedule. The objective this week is to select core proposals as the basis for editors to write the first draft.

He described the objectives of the task force along with modifications agreed to by 802.3ah. The presentation illustrates the changes with black text being previously approved by 802.3 and the changes in red (additions or substitution text) as approved by 802.3ah in Raleigh.

***TECHNICAL MOTION:***

Approve the objectives presented by the EFM Task Force

M: Mr. H. Frazier on behalf of the Task Force

Discussion followed with questions on each of the changes. There was objection to changing 1000BASE-X to 1000BASE-LX. The PHY interface referenced in the optical BER objective was clarified to be the PLS/MII interface. The BER objective was questioned, both to the rate and its limitation to optical PMDs.

***MOTION:***

Divide the question to separately consider the optical BER objective.

M: Mr. M. Dudek

S: Mr. F. Effenberger

Y: 58, N: 23, A: 21

The BER objective was addressed with a little discussion.

***MOTION:***

Move to postpone consideration of the optical BER objective until 802.3ah business on Thursday.

M: Mr. M. Dudek

S: Mr. R. Brand

Y: 46, N: 42, A: 14

The motion to postpone passed and discussion followed on all the other objectives.

***MOTION:***

Move to postpone consideration of all objectives until 802.3ah business on Thursday.

M: Mr. S. Swanson

S: Mr. P. Kolesar

Y: 23, N: 71, A: 3

The above motion to postpone failed. Additional clarification was given by viewing both pages of the objectives. A motion to call the question passed Y: 89, N: 4.

With the division, the motion could be restated as below, the motion passing:

***TECHNICAL MOTION:***

Approve the objectives, except the optical BER objective, presented by the EFM Task Force.

M: Mr. H. Frazier on behalf of the Task Force

Y: 92, N: 0, A: 15

The EFM plan for the week was discussed and attendee estimates made for each subtask group.

**Other Business**

The call for interest on 100BASE-FX over dual single mode fiber was announced by Mr. Jonsson. Products are being deployed with different optics that are not compatible. The proposed project is to reference an existing PMD specification. The call for interest will be held Tuesday evening. Mr. Thompson noted that the CFI is in conflict with the one tutorial of most interest to Ethernet people.

Room assignments were made for the Task Forces, and Ad Hoc meetings. The opening 802.3 plenary was adjourned at 1757.

## **THURSDAY, 14 MARCH**

### **ADMINISTRATIVE MATTERS**

Mr. Geoff Thompson, Chair 802.3, opened the Working Group closing plenary at 1300 and welcomed those attending the meeting. The attendance lists were circulated. He indicated the meeting would likely run longer than usual based on the business to conduct (something task force chairs had previously announced in their groups).

He announced the election results from Monday. Mr. Thompson was recognized for his years of service to the committee.

Mr. Thompson presented the potential voter list, and the following requested to become voters (indicated by - on <Potential Voters>: Bartur, Meir; Bemmell, Vincent; Buckmeier, Brian; Chen, Raymond; Haddad, Tariq; Haran, Onn; Jacobsen, Krista S; Kleiner, Norbert; Ling, Stanley K; Rezvani, Behrooz; Squire, Matthew B. and Thorne, David. He also displayed the <Voter> list.

### ***MOTION:***

Approve the agenda <Closing Agenda>.

M: Mr. T. Dineen

S: Mr. M. McCormick

The agenda was approved without correction or objection.

Liaison letters were deferred to the Task Force reports.

Mr. Thompson announced the venues for future 802.3 meetings. He answered questions on becoming members (voters) of 802.3, described the attendance books and reminded all that on Thursday they are only passed around in 802.3. He asked if anyone in the room had not heard the patent policy recitation, and no one in the room responded.

### **PARS**

Mr. Thompson indicated the only PAR he would be considering in the closing SEC meeting was 802.16c. No comments were delivered during the week and no discussion was requested.

### **MAINTENANCE**

Mr. Law reported on the Maintenance meeting <Closing Maintenance>. The 802.3aj PAR will be submitted for consideration at the June NeSCOM meeting. The maintenance process was described as well as a summary of this week's maintenance meeting that worked on the processing of new maintenance requests.

### **RULES**

Mr. Law reported on the rules meeting. No changes were made from that presented in the opening plenary.

### **INTERPRETATIONS REPORT**



The <Closing Interpretations Report> discussed the two interpretation ballots. Mr. Law reviewed 1-11/01, closed this week. It is at 100% approval, though the abstention rate is too high (the November 2001 meeting approved suspending the rules for this ballot because of the highly technical nature of the request).

**TECHNICAL MOTION:**

IEEE 802.3 accepts the interpretation 1-03/01 [Next Page] Response draft D1.1 as the response to interpretation request 1-03/01 [Next Page] based on a suspension of the Working Group rule that the abstention ratio must be less than 30%.

M: Mr. D. Law

S: Mr: W. Quackenbush

Y: 108, N: 0, A: 1, Passes

Interpretation 1-11/01 is currently in working group ballot. Current responses have an unacceptably high abstain rate.

**TECHNICAL MOTION:**

IEEE 802.3 authorises the IEEE P802.3 interpretations Ad Hoc to conduct meetings and recirculation ballots as necessary to resolve comments received during the Working Group ballot of the response to Interpretation request 1-11/01 [1000BASE-T] even if the abstain ratio is in excess of 30%.

M: Mr. D. Law

S: Mr. T. Mathey

Y: 95, N: 0, A: 3, Passes

**ADMINISTRATIVE MATTERS**

The Edinburgh interim meeting arrangement was described.

**CABLE DISCHARGE AD HOC**

The problems and progress on the cable discharge issue was discussed <Cable Discharge Closing>. The group will meet next in May at the same location as 802.3af.

**10 GIGABIT ETHERNET (802.3ae)**

Mr. Jonathan Thatcher reported on the work of the Task Force <Closing 802.3ae>. Mr. Brad Booth presented on the status of the ballot and current draft produced during this meeting week <Editor Report>. Most of the clauses only had minor changes resulting from the ballot. The modified content of the draft is limited to 145 of the 550 pages, with most of the changed pages only including editorial changes. Most of the technical comments carried over from the original Sponsor ballot were resolved to the satisfaction of the commenter.

Mr. Thatcher outlined an aggressive plan for achieving ratification at the June Standards Board. He also reported that the task force was polled if any one was planning to submit a TR comment on the upcoming recirculation. The principal concern was that additional lab work might indicate justification for tuning some parameters. The only

other issue with multiple negatives has been before the ballot group since D4.0 comments.

**TECHNICAL MOTION:**

Move that 802.3 approve the following 802.3ae interim meetings:

Meeting 1:

Date: April 8-10

Location: Vancouver, BC

Note: Host PMC-Sierra

Meeting 2

Date: April 29

Location: Silicon Valley, CA

Note: Host TBD

Moved: Jonathan Thatcher

By voice without opposition.

**TECHNICAL MOTION:**

Move that

- 802.3 affirm the resolution to IEEE 802.3ae Draft 4.1 comments and grants approval for IEEE 802.3ae to conduct recirculations, as needed.
- Direct the chair of 802.3 to seek LMSC conditional approval for pre-submission to the June REVCOM meeting per LMSC rules, Procedure 10.

Moved: Jonathan Thatcher

Y: 101, N: 0, A: 0, Passes

Mr. Thatcher indicated (hopefully) that per the current work plan this would be his last closing 802.3 plenary report. (The ballot(s) between this meeting and the June RevCom meeting will determine if it will be.)

**DTE POWER VIA THE MDI (802.3af)**

Mr. Steve Carlson reported on the progress of the DTE Power TF meeting <Closing 802.3af Report>. He recognized the hard work of the task force and thanked the 802.3 members that supplied comments during the ballot, especially those not active in the task force. SC25/WG3 responded to our liaison letter (see presentation).

There were 490 comments, 90 technical in the ballot. The resolutions are supported by 95% to 100% of the task force. He reviewed the comments from the 7 remaining negative voters – there are 11 comments that will carry forward into the next ballot. A major change was implemented in response to comments, and as a result, a draft will be circulated to the task force before conducting a recirculation ballot.

**TECHNICAL MOTION:**

Move on behalf of P802.3af TF to request that 802.3 working group affirm changes to P802.3af D3.0 and authorize the P802.3af task force to create drafts, and to conduct recirculation ballots as necessary to resolve comments received during the ballot process.

M: Mr. S. Carlson

Y: 82, N: 0, A: 1, Passes at 1459

**TECHNICAL MOTION:**

Move to request that the 802.3 working group suspend the requirement that the abstention ratio must be 30% or less for P802.3af D3.0 WG Ballot due to the large number of ballots returned as “Abstain – Lack of Expertise” given that the nature of this project is orthogonal to normal 802.3 work.

M: Mr. S. Carlson

S: Mr. W. Quackenbush

Y: 80, N: 2, A: 1, Passes at 1459

Mr. Thatcher asked about the scope of the above motion, concerned that it could be interpreted to apply to all projects going forward. Mr. Thompson ruled that the above motion applies only to the D 3.1 draft. When polled, no one believed the scope of the motion was to be broader than what the chair ruled.

**ETHERNET IN THE FIRST MILE (802.3ah)**

Mr. Frazier reviewed the progress of the Study Group <Closing 802.3ah>. Additional officers were elected. He indicated that the task force was only partially successful. A motion postponed from the Austin meeting was opened for consideration.

**TECHNICAL MOTIONS:**

Affirm the BER objective of the 802.3ah Task Force.

- Optical EFM PHYs to have a BER better than or equal to  $10^{-12}$  at the PHY service interface.

M: Mr. H. Frazier on behalf of the task force

Y: 63, N: 13, A: 14, passes

Discussion followed with comment that the objective would unnecessarily add cost, but on the converse that the frequency of error was an important criterion to the percentage of errors. The question was called without opposition with the results recorded above.

It was a very active week for the task force, and Mr. Frazier indicated the best summary was to review the objectives and motions as described in the presentation.

**TECHNICAL MOTION:**

Affirm two additional objectives for the 802.3ah EFM Task Force

- 100BASE-X  $\geq$  10 km over SM Fiber

- PHY for PON, >= 20 km, 1000 Mbps, single SM Fiber, >=1:16.

M: Mr. H. Frazier on behalf of the task force

Y: 86, N: 2, A: 8, passed

It was pointed out that this motion was an overlap with the Call For Interest held this week. The question was asked about how this would be handled. The task force chair and 802.3 chair indicated they hoped there would not be duplicate projects, and that that also was the consensus of the CFI meeting.

A motion to divide was defeated Y: 30, N: 43.

Discussion resumed with questions about number of fibers (the objective does not specify) and additional indications of support and opposition both expressed. The motion passed as indicated above.

The Task Force did not close on selection of a copper PMD alternative (encoding) and OAM transport mechanism (preamble or frames or compromise). The respective sub-task forces will continue to work on consensus. The state of the PON sub-task force indicates a much higher level of consensus. Baseline presentations were adopted, with particular controversial slides excluded

***TECHNICAL MOTIONS:***

Affirm P2MP baseline proposal motions from the 802.3ah EFM Task Force.

M: Mr. H. Frazier on behalf of the task force

Y: 75, N: 2, A: 5

A question was asked if the PON effort could go ahead, where the proposals use the preamble field for certain information. The preamble OAM is distinct from the PHY\_ID being conveyed in the preamble. Without opposition, the vote was called and taken as recorded above.

The optics track passed a large number of very detailed motions as outlined in the presentation.

***TECHNICAL MOTION:***

Affirm optical PMD baseline proposal motions from the 802.3ah EFM Task Force, including the need for ~~at least~~ one 100 Mb/s dual fiber and ~~at least~~ either one single wavelength or a pair of dual wavelength 100 Mbps single fiber PMDs.

Bhatt/Bottorff motion to divide at the comma Y: 23, N: 26 failed.

A technical motion to amend to delete the first “at least” was made by Bhatt/Bottorff passed Y: 55, N: 0, A: 16 as shown above by the strike through.

Technical motion to amend by Thaler/Diab to delete the second “at least” and insert text as shown by strike through and underscore passed Y: 62, N: 0, A: 14.

In response to question, the working group was assured that the desire and plan of the optics sub-task force was to study ways to reduce the number of PMDs for PONs. Without objections the vote was called.

**AMENDED TECHNICAL MOTION:**

Affirm optical PMD baseline proposal motions from the 802.3ah EFM Task Force, including the need for one 100 Mb/s dual fiber and either one single wavelength or a pair of dual wavelength 100 Mbps single fiber PMDs.

M: Mr. H. Frazier on behalf of the task force

Y: 92, N: 0, A: 6, passed

The amended motion passed as recorded above. Discussion followed on addition of an annex.

**TECHNICAL MOTION:**

Create an informative annex to address environmental considerations.

M: Mr. H. Frazier on behalf of the task force

Y: 58, N: 5, A: 5, passed

Mr. Frazier then proceeded to report on the work of the copper sub-task force. No baseline proposal selections made in the copper track were upheld at 802.3ah. Three possibilities were described: 1) a selection is made to stay on track with the rest of EFM, 2) the work lags and it is split off into a separate PAR and 3) it is judged the situation is intractable and further work on copper is dropped.

One liaison letter was not available, ITU-T SG15 was judged to be strictly informative on the state of the project. The ITU-T SG13 letter was slightly modified.

**TECHNICAL MOTION:**

Adopt the liaison response letters to:

- ITU-T SG13
- ITU-T SG15.

M: Mr. H. Frazier on behalf of the task force

Approved by voice without opposition

A liaison letter to T1E1.4 was presented and minor edits were made.

**TECHNICAL MOTION:**

Approve the liaison letter to T1E1 as modified.

M: Mr. H. Frazier on behalf of the task force

Approved by voice without opposition

ITU-T 15/4 will be copied on this letter.

Mr. Frazier reminded participants of the May interim meeting to be hosted by Tality. Mr. Grow as LMSC Treasurer reminded planners to discuss any interim meeting fee collections with the LMSC Treasurer (Mr. Bill Quackenbush expected to be confirmed as the new LMSC Treasurer at the closing SEC meeting). He thanked the task force for their work and the working group for their attention.

Ulf Jonsson reported on the Call for Interest held Tuesday night. The sense of the CFI was that a Study Group not be formed if EFM adopts a work item. Because that has happened, no request for a Study Group was made.

Mr. Thompson reflected on the years he has spent as Working Group Chair. He noted that when he initially took the job he was Vice Chair and thought Chair would be more difficult, but it hasn't been because of the contribution of Mr. Law. He also expressed gratitude for the many others that have made 802.3 successful during his tenure including task force chairs and editors; and commented that this work is successful because of the individual contributors that make this work.

With no further business to conduct, the meeting was adjourned without objection at 1735.

### **Future Meetings**

Interim meetings for 802.3 Task Forces will be held in various locations in April and May. Detailed meeting information will be posted on the 802.3 web site.

10 Gigabit Ethernet (802.3ae)	Vancouver, BC	8-10 Apr 2002
	Mountain View, CA	29 Apr 2002
DTE Power via the MDI (802.3af)	Las Vegas, NV	13-15 May 2002
Ethernet in the First Mile (802.3ah)	Edinburgh, Scotland	20-22 May 2002
802.3 Working Group Plenary	Vancouver, BC	8-11 July 2002
	Kauai, HI	11-14 Nov 2002
	DFW, TX	10-13 Mar 2002

Respectfully submitted 7 June 2002

Robert Grow

IEEE 802.3 Secretary

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# IEEE 802.3 CSMA/CD WORKING GROUP Draft AGENDA

See our web site: <http://www.ieee802.org/3>

March 11, 2002, St. Louis, Missouri

Start at 1:00 PM

## MONDAY, 11 March

- 1300- Administrative Matters.....Geoff Thompson
- Welcome, Introductions and General Announcements
  - Introduce Secretary for the meeting: Bob Grow
  - Attendance, address list/e-mail list maintenance
  - Review of Voting Membership
    - Additions to voting membership list
  - Agenda, review and revise as needed
  - Approval of Minutes: 11/01
  - Announce WG activities since Austin
  - Standards Board Report
  - Executive Committee Report & Action Items
  - PARs for approval this week (Comments by 5PM Tuesday)
  - External Liaison Reports: FO2.2, TR-42, TR-41.3.4, SC6/WG3, SC25/WG3
  
  - Call for Patents
  - Schedule for the Week
  - Any Other business
  - Working Group Elections
  
  - State of the Standard and the Operating Rules of 802.3.....David Law
  - Maintenance/Reaffirmations.....David Law
    - Approval/Publication of P802.3ag Maintenance #6
    - Update/Status of maintenance requests
  - Interpretation requests.....David Law
    - Interpretation Ballots
    - Update/Status or interpretation requests

## 1500-1520 BREAK

### Task Force and Study Group Reports

- P802.3ae, Task Force (10 Gig Ethernet).....Jonathan Thatcher
- Update/Status of the project
  - Plans for this week
- P802.3af, Task Force (DTE Power via MDI).....Steve Carlson
- Update/Status of the project
  - Plans for this week
- P802.3ah Task Force (Ethernet in the First Mile).....Howard Frazier
- Update/Status of the project
  - Plans for this week
- Announcement of Call for Interest (100BASE-X dual single mode fiber).....Ulf Jönsson
- Room Assignments and Task Force Schedules.....Geoff Thompson

Adams, Martin	Carlson, Steve	Elhøj, Martin	Hinrichs, Henry
Agazzi, Oscar	Chang, Justin	Ewen , John F.	Hinzel, David
Alderrou, Don	Chen, Xiaopeng	Ferrant, Jean-Loup	Hirth, Ryan
Alexander, Thomas	Chen, Zinan	Fiedler, Jens	Hoge, Jay
Amer, Khaled	Chin, Hon Wah	Figueira, Norival	Hyer, David W.
Amundsen, Keith	Chow, Kuen	Finch, Robert G	Ishida, Osamu
Anderson, Tony	Cobb, Terry	Firoozmand, Farzin	Jackson, Steve
Andersson, Ralph	Coleman, Doug	Flatman, Alan	Jacobson, Michael R.
Andresen, Jack	Colla, Régis	Fraser, Roger	Jaffa, Brent
Ataee, Mehran	Congdon, Herb	Frazier, Howard	Jang, Eric
Auld, Phil	Cornejo, Edward	Freitag, Ladd	Jang, Woo-Hyuk
Bachand, Gerard E	Cross, Richard	Frojd, Krister	Jetzt, John
Baldman, Andy	Cruikshank, Brian	Fujimoto, Yukihiro	Jewell, Jack L
Barrass, Hugh	Cullin, Chris	Furlong, Darrell	Jiang, Wenbin
Barrett, Bob	Cunningham, David	Gaither, Justin	Joh, Clarence
Baumer, Howard	D'Ambrosia, John	Gentry, Denton	Kabal, David
Beaudoin, Denis	Dahlgren, Robert	George, John	Kaku, Shinkyō
Beck, Michaël	Daines, Kevin	Ghiasi, Ali	Kalkunte, Mohan
Bennett, Mike	Dallesasse, John	Gilliland, Pat	Kamat, Puru
Berglund, Sidney	Dance, Rupert S	Goldis, Moty	Karam, Roger
Bestel, John L.	Darshan, Yair	Goldman, Matthew	Kaufman, Dave
Bhatt, Vipul	Dartnell, Peter	Goodman, Timothy D	Kelly, N. Patrick
Bisberg, Jeff E.	Dawe, Piers	Graham, Rich	Kenny, John J.
Bohbot, Michel	deBie, Michael	Grann, Eric B.	Kesling, Dawson
Booth, Brad	Debiec, Tom	Gray, C. Thomas	Kohl, David E
Bottorff, Paul	Dedrick, Joel	Greenlaw, Jonathan E.	Kolesar, Paul
Bourque, Gary	Di Minico, Chris	Grow, Robert M.	Kramer, Glen
Bovill, Kirk	Diab, Wael	Gummalla, Ajay	Kuyt, Gerard
Brand, Richard	Dineen, Thomas	Hackert, Michael	Lackner, Hans
Brierley-Green, Andrew	Dobson, Hamish	Haddock, Stephen	Lamers, Lawrence J.
Brikovskis, Rhett	Dolfi, David W.	Hakimi, Sharam	Lane, William
Brooks, Rick	Dove, Dan	Hansen, Johannes	Langston, Daun
Brown, Benjamin	Drever, Brian	Hanson, Del	Latchman, Ryan
Brown, Kevin	Dudek, Mike	Hassoun, Marwan	Law, David
Buck, Steve F.	Dugan, Richard	Hatley, Tom	Le, Quang
Burton, Scott	Dwelle, David	Healey, Adam	Lee, Eugene
Busse, Robert	Eddings, Clay	Heldman, Ronen	Lee, Wesley
Bynum, Roy	Effenberger, Frank J	Hendel, Itzik	Lehr, Amir
Caldwell, Donald	Egan, John	Herrity , Ken	Leo, Lisa
Cam, Richard	Eisler, George	Hesson, James H	Leonowich, Robert H.



# IEEE 802.3 VOTERS

(302)

as of 3/9/2002

Levy, Avinoam	Nootbaar, Michael	Sankey, Mark	Vergnaud, Gérard
Lindsay, Tom	Noseworthy, Bob	Sasaki, Akira	Vogel, David
Liu, Fengkun	Obara, Satoshi	Savara, Raj	Wagner, Martin
Lucas, Fred A.	Oh, Stephen	Schulz, Klaus	Warland, Tim
Lum, Meilissa R.	Ohlén, Peter	Schwartz, Peter	Warren, Jeff
Lynch, Jeffrey	Ooka, Toshio	Sefidvash, Khorvash	Washburn, Ted
Lynskey, Eric R.	Orlik, Philip	Selee, Steve	Weniger, Fred
Lysdal, Henning	Oughton, George	Seto, Koichiro	Whitlow, Tony
MacLeod, Brian	Pace, Robert R.	Shain, Vadim	Wiedemann, Bill
Maislos, Ariel	Pannell, Don	Shergill, Robbie	Wolcott, John
Martin, David W.	Parsons, Elwood T	Song, Jian	Won, King
Mashiko, Koichiro	Patel, Dipak M.	Stanley, Patrick H.	Won, Shin-Hee
Mathey, Thomas	Pavlovsky, Alex	Stapleton, Nick	Wong, David
Matni, Ziad Albert	Payne, John	Stetter, Claus	Wong, Edward
Matsuo, Hideyuki	Pepeljugoski, Petar	Stewart, Donald S	Wong, Leo
Mayer, Bob	Pesavento, Gerry	Stoddart, Dean M	Wong, Percy
McCammon, Kent	Pitzer, Armin	Stoltz, Mario	Wurster, Stefan M.
McCarron, Philip L	Plunkett, Timothy R.	Suzuki, Hiroshi	Yoder, Doug
McCormack, Michael S	Porter, Jeff	Svensson, Daniel	Yorks, Jason
Metzger, Jo Beth	Quackenbush, William	Swanson, Steve	Young, Leonard
Michalowski, Richard	Quilici, Jim	Szostak, Tad	Zannini, Hank
Mizrahi, Jacob (Kobi)	Quinn, Patrick W.	Taborek, Rich	Zona, Bob
Mohamadi, Fred	Quirk, John	Tailor, Bharat	
Mohl, Dirk S.	Rabinovich, Rick	Tajima, Akio	
Montstream, Cindy	Rahn, Jurgen	Tate, Mike	
Moore, Paul B.	Raman, Naresh	Thaler, Pat	
Moore, Robert	Rasimas, Jennifer G.	Thatcher, R. Jonathan	
Moriwaki, Shohei	Rausch, Dan	Thirion, Walter	
Muir, Robert	Rautenberg, Peter	Thompson, Geoffrey	
Muller, Shimon	Reintjes, Maurice	Tolley, Bruce	
Murphy, Denis	Rennie, Lawrence	Torgerson, Paul	
Murphy, Thomas	Rizk, Ramez	Townsend, Rick	
Murray, Brian	Rogers, Shawn	Turner, Edward	
Nadeau, Gerard	Romascanu, Dan	Tusiray, Bulent	
Naganuma, Ken	Römer, Tume	Twu, Bor-long	
Naidu, Hari	Ross, Floyd	Vaden, Sterling A.	
Nakamura, Karl	Rubin, Larry	van Doorn, Schelto	
Nazari, Nersi	Ryu, Hyunsurk	Van Laanen, Peter	
Nelson, Kristian	Sala, Dolors	Venkatavaraton, Vinod	
Nikolich, Paul	Sanders, Anthony	Vepa, Ramakrishna	

If you wish to become a voter you must say so during THAT agenda item in the 802.3 Plenary Meeting.  
This will be done very early in the meeting Monday PM and Thursday PM.

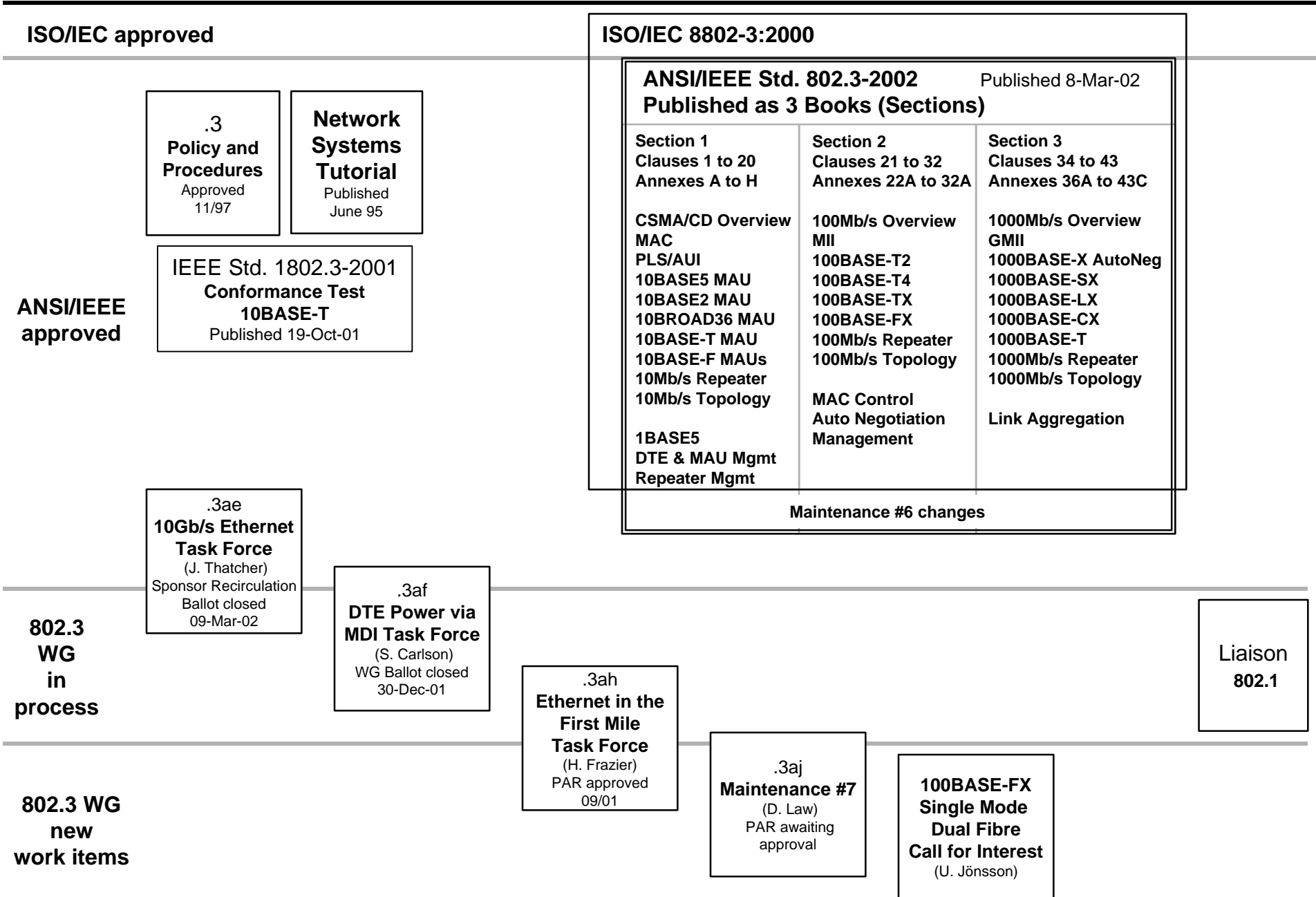
*Anderson, Stephen	-Haddad, Tariq	Nagashima, Takashi
*Artman, Doug	Haile-Mariam, Atikem	Nguyen, Trung
*Atias, Ilan	Hansen, Mogens	Nishida, Glenn
-Bartur, Meir	-Haran, Onn	*Oksman, Vladimir
Belkeir, Ed	Hart, Greg	Olsson, Fredrik
-Bemmel, Vincent	Hickey, Tony	*Papandrea, Gabriel D
Bennett, John	Hochberg, Jim	*Peng, Y. Lisa
*Berman, David J.	Holloway, Tim	Purzynski, Cezary
Birch, Michael	Hudgins, Clay	*Remein, Duane
Blakey, Samantha	Hughes, Bob	Renner, Martin
Blauvelt, Hank	Huynh, Thong	Reysen, Bill
Bluvstein, Ilan	Ikeda, Hiroki	-Rezvani, Behrooz
Bouvy, Ralph	Inn, Bruce	Rich, Bill
Boyd, Edward	Ivry, Raanan	*Rooke, Sterling
Bradshaw, Scott	-Jacobsen, Krista S	Ross, Tam
Buchheit, Steve	Johnson, Richard V	Rudberg, Björn
-Buckmeier, Brian	Jones, Chad	*Rundquist, Ron
Campello, Jorge	*Jonsson, Ulf	*Sambasivan, Sam
Carlisle, Robert S	Kaaja, Harald	Schneider, Kevin W
Carrigan, James	Kamisugi, Harold	Schramm, Thomas
Charuk, Bill	Kanama, Rami	*Shah, Sunil
-Chen, Raymond	Karimi, Hamid	Shen, Steven
Closs, Dave	Kincaid, John	Sisk, James (Randy)
Collins, Henry B	-Kleiner, Norbert	*Soto, Walt
*Cook, Charles I	Kloth, Axel	-Squire, Matthew B.
Cook, Ron	Koyama, Tetsu	Starr, Tom
Cooke, Janeen A	Ku, Solomon	*Stitcia, Jim
Daaboul, Fouad	Kumar, Y. N.	*Stuart, Richard
Dahan, Motti	Kuo, JC	Ta, John
Day, Doug	*Kutzavitch, Walter	Thomas, Stephen
Dhamejani, Suveer	*Lavasani, Javad	-Thorne, David
Easley, J. Craig	*LeCheminant, Greg	Wachsman, John
Eaton, George	Levy, Steve	Wake, Jeff
*Eckert, Edward J.	*Limb, John O.	Wei, Dong
Edwards, Gareth	Lin, Louis	Welch, Jim
Egerton, Clive	-Ling, Stanley K	Yoshihara, Osamu
Evans, Jennifer	Ly, Anh	Yu, Jinguo (Jay)
Finch, Jim	Madigan, Mark	Zagalsky, Nelson
Finch, Stephen	*Marris, Arthur	
Forsythe, Larry	Matsuoka, Takashi	
Gaglianello, Robert D	*McSweeney, Brian	
*Golob, Larry	*Mickelsson, Hans	
Groenenberg, Robert W.	Moody, Kristann L	
*Gustafsson, Jonas	Moore, Frank H	
*Gyurek, Russ	*Moseley, Simon	
*Haas, Steven	Murata, Hiroshi	

If your name is on this list AND you wish to remain an 802.3 Voter you need to make sure that you sign the book every day that you are in 802.3.

"Voter in Peril" means that the persons listed will not be voters after this meeting unless they meet the "full attendance" requirement for this meeting. That is, they sign-in at least 3 of the 4 days.

Agazzi, Oscar	Lee, Wesley
Ataee, Mehran	Lehr, Amir
Bestel, John L.	Leonowich, Robert H.
Bourque, Gary	Lynch, Jeffrey
Brierley-Green, Andrew	Lysdal, Henning
Buck, Steve F.	Mayer, Bob
Chen, Zinan	Montstream, Cindy
Chin, Hon Wah	Moore, Paul B.
Chow, Kuen	Moore, Robert
Colla, Régis	Nootbaar, Michael
Cornejo, Edward	Oh, Stephen
Dahlgren, Robert	Pannell, Don
Dance, Rupert S	Patel, Dipak M.
Dartnell, Peter	Plunkett, Timothy R.
Debiec, Tom	Porter, Jeff
Dedrick, Joel	Rausch, Dan
Dolfi, David W.	Rautenberg, Peter
Dugan, Richard	Rizk, Ramez
Eddings, Clay	Römer, Tume
Firoozmand, Farzin	Schulz, Klaus
Gilliland, Pat	Stapleton, Nick
Hakimi, Sharam	Stetter, Claus
Hansen, Johannes	Svensson, Daniel
Herrity, Ken	Taylor, Bharat
Hinzel, David	Tajima, Akio
Jacobson, Michael R.	Vaden, Sterling A.
Jang, Eric	Washburn, Ted
Jang, Woo-Hyuk	Whitlow, Tony
Kalkunte, Mohan	Wong, Leo
Kelly, N. Patrick	Yorks, Jason
Kuyt, Gerard	Zannini, Hank
Lane, William	
Latchman, Ryan	

# IEEE Project 802.3 Working Group Standards Status March 11th, 2002



# LETTER OF ASSURANCE FOR ESSENTIAL PATENTS

Please return or FAX to: Secretary, IEEE-SA Standards Board Patent Committee  
Institute of Electrical and Electronics Engineers, Inc.  
445 Hoes Lane  
Piscataway, NJ 08855 USA  
FAX (+1 732-562-1571)

*No license is implied by submission of this Letter of Assurance*

## **1. PATENT HOLDER/ORGANIZATION:**

Legal Name of Organization: \_\_\_\_\_

## **2. PATENT HOLDER'S CONTACT FOR LICENSE APPLICATION:**

Name & Department: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

## **3. IEEE STANDARD or PROPOSED IEEE STANDARD:**

Number: \_\_\_\_\_

Title: \_\_\_\_\_

## **4. PATENT HOLDER'S POSITION REGARDING LICENSING ESSENTIAL PATENT RIGHTS**

If the Patent Holder owns or controls granted patent(s) and/or pending applications that it believes may be infringed by compliance with the Proposed IEEE Standard, please specify the patent number, published application, and/or relevant claims. (A patent search is not required.)

Patent Number(s) (if known): \_\_\_\_\_

Relevant Claims (optional): \_\_\_\_\_

The Patent Holder states that its position with respect to licensing such patent(s) is as follows (**check one box only**):

1. The Patent Holder is prepared to grant a free license to an unrestricted number of applicants on a worldwide, non-discriminatory basis to comply with the [Proposed] IEEE Standard.
2. The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to comply with the [Proposed] IEEE Standard.
3. The Patent Holder is unwilling to grant licenses according to the provisions of either 1 or 2 above.

*Note: The Patent Holder is not deemed to discriminate for denying a license based on pending or ongoing patent litigation with an applicant. It is not deemed unreasonable for the Patent Holder to include a reciprocity requirement within the license.*

4. I am not aware of any patent(s) and/or patent claim(s) that my company may hold that would be relevant to the subject matter of the [Proposed] Standard

## **5. SIGNATURE**

Print name of authorized person: \_\_\_\_\_

Title of authorized person: \_\_\_\_\_

Signature of authorized person: \_\_\_\_\_ Date: \_\_\_\_\_

*Note: This assurance applies from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.*

IEEE 802.3  
Rules Report

March 11th, 2002

St Louis, MO

David Law

# Rules change procedure

- 1 Proposed Rules Changes received
- Change procedure in subclause 2.9 of rules
  - Meeting to discuss the change this week
  - Change pre-circulated prior this next plenary
  - Vote held at next closing 802.3 plenary, either:-
    - **Reject**
    - **Approve**
    - **Send out to Working Group Letter Ballot**

# Proposed Rules Revision 1-03/02

## Proposed revision

In the WG Balloting subclause add a new requirement to the 802.3 additional requirements that reads:

### **2.8.4 Draft Standard Re-circulation Ballots Requirements**

WG Recirculation letter ballots shall be not less than 15 days in duration (including e-mail time).



# Proposed Rules Revision 1-03/02

## **Rational for Proposed Rules Revision**

The 802.3 Rules reference the 802 Rules for the majority of Working Group Letter ballot requirements including the ballot cycle duration requirements. In the case of recirculation ballot however, the 802 rules simply state that 'There is a recirculation requirement. For guidance on the recirculation process see Section 5.4.3.2 Resolution of comments, objections, and negative votes in the IEEE Standards Operating manual'. On examination of this section of the IEEE Standards Operating manual it will be seen there is no specific duration requirement for recirculation ballots.

Until this issue is addressed at the 802 level, the 802.3 rules should be modified to state how we have been operating.

# IEEE 802.3 Operating Rules

802.3 Operating Rules URL:

<http://www.ieee802.org/3/rules/index.html>

Web site Provides

802.3 Operating Rules in HTML and pdf  
Revision history

IEEE 802.3  
Interpretations Report

March 11th, 2002

St Louis, MO

David Law

# Interpretations Status

- No new Interpretations received
- 2 Interpretations in process
  - Response to 1-03/01 [Next Page] currently in Working Group Recirculation Ballot
    - Ballot closes 12th March 2002
  - Response to 1-11/01 [1000BASE-T] currently in Working Group Ballot
    - Ballot closes 1st April 2002

# IEEE P802.3 Interpretation 1-03/01 [Next Page] Working Recirculation Group ballot

Ballot summary at 08:00 CST (Closes 03/12/02)

317	Voters
168	Ballots returned
<b>53.0%</b>	<b>Return rate (&gt; 50% required)</b>
103	Approval
2	Approve with comments
0	Disapprove
63	Abstain
<b>100%</b>	<b>Approval rate (&gt; 75% required)</b>
<b>37.5%</b>	<b>Abstain rate (&lt; 30% required)</b>
<b>1</b>	<b>Comment</b>

# IEEE P802.3 Interpretation 1-11/01 [1000BASE-T] Working Group ballot

Ballot summary at 08:00 CST (Closes 04/01/02)

309	Voters
48	Ballots returned
<b>15.5%</b>	<b>Return rate (&gt; 50% required)</b>
25	Approval
2	Approve with comments
1	Disapprove
20	Abstain
<b>96.4%</b>	<b>Approval rate (&gt; 75% required)</b>
<b>41.7%</b>	<b>Abstain rate (&lt; 30% required)</b>
<b>7</b>	<b>Comments</b>

# IEEE P802.3 Interpretation 1-11/01

## Working Group ballot

If you have not already voted

**PLEASE VOTE**

Remember

802.3 Voters are obligated to participate in the ballot in order to retain their voting membership

# Plans for the week

- Meet this week
  - Comment resolution on 1-03/01 and 1-11/01 ballots



# IEEE 802.3 Rules Report

March 14th, 2002

St Louis, MO

David Law

# Proposed Rules Revision 1-03/02

## Proposed revision

In the WG Balloting subclause add a new requirement to the 802.3 additional requirements that reads:

### **2.8.4 Draft Standard Re-circulation Ballots Requirements**

WG Recirculation letter ballots shall be not less than 15 days in duration (including e-mail time).

# Proposed Rules Revision 1-03/02

## **Rational for Proposed Rules Revision**

The 802.3 Rules reference the 802 Rules for the majority of Working Group Letter ballot requirements including the ballot cycle duration requirements. In the case of recirculation ballot however, the 802 rules simply state that 'There is a recirculation requirement. For guidance on the recirculation process see Section 5.4.3.2 Resolution of comments, objections, and negative votes in the IEEE Standards Operating manual'. On examination of this section of the IEEE Standards Operating manual it will be seen there is no specific duration requirement for recirculation ballots.

Until this issue is addressed at the 802 level, the 802.3 rules should be modified to state how we have been operating.

# Rules change procedure

- Meeting was held to discuss the change
  - No comments
- Change procedure in subclause 2.9 of rules
  - Change pre-circulated prior this next plenary
  - Vote held at next closing 802.3 plenary, either:-
    - **Reject**
    - **Approve**
    - **Send out to Working Group Letter Ballot**

# IEEE 802.3 Operating Rules

802.3 Operating Rules URL:

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Web site Provides

802.3 Operating Rules in HTML and pdf  
Revision history

IEEE 802.3  
Interpretations Report

March 14th, 2002

St Louis, MO

David Law

# Interpretations Status

- 2 Interpretations requests in process
  - Response to 1-03/01 [Next Page]
    - Recirculation ballot closed 12th March 2002
    - Met Wednesday to review comments
  - Response to 1-11/01 [1000BASE-T]
    - In Working Group Ballot
    - Ballot closes 1st April 2002

# IEEE P802.3 Interpretation 1-03/01 [Next Page] Working Recirculation Group ballot

317	Voters
169	Ballots returned
<b>53.3%</b>	<b>Return rate (&gt; 50% required)</b>
104	Approval
1	Approve with comments
0	Disapprove
63	Abstain
<b>100.0%</b>	<b>Approval rate (&gt; 75% required)</b>
<b>37.3%</b>	<b>Abstain rate (&lt; 30% required)</b>

## Comments:

1	Editorial
---	-----------



# IEEE 802.3 Motion

IEEE 802.3 accepts the Interpretation 1-03/01 [Next Page] Response draft D1.1 as the response to Interpretation request 1-03/01 [Next Page] based on a suspension of the Working Group rule that the abstention ratio must be less than 30%.

M: David Law

S: Bill Quackenbush

Tech 75%/Proc ~~50%~~

PASSED/FAILED

Date: 14th Mar 2001

Y: 108

N: 0

A: 1

Time: 13:42

# Response to 1-11/01 [1000BASE-T]

- In Working Group Ballot
  - Ballot closes 1st April 2002
- Reviewed comments received so far
  - Re-circulation seems likely
- Plans for completion
  - Meet at Edinburgh Interim
    - Review and resolve Ballot comments
  - Complete Working Group recirculation ballot prior to July Plenary

# IEEE P802.3 Interpretation 1-11/01 [1000BAE-T] Working Group ballot

Ballot summary at 08:00 CST (Closes 04/01/02)

309	Voters
51	Ballots returned
<b>16.5%</b>	<b>Return rate (&gt; 50% required)</b>
28	Approval
2	Approve with comments
1	Disapprove
20	Abstain
<b>96.8%</b>	<b>Approval rate (&gt; 75% required)</b>
<b>39.2%</b>	<b>Abstain rate (&lt; 30% required)</b>
<b>7</b>	<b>Comments</b>

# IEEE P802.3 Interpretation 1-11/01

## Working Group ballot

If you have not already voted

**PLEASE VOTE**

Remember

802.3 Voters are obligated to participate in the ballot in order to retain their voting membership

# Response to 1-11/01 [1000BASE-T]

- Plans for completion
  - Meet at Edinburgh Interim
    - Review and resolve Ballot comments
  - Complete Working Group recirculation ballot prior to July Plenary

# IEEE 802.3 Motion

IEEE 802.3 authorises the IEEE P802.3 Interpretations Ad Hoc to conduct meetings and recirculation ballots as necessary to resolve comments received during the Working Group ballot of the response to Interpretation request 1-11/01 [1000BASE-T] even if the abstain ratio is in excess of 30%.

M: David Law

S: Tom Mathey

Tech 75%/~~Proc 50%~~

~~PASSED/FAILED~~

Date: 14th Mar 2001

Y: 95

N: 0

A: 2

Time: 13:48

# **TIA-TR42 Liaison**

**Engineering Committee on User Premises  
Telecommunications Cabling Infrastructure**

**March 2002,  
St. Louis, MO**

**Chris Di Minico  
CDT Corporation**

# TR-42 Scope:

---

## TR-42 - User Premises Telecommunications Infrastructure

- Commercial, industrial and residential cabling standards including telecommunications infrastructure administration, pathways and spaces, and copper and optical fiber systems requirements.

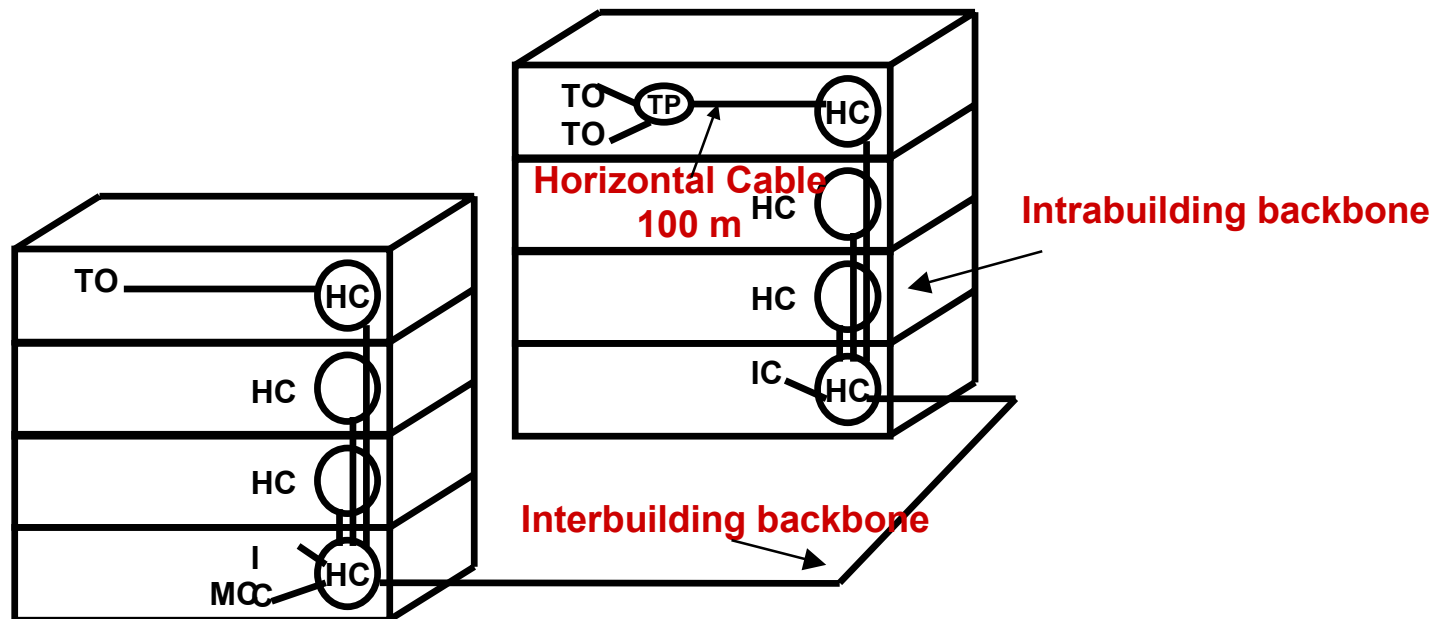


# TR-42 - Commercial Building Telecommunications Standards

## TR-42.1 - TIA/EIA-568-A -----> TIA/EIA-568-B - Cabling Standard

Performance and technical criteria for a telecommunication cabling system

- Topology, and Components



## TR-42.3 - Commercial Building Telecommunications Pathways and Spaces

•TIA/EIA -569 - Pathways and Spaces

# TR-42- Work Groups

---

- TR-42.2 - **Residential** Telecommunications Infrastructure
- TR-42.9 - **Industrial** Telecommunications Infrastructure
- TR-42.4 - Customer-owned Outside Plant Telecommunications Infrastructure
- TR-42.5 - Telecommunications Infrastructure Terms and Symbols
- TR-42.6 - Telecommunications Infrastructure and Equipment Administration
  - Labeling and record keeping

# TR-42- Copper and Fiber Cabling Work Groups

---

- TR-42.7 - Telecommunications Copper Cabling Systems
  - TR-42.7.1 - Copper Connecting Hardware
  - TR-42.7.2 - Copper Cable
    - working group initiated activity to evaluate ESD for IEEE
    - Addendum: 802.3af DTE Power - additional parameters
- TR-42.8 - Telecommunications Optical Fiber Cabling Systems
  - PN-3894-AD1, Additional Transmission Performance Specifications for 850-nm Laser Optimized 50/125  $\mu\text{m}$  Optical Fiber Cables
  - Status: ballot approved - publication based on release of detailed fiber specification (Addition to -ANSI/EIA/TIA-492)

## TR42.1 Study Group: Telecommunications Cabling Infrastructure for Network Distribution Nodes

---

Scope: Develop cabling topology, recognized media types, cabling requirements, and requirements for pathways & spaces for data centers

- Cabling Design
- Network Design
- Facility Design
  
- First Draft: June 2002

# Data Center: Multidisciplinary Design Effort

---

**The standard will address the need to:**

- address IT data center infrastructure early in the building development
- provide information that cuts across the multidisciplinary design
- promote cooperation in the construction and design phase
- contribute to the architectural considerations

# Design Elements:

---

## Cabling Design:

- copper and fiber cabling performance
- connectors, cables, distribution hardware (patch panels, racks)
- cabling distances
- space management

## Facility Design:

- data center sizing
- power distribution methodologies
- pathways and spaces
- HVAC, security, operations, and administration.
- flexibility, scalability, reliability and space management

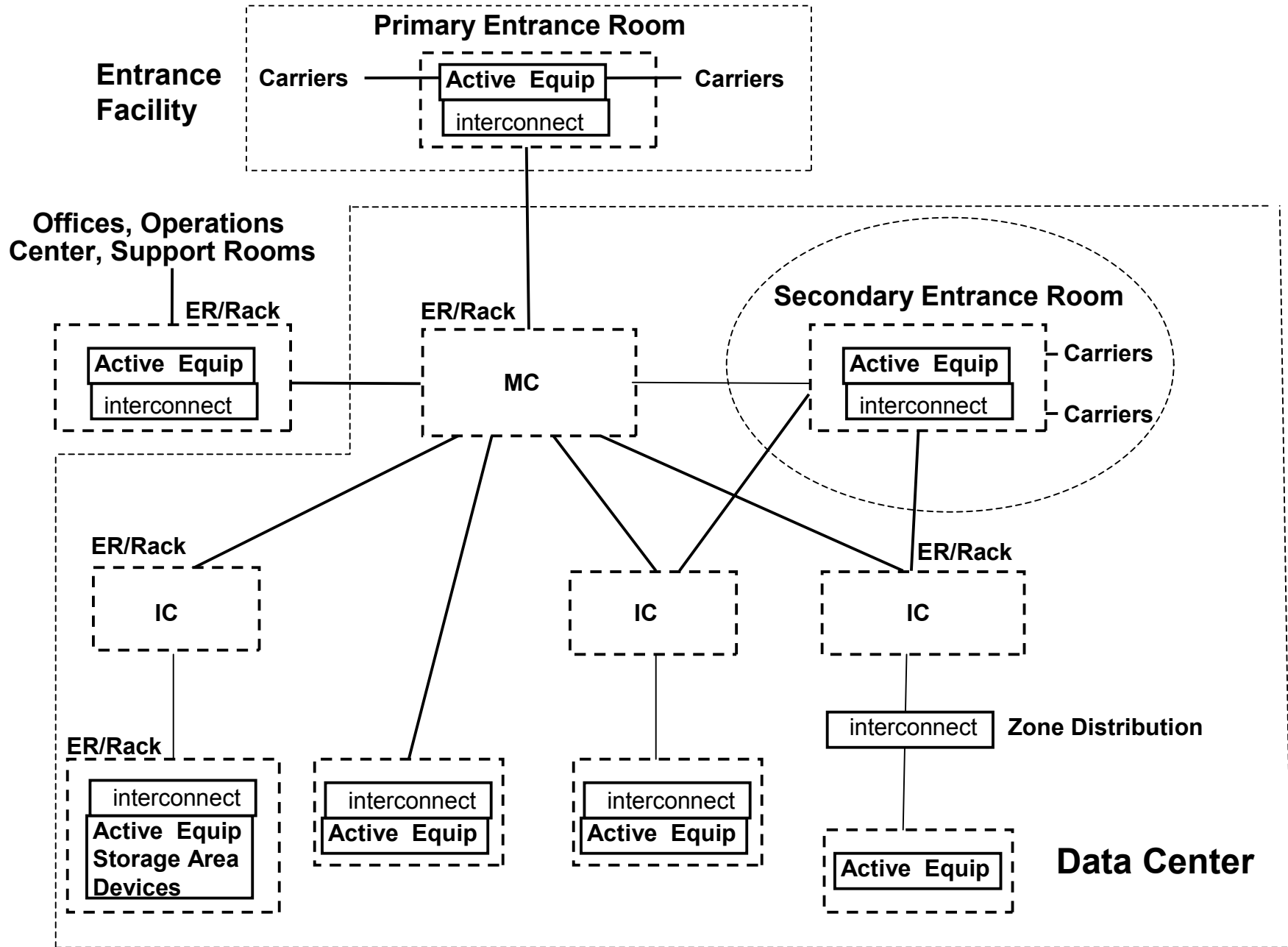
# Design Elements:

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## Network Design:

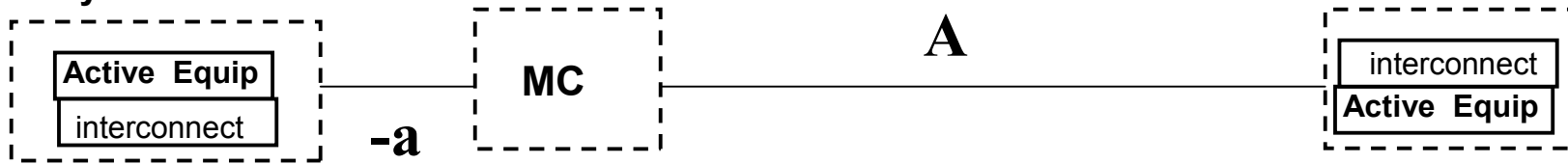
- support legacy systems
- enable rapid deployment of new technologies such as the emerging 10 Gb/s applications.

# Data Center Topology - Current

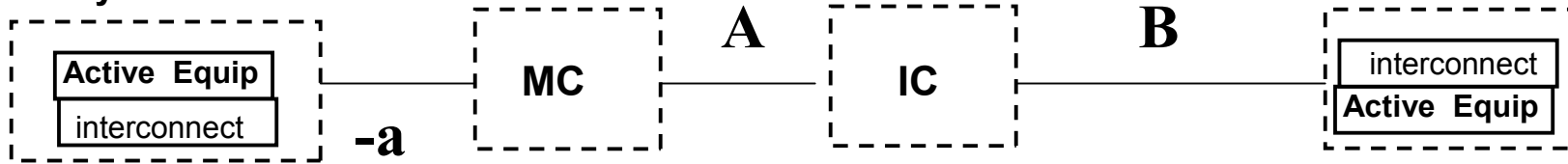




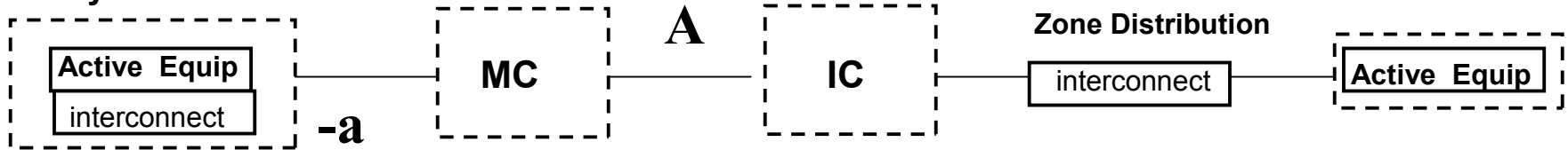
**Primary Entrance Room**



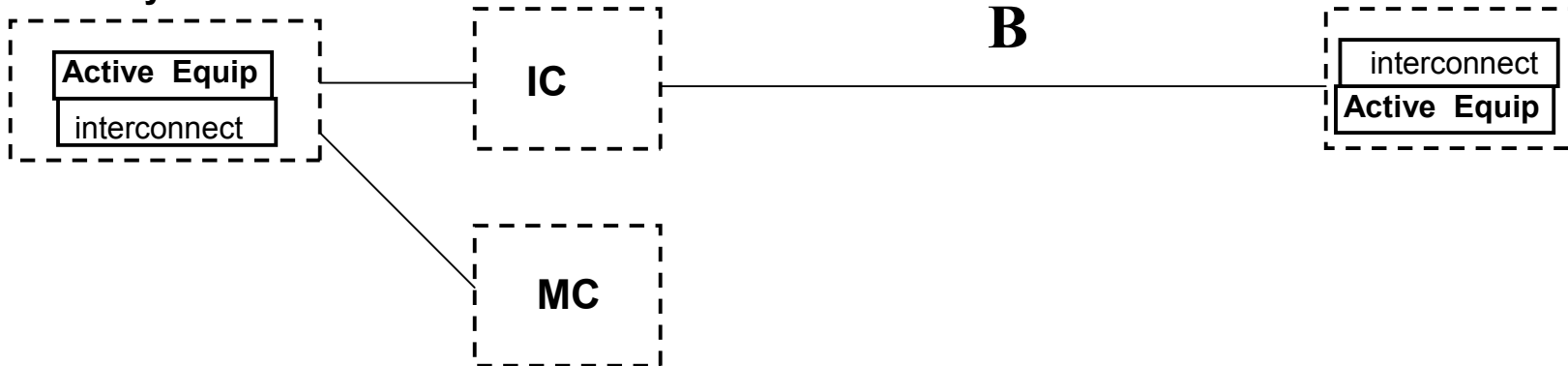
**Primary Entrance Room**



**Primary Entrance Room**



**Secondary Entrance Room**



# International Cabling Standards

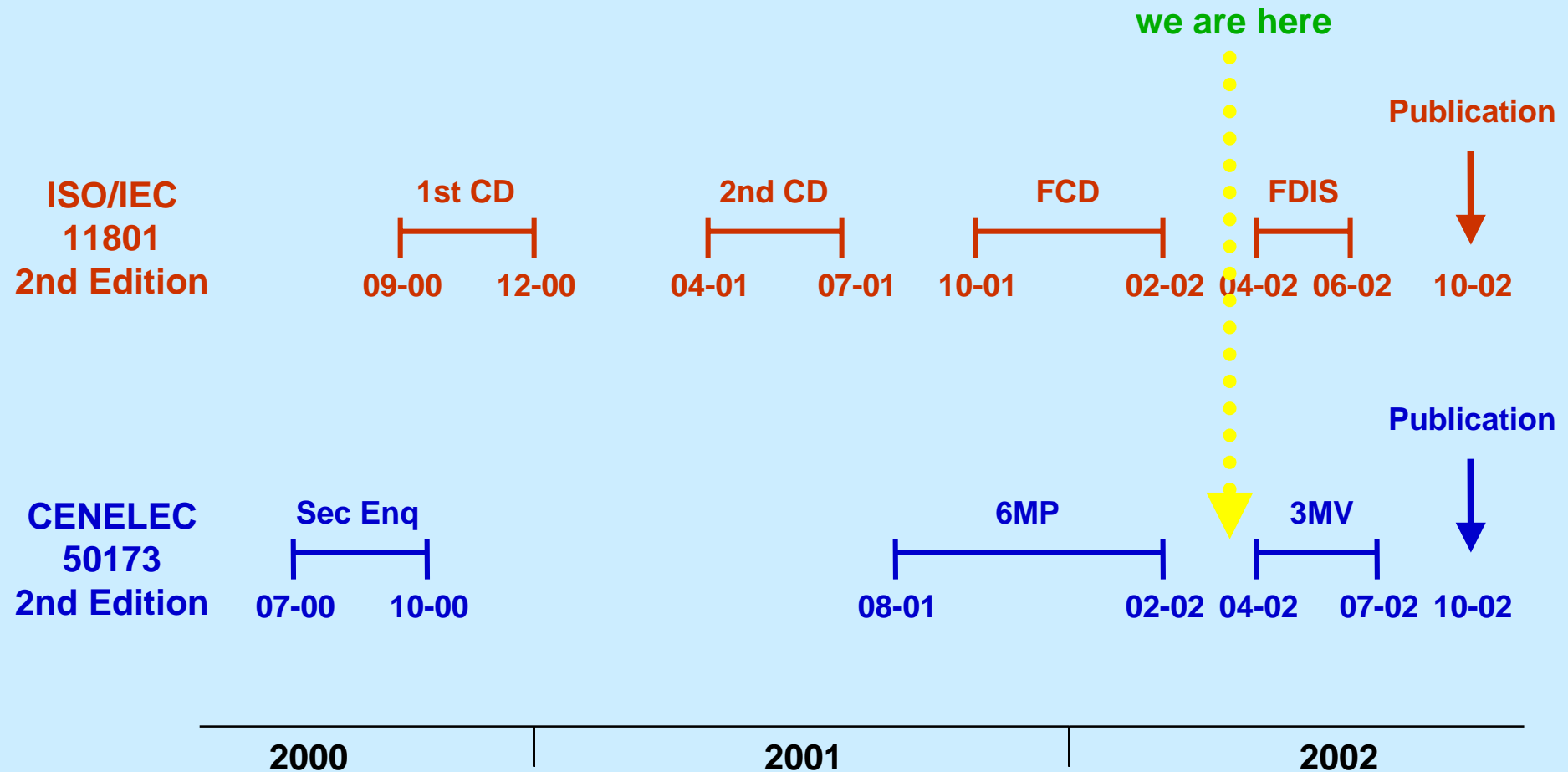
Status Report for IEEE 802.3  
March 2002 Plenary: St Louis, MO

Alan Flatman

# ISO/IEC 11801 2nd Edition

- **FCD approved & FDIS being prepared**
- **no more technical changes permitted**
- **close harmony with TIA & CENELEC**
- **120 ohm cable option finally removed**
- **two Class E applications now listed:**
  - » **TIA/EIA-854 Gigabit PHY over Cat 6**
  - » **ATMF 1.2 Gigabit ATM over Cat 6**
- **802.3af liaison response on mid-span**

# Development of 2<sup>nd</sup> Edition Cabling Standards



# **Cabling Projects in ISO/IEC & CENELEC**

- **Pathways & Spaces**
- **SOHO Cabling**
- **Industrial Cabling**

# Meeting Plan

**ISO/IEC SC25 WG3**

**23 - 26 Sep 2002**

**10 - 14 Feb 2003**

**CENELEC TC215 WG1**

**15 - 17 Apr 2002**

**Questions?**

# TIA FO-2.2 Liaison Report

to IEEE 802.3

March 11, 2002

St. Louis

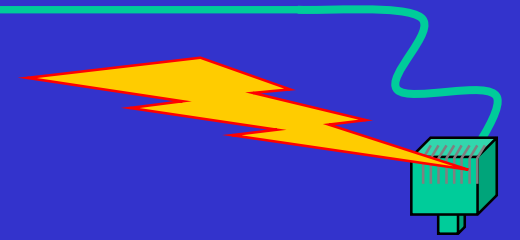
IEEE 802.3 Plenary - Steve Swanson  
Corning



# Highlights

- Met in January 2002
- Test methodology complete
- Detail Specification in final stage of approval
  - All comments resolved in January including a change to the temperature cycling spec
    - from -40 to 80 °C to -60 to 80°C
  - the new ballot yielded a comment to change it back
  - resolution of comment ongoing
- IEC equivalent documentation progressing

# CDE Adhoc Meeting



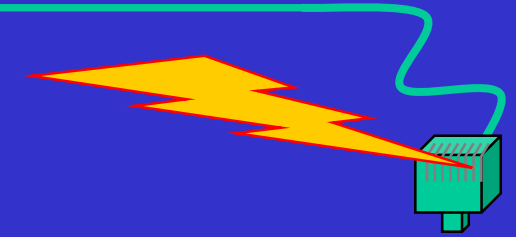
IEEE 802.3  
March 2002 Plenary  
St. Louis, MO



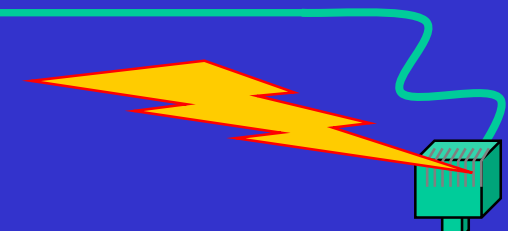
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- **Agenda:**

- **Appoint secretary to record minutes**
- **Review and approve minutes of last meeting**
- **Open floor for presentations**
- **Discussion**
- **Establish action items**
- **Adjourn**



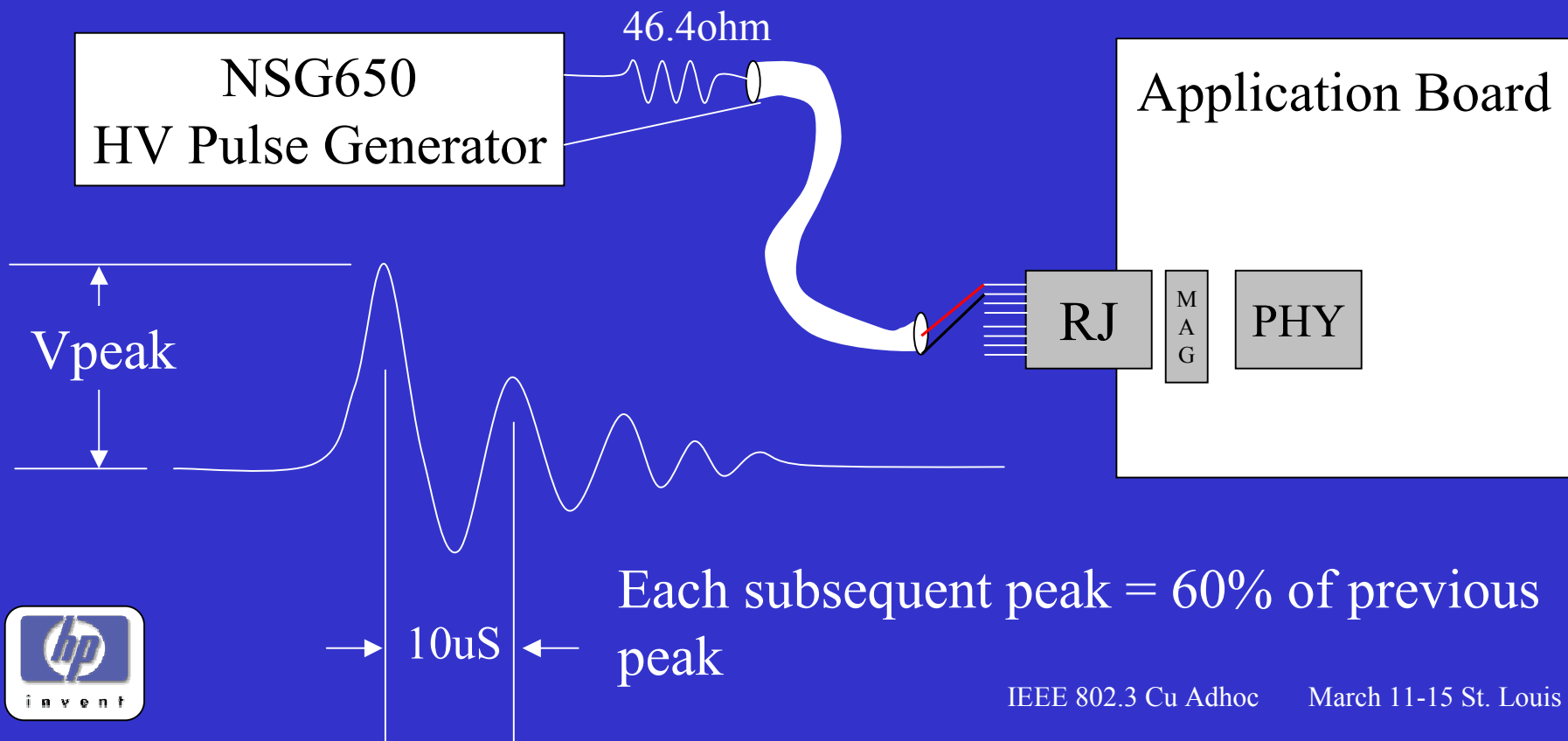
# Silicon Verification



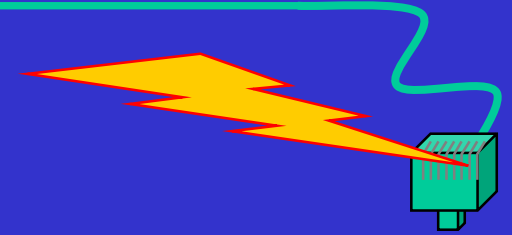
“Ring Wave” Generator – 200V to 4.5KV

Conversion Cable – Terminated for 3ohm-> 50 ohm

- 1) 10 Pulses @  $V_{peak}$ , alternate polarity, repeat
- 2) Discharge port and Verify PHY functionality
- 3) Increase  $V_{peak}$  by 100V, return to step 1



# Silicon Verification



## Benefits;

Ring Wave Generator is a common piece of equipment  
Deterministic application of energy into device  
Repeatable performance

## To Be Done;

Perform experiments with various silicon solutions  
Evaluate performance relative to installed base warranty rates

## To Be Determined;

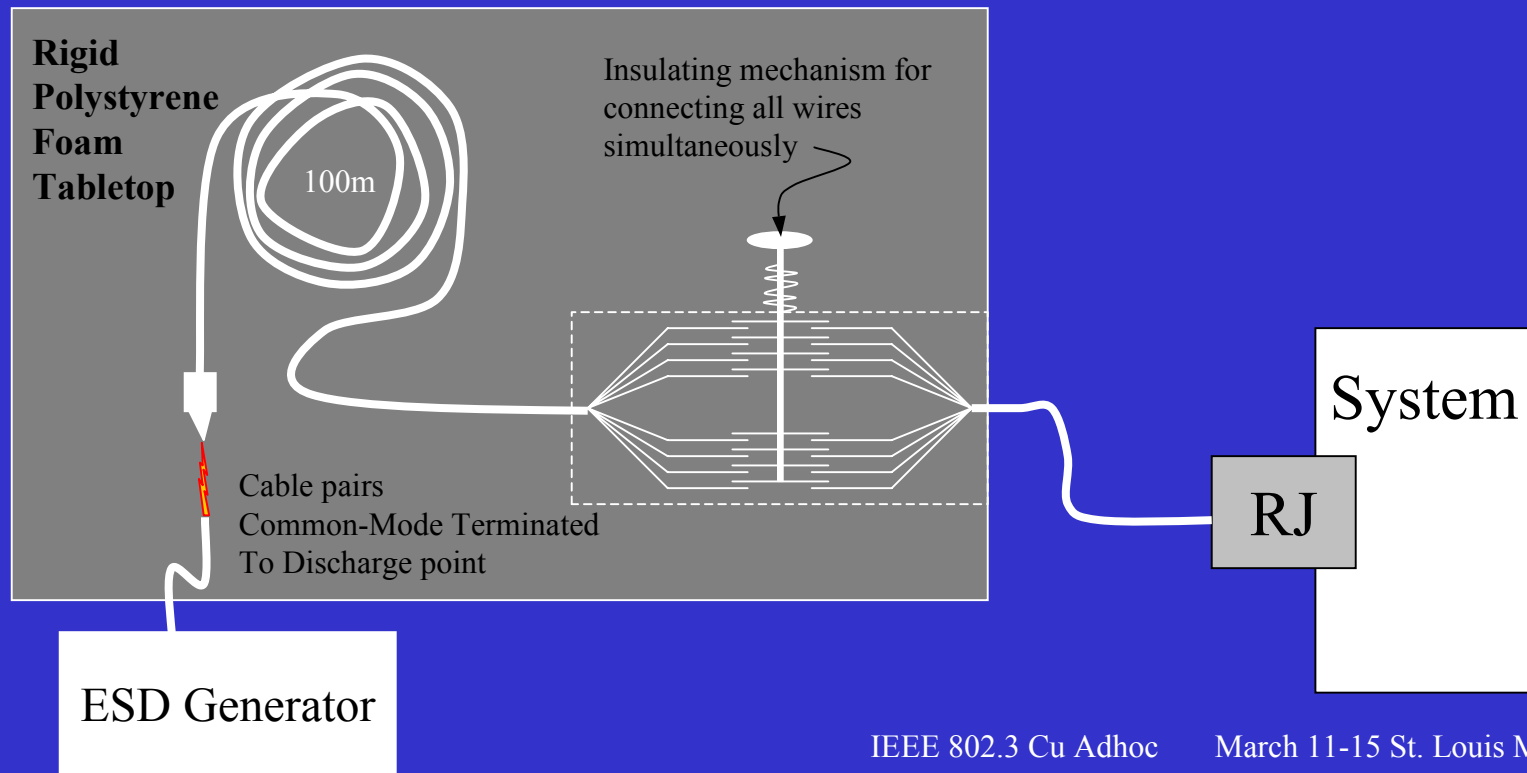
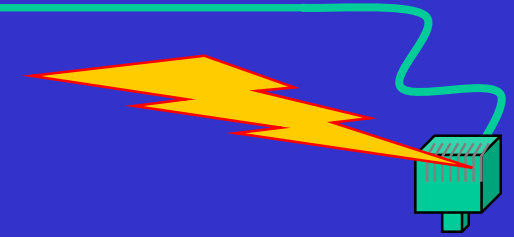
Acceptance criteria for pass/fail



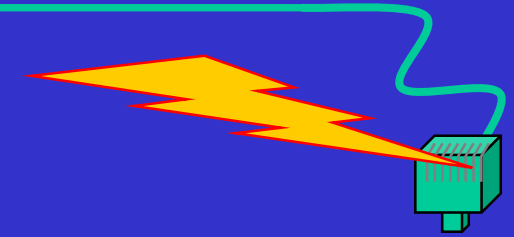
# System Verification

Procedure:

- 1) Charge Cable to  $V_{\text{discharge}}$
- 2) Push Button to discharge to RJ port
- 3) Use grounding cable to remove charge from RJ port
- 4) Repeat 1 through 3 ten times
- 5) Verify RJ port at all speed/duplex options
- 6) If OK, increase  $V_{\text{discharge}}$  and go to step 1



# System Verification



## Benefits;

- Easily constructed and applicable to qualification test environment
- Deterministic + Random application of energy into device
- Repeatable performance over many applications, yet still provides some variability to reproduce customer environmental variation

## To Be Done;

Perform experiments with various system solutions

Evaluate performance relative to installed base warranty rates

## To Be Determined;

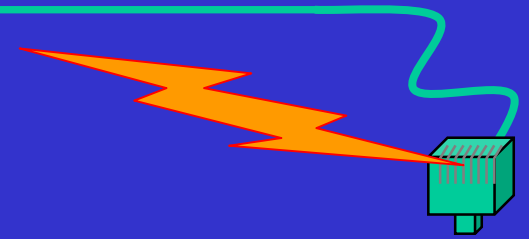
Best Equipment/Method of charging cable

Best Equipment/Method of determining charge potential on cable

Acceptance criteria for pass/fail



# CDE Adhoc Meeting



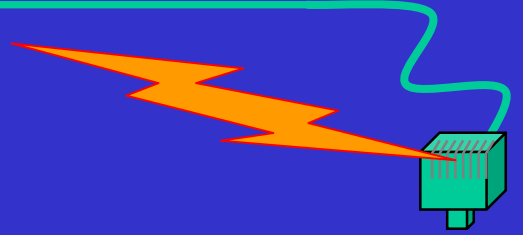
## *Status Report*

Daniel Dove

IEEE 802.3  
March 2002 Plenary  
St. Louis, MO

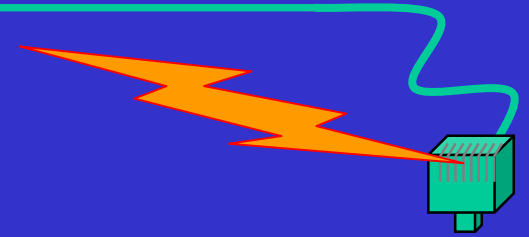




- 
- **Status:** (7 people – 7 companies attended)
  - Reviewed previous presentations and outlined basic issues
  - Dan Dove presented test methodologies for IC and system level verification.... More data to be gathered
  - Discussion of root cause questions
    - IC Geometries shrinking?
    - Tribo-electric effects of different materials?
    - Installation practices?
    - Geographical/Environmental differences?
  - Discussion of future efforts
    - More measurements and data seeking correlation between test methods and established field warranty results
    - Experiments in tribo-electric charging rates of various materials



- **Status:** (continued...)
- **Discussion of interim/future meetings**
  - May want to ride along with 802.3af – (Dan to discuss with Steve Carlson)... Steve has graciously approved
  - E-mail discussion to be held via reflector
- **Adjourned**



[http://grouper.ieee.org/groups/802/3/ad\\_hoc/copperdis/public/index.html](http://grouper.ieee.org/groups/802/3/ad_hoc/copperdis/public/index.html)



# 802.3ae Report

St. Louis, MO

**Jonathan Thatcher**

[Jonathan.thatcher@worldwidepackets.com](mailto:Jonathan.thatcher@worldwidepackets.com)

# January Interim

## **Results of Initial Sponsor Ballot fairly clean and quickly and easily resolved**

- **excepting Clause 52**
  - Significant issues raised with respect to ability to test to specifications with existing test equipment
  - Fears raised of unusually high false negatives on operational OC-192 parts.
  - Authorized circulation of Draft 4.01 to Task Force (not to sponsor ballot group)
  - Authorized recirculation of D4.1 contingent on closing Clause 52 comments at 2<sup>nd</sup> interim.
  - Planned Feb meeting at Agilent Santa Rosa to complete comment resolution

# February Interim

## All Clause 52 (53) comments resolved

- **Significant changes made to some test and measurement methodologies**
  - Believe that these methods could be accomplished with existing equipment
- **Agilent Test and Measurement demonstrated that test issues may be resolvable**
  - Several vendors accepted invitation to test parts
- **Chair opened Clause 52 for 802.3 & 802.3ae review**
  - Based on extent of changes
  - No comments received outside of sponsor ballot group

# OBJECTIVE

**802.3ae is operating to a plan that culminates in a June 2002 ratification**

## **Requires:**

- **2 interim meetings in month of April**
  - 2<sup>nd</sup> required if 3<sup>rd</sup> recirculation “not clean”
  - If seriously “not clean,” postpone 2<sup>nd</sup> till June
- **Conditional approval by 802.3**
- **Approval by 802**
  - Conditional or electronic ballot

## **Presumes:**

- **No substantive changes after this week**

# Optimistic Plan

- Mar 11 - Mar 14** 802.3 plenary meeting (last chance for technical change w/o risk of September slip)
- Mar 14 - Mar 15** Conditional approval for RevCom submission from 802.3 and LMSC
- Mar 18** Distribution of D4.2
- Mar 24 - Apr 3** 2<sup>nd</sup> recirculation ballot (possible TRs on changes)
- Apr 4 – 12** 802.3ae interim (no substantive changes)
- Apr 14** Distribution of D4.3
- Apr 19 – 29** 3<sup>rd</sup> recirculation ballot (possible pile-on TRs, no substantive changes)
- Apr 30** Tentative interim meeting
- Apr 30** D4.4 pre-submit to REVCOM (actual May 1?)
- May 1** 4th recirculation ballot (if required)
  - Pull from REVCOM if not clean
- Jun 20 – 22** Standards Board Meeting
- Jun 22** Ratification!!!

# April Meeting Announcement 1

**Date: April 8-10**

**Location: Vancouver, BC**

- **IEEE 802.3ae (10GbE) only**
- **Preannounce with 30 day notice on reflector**
- **Approval required by 802.3 (Thursday)**
- **Host (PMC Sierra) authorized by 802.3ae chair to sign contract**
- **Room Nights Risk!!**
  - Fibre Channel Meeting Same Week!
  - May not need 2.5 days



# Agenda for the week

## Tuesday

- **General Session: (8:30a-noon)**
- **Breakouts (1pm till...)**
  - Logic & Clause 53
  - Clause 52

## Wednesday

- **Breakouts continue**

## Thursday

- **Closing Session (8:30a –noon)**
- **802.3 Conditional Approval**

## Friday

- **802 Conditional Approval or Notification of Pending Electronic Ballot**

# Draft 4.0 Ballot Summary

**Total Voters in Pool: 109**

**Voters that submitted a ballot: 83**

- Affirmatives: 63
- Negatives: 13
- Abstentions: 7

## Results

- Return rate: 76% ( $\geq 75\%$ )
- Abstain rate: 8%
- Approval rate: 82% ( $\geq 75\%$ )

# Draft 4.0 Comment Summary

## Comments

- 27 commenters
- 369 comments

## 107 Technical Required Comments

- 63 against Clause 52

## 66 Technical Comments

## 196 Editorial Comments

# Draft 4.1 Comments / Ballot

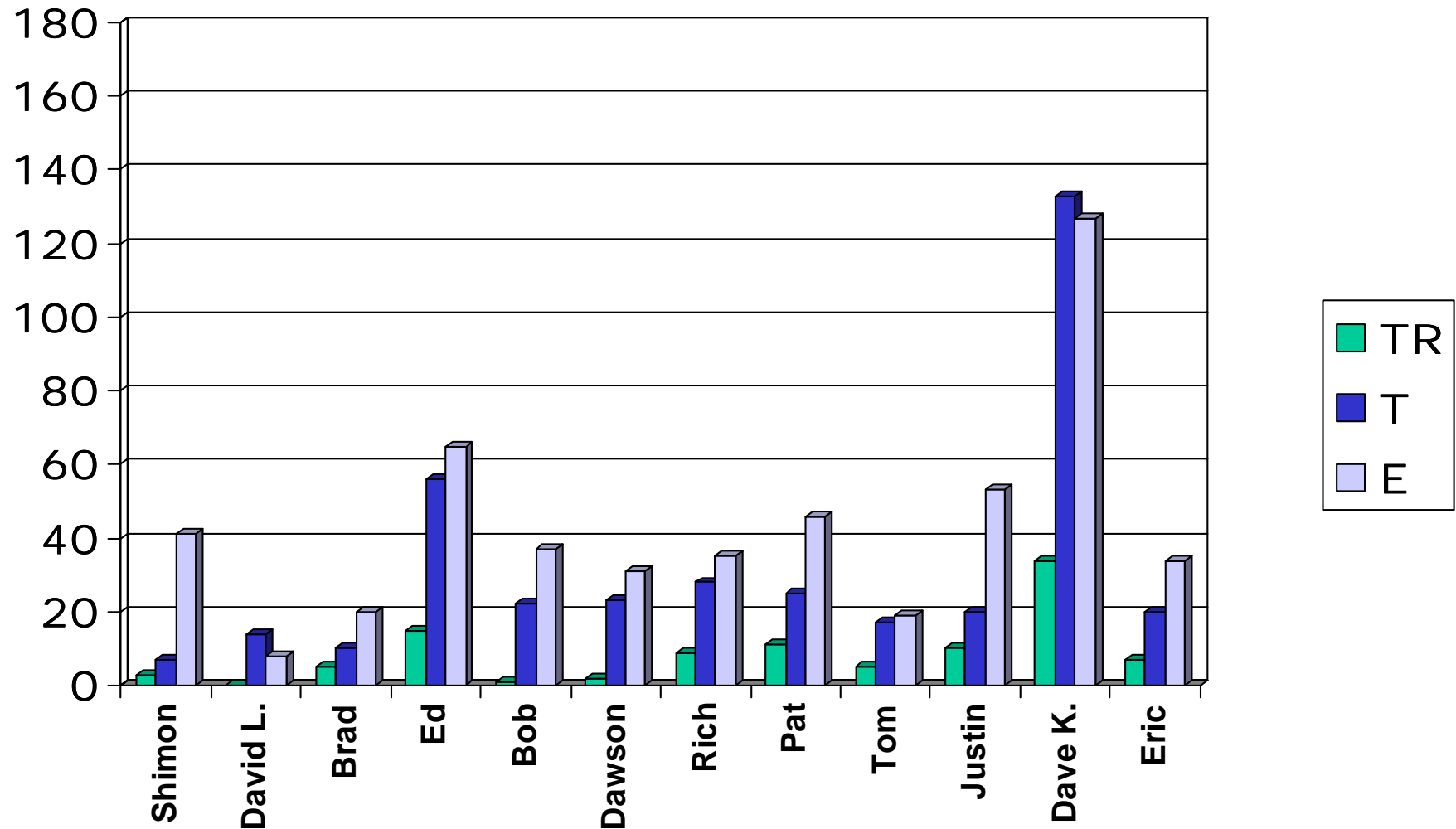
## **171 New comments received**

- **45 Technical Required**
- **61 Technical**
- **65 Editorial**

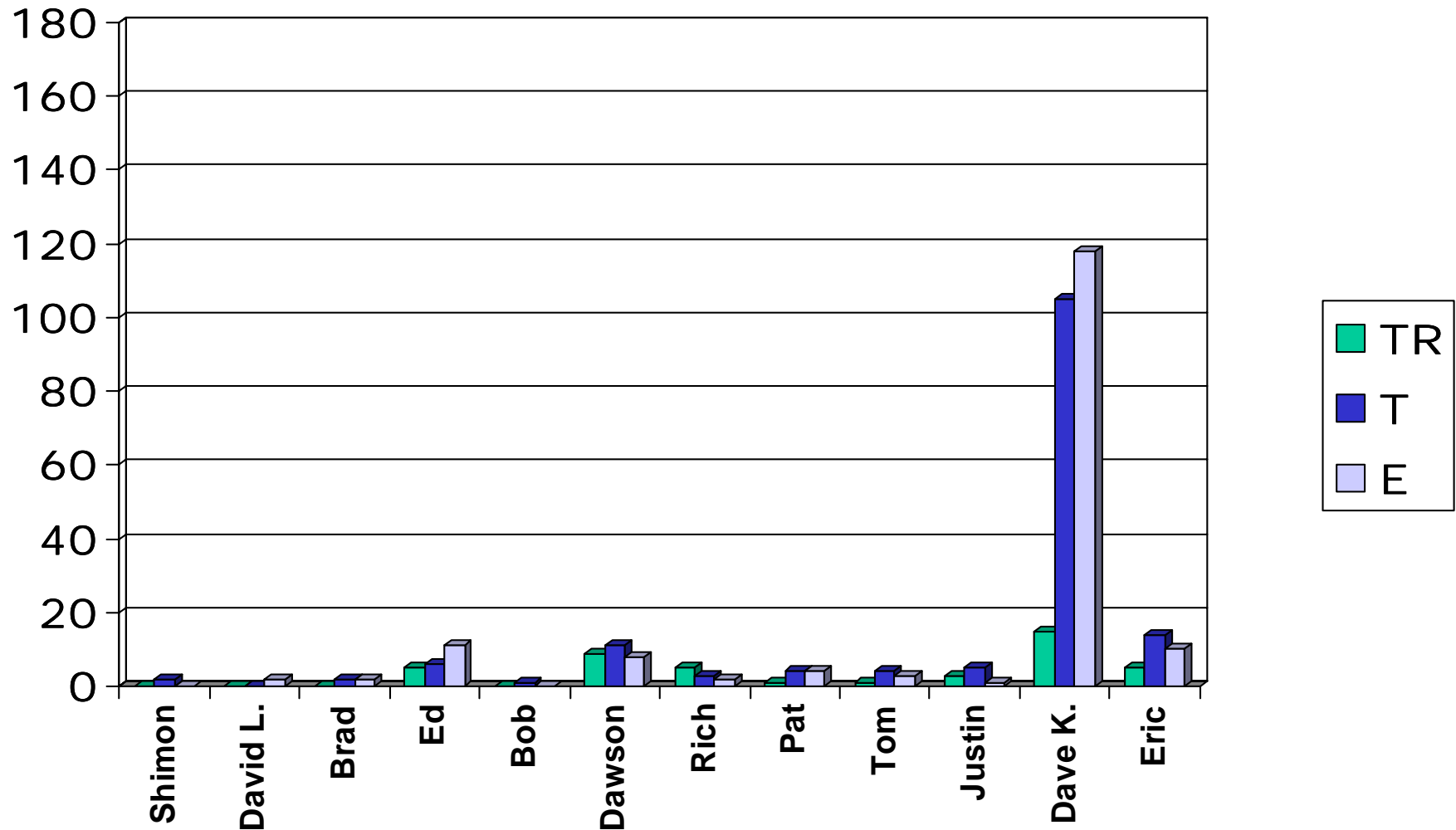
## **51 TR's unresolved from D4.0 Ballot**

## **Ballot Statistics TBD**

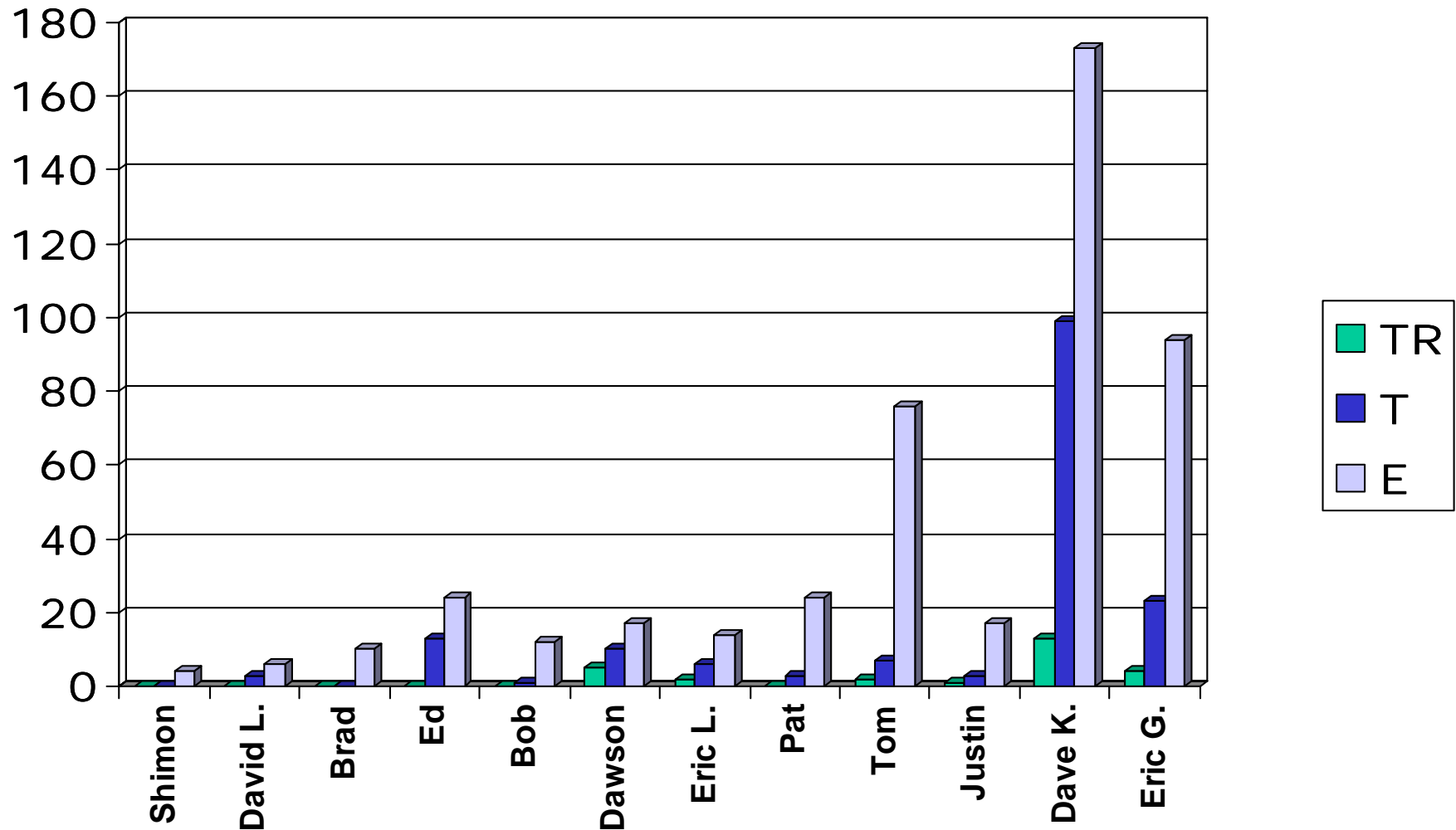
# D3.0 Comment Distribution



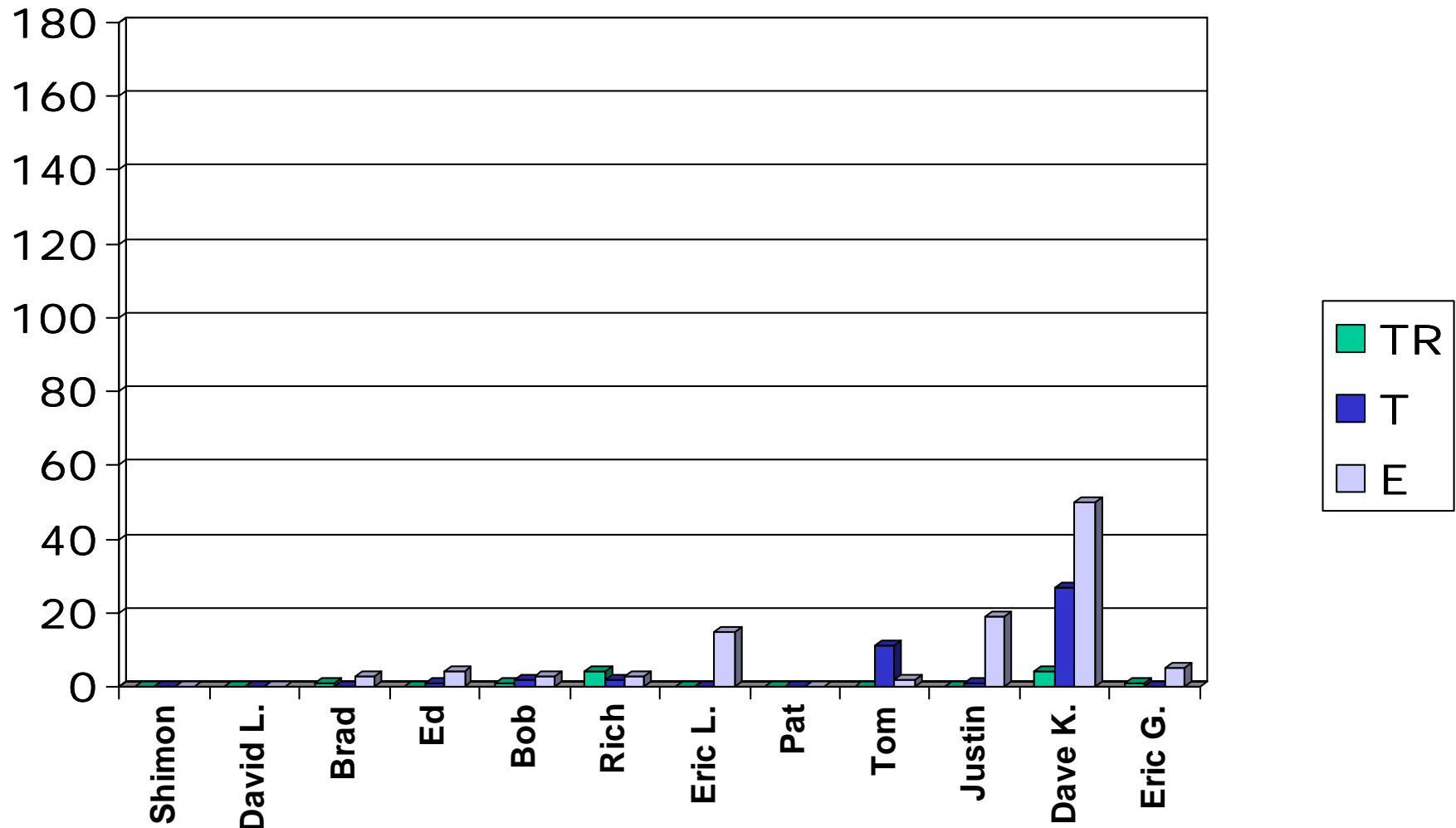
# D3.1 Comment Distribution



# D3.2 Comment Distribution

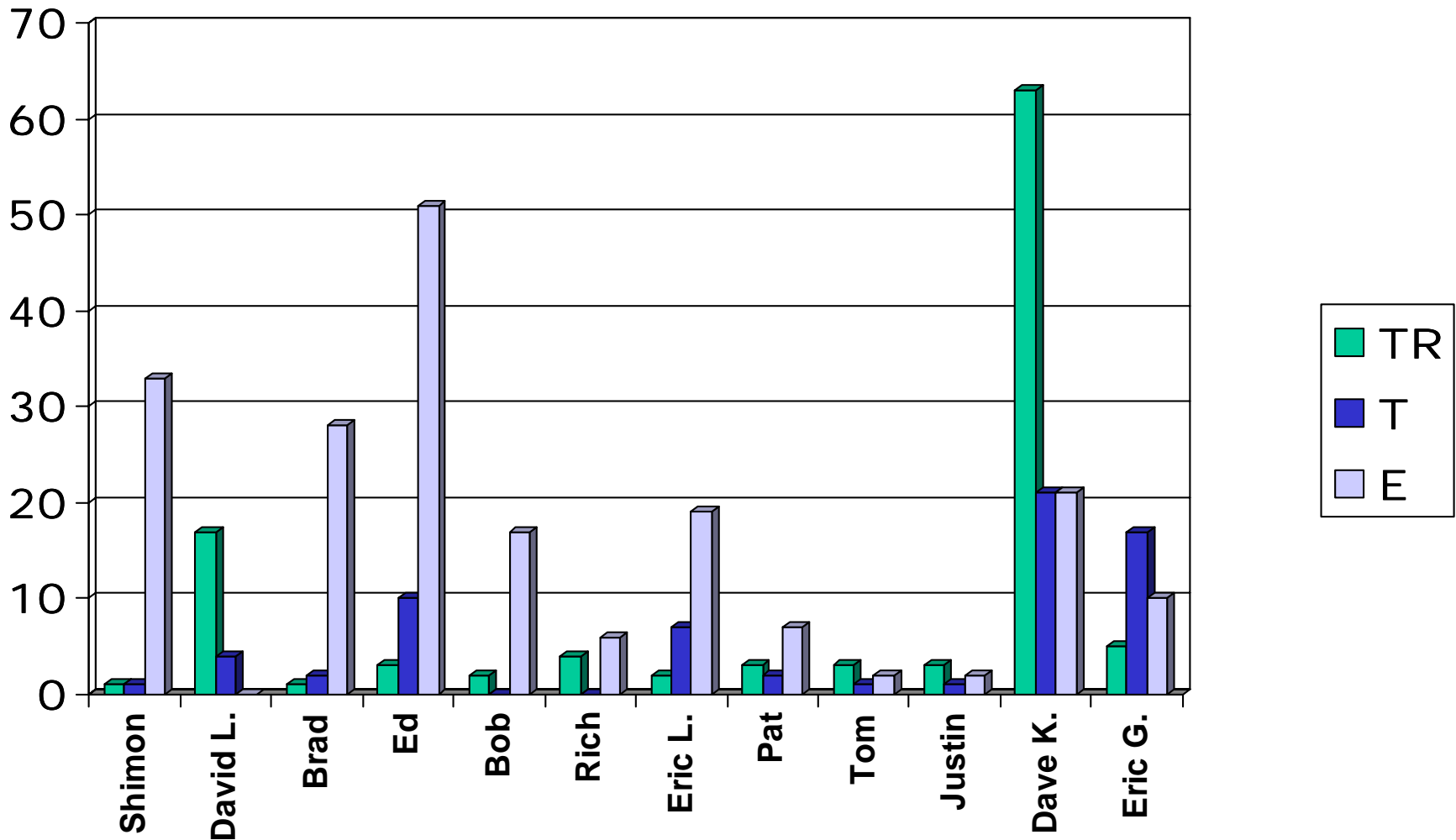


# D3.3 Comment Distribution

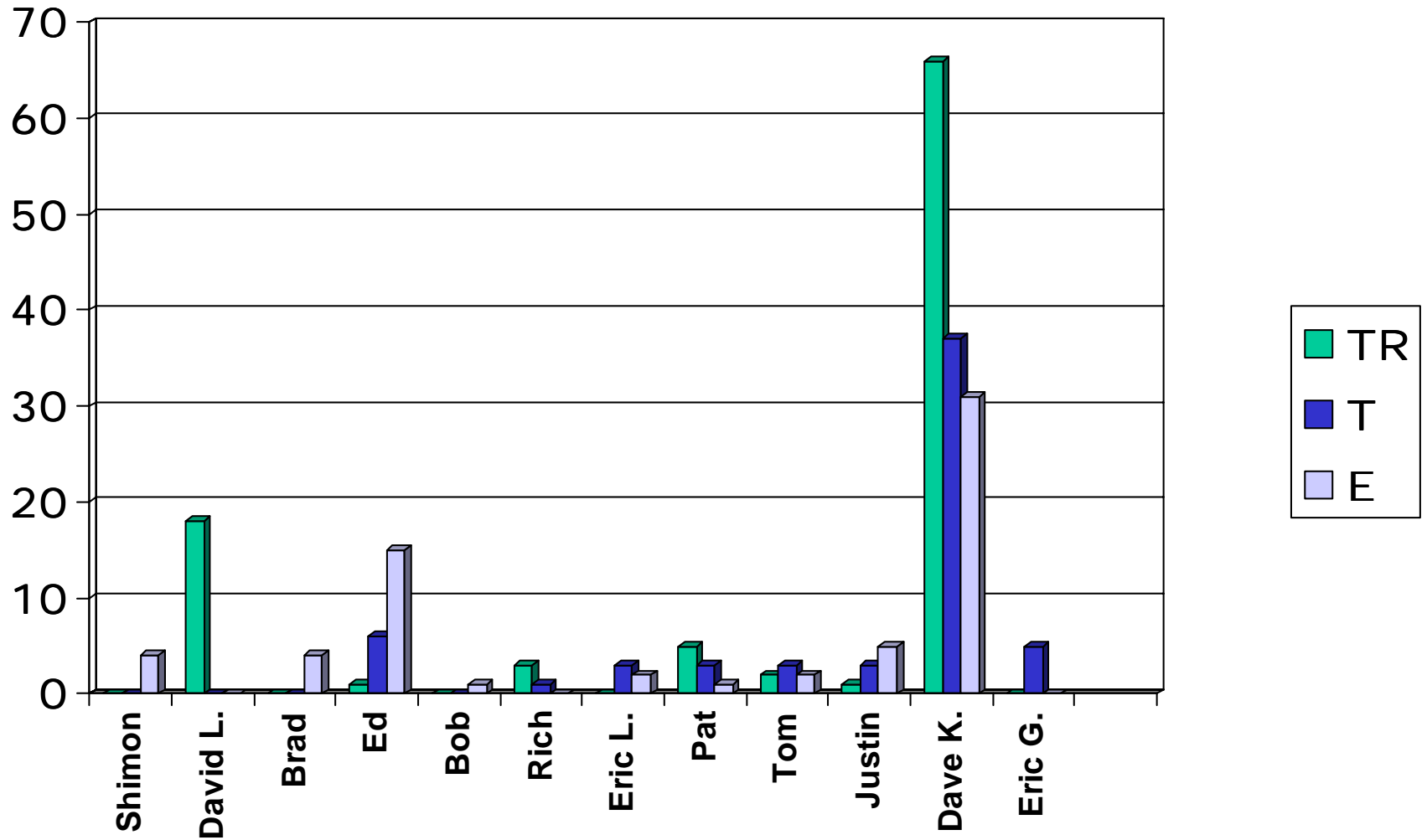




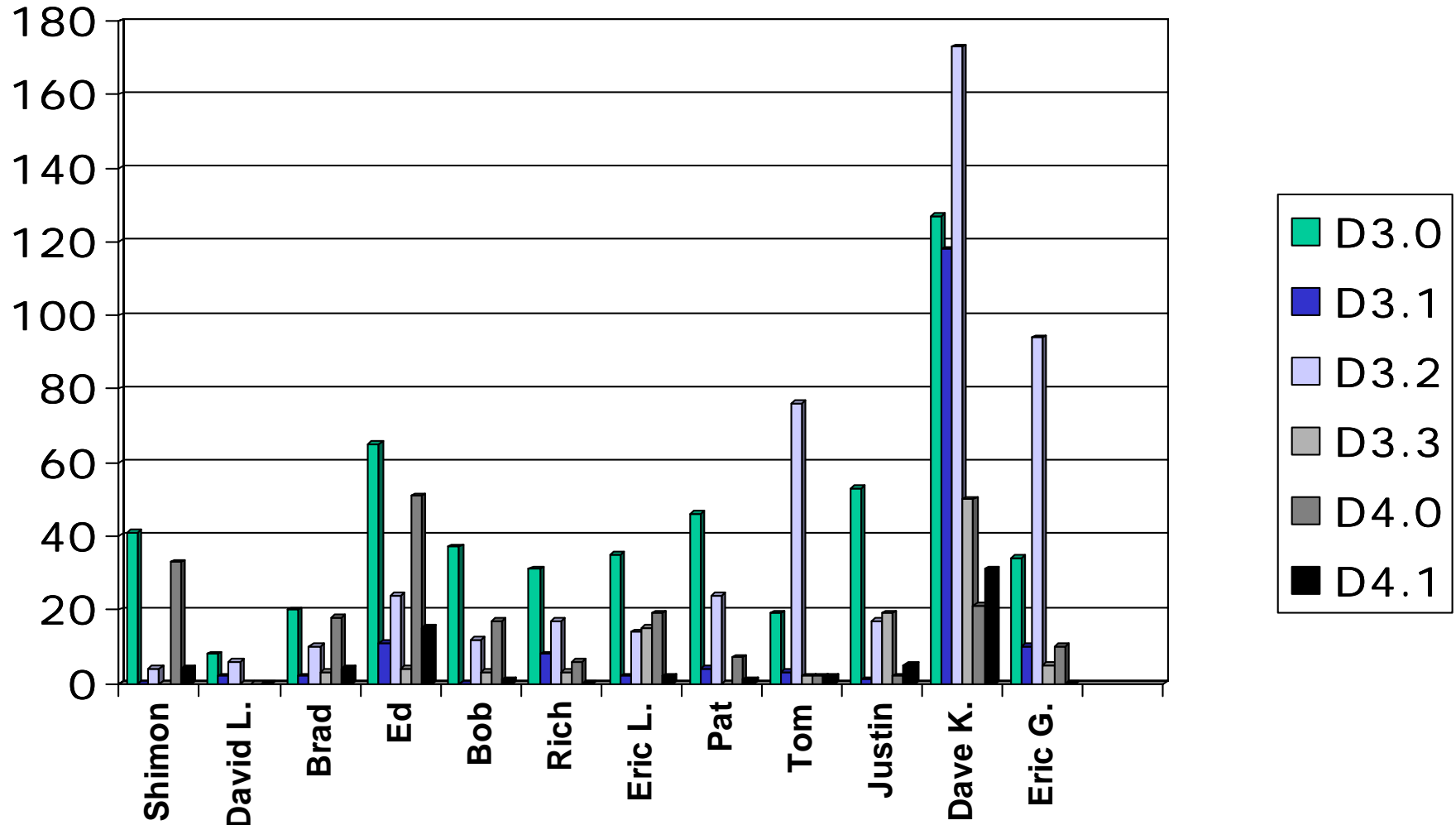
# D4.0 Comment Distribution



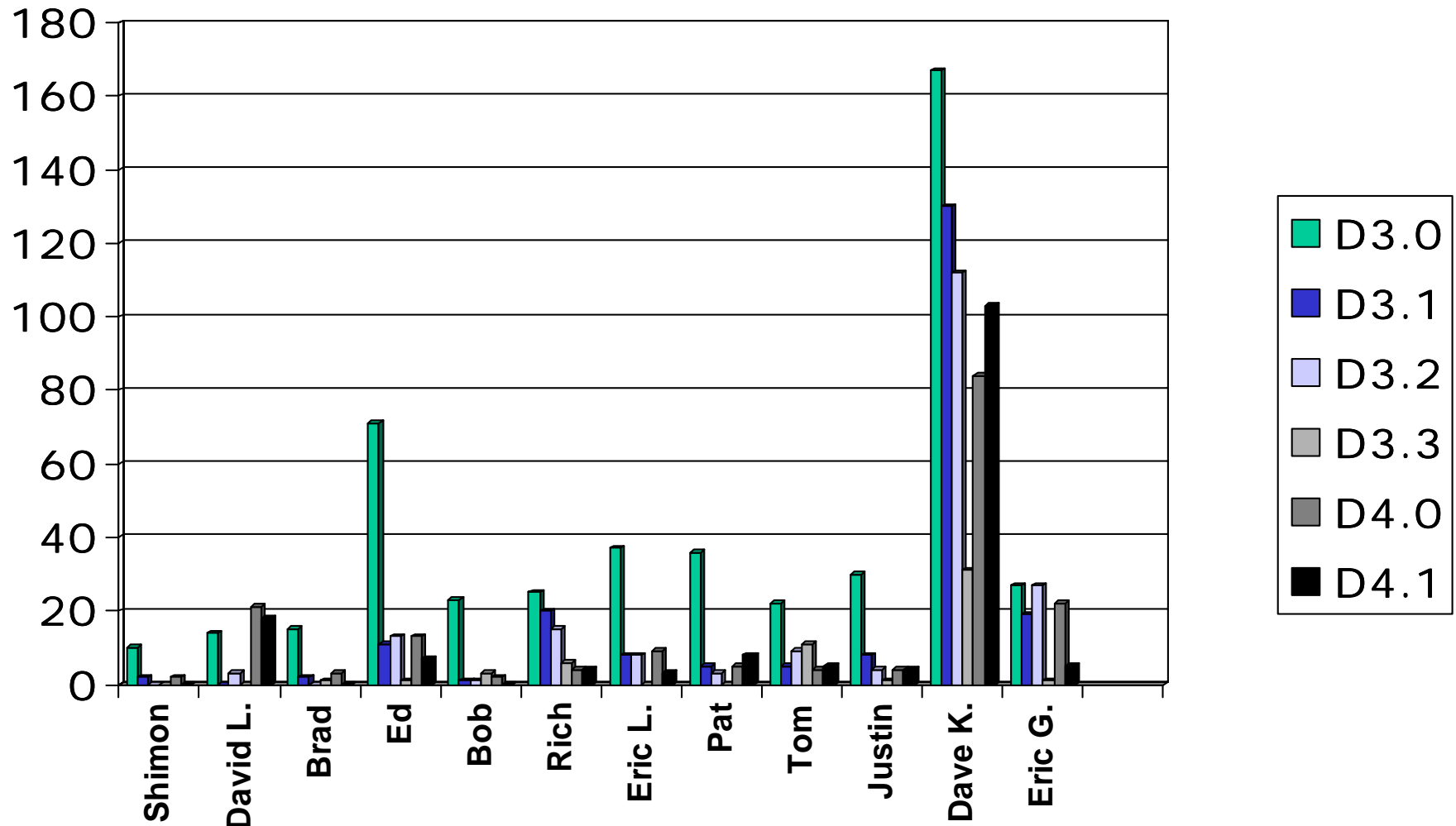
# D4.1 Comment Distribution



# Editorial Comments



# Technical Comments (T &TR)



# Big Ticket Items

# Clause 52

# Goals For The Week

## Final Resolution of Technical Comments and Issues

# 802.3ae Report

St. Louis, MO

**Jonathan Thatcher**

[Jonathan.thatcher@worldwidepackets.com](mailto:Jonathan.thatcher@worldwidepackets.com)

# OBJECTIVE

**802.3ae is operating to a plan that culminates in a June 2002 ratification**

## **Requires:**

- **2 interim meetings in month of April**
  - 2<sup>nd</sup> required if 3<sup>rd</sup> recirculation “not clean”
  - If seriously “not clean,” postpone 2<sup>nd</sup> till June
- **Conditional approval by 802.3**
- **Approval by 802**
  - Conditional or electronic ballot

## **Presumes:**

- **No substantive changes after this week**



# IEEE 802.3ae Editor Report

...and here's  
**BRAD**

# Plan

- Mar 11 - 14** 802.3 plenary meeting (last chance for technical change w/o risk of September slip)
- Mar 14 - 15** Conditional approval for RevCom submission from 802.3 and LMSC
- Mar 18** 802.3ae predistribution of D4.2
- Mar 24 - Apr 3** 2<sup>nd</sup> recirculation ballot (possible TRs on changes)
- Apr 8-10** 802.3ae interim (no substantive changes)
- Apr 10** 802.3ae Distribution of D4.3
- Apr 15 – 25** 3<sup>rd</sup> recirculation ballot (possible pile-on TRs, no substantive changes)
- Apr 29** Tentative interim meeting (could be 4/30)
- May 1** 4th recirculation ballot (if required)  
-- Pull from REVCOM if not clean
- May 2** D4.4 pre-submit to REVCOM
- June 11-13** Standards Board Meeting
- June 13** **Ratification!!!**

## 802.3ae Motion

**802.3ae supports and requests an aggressive schedule to enable June Standards Board ratification based on agreement on significant technical issues, resolution of technical comments and the limited scope of the D4.2 Sponsor Ballot recirculation.**

**Moved: David Kabal Second: Ben Brown**

**Approved by [acclamation](#)**

# 802.3ae Interim Meetings

**Move that 802.3ae approve the following interim meetings:**

## **Meeting 1:**

**Date: April 8-10**

**Location: Vancouver, BC**

**Note: Host PMC-Sierra**

## **Meeting 2**

**Date: April 29**

**Location: Silicon Valley**

**Note: Host TBD**

**Moved: David Kabal**

**Second: Ben Brown**

**Approved by [acclamation](#)**

# IEEE 802.3 Motion

**Move that 802.3 approve the following  
802.3ae interim meetings:**

## **Meeting 1:**

**Date: April 8-10**

**Location: Vancouver, BC**

**Note: Host PMC-Sierra**

## **Meeting 2**

**Date: April 29**

**Location: Silicon Valley**

**Note: Host TBD**

**Moved: Jonathan Thatcher  
By acclamation**

# 802.3ae Motion to 802.3

## **Direct the 802.3ae chair to present motion to 802.3:**

Move that

- 802.3 affirm the resolution to IEEE 802.3ae Draft 4.1 comments and grants approval for IEEE 802.3ae to conduct recirculations, as needed.
- Direct the chair of 802.3 to seek LMSC conditional approval for pre-submission to the June REVCOM meeting per LMSC rules, Procedure 10.

**Moved: Brad Booth      Second: Petar Pepeljugoski**

**For: 41    Opposed: 0    Abstains: 0**

# IEEE 802.3 Motion

**Move that**

- **802.3 affirm the resolution to IEEE 802.3ae Draft 4.1 comments and grants approval for IEEE 802.3ae to conduct recirculations, as needed.**
- **Direct the chair of 802.3 to seek LMSC conditional approval for pre-submission to the June REVCOM meeting per LMSC rules, Procedure 10.**

**Moved: Jonathan Thatcher**

**For: 101 Opposed: 0 Abstains: 0**

THANK YOU VERY MUCH

**If all goes well, this will be the  
last 802.3 Closing Plenary  
Report by 802.3ae**

- **Yes, you will get a report in the  
Opening Plenary**
- **Thank you for your help and support**





# **Sponsor D4.1 Ballot Summary and Status**

Brad Booth  
IEEE P802.3ae



# Ballot Summary

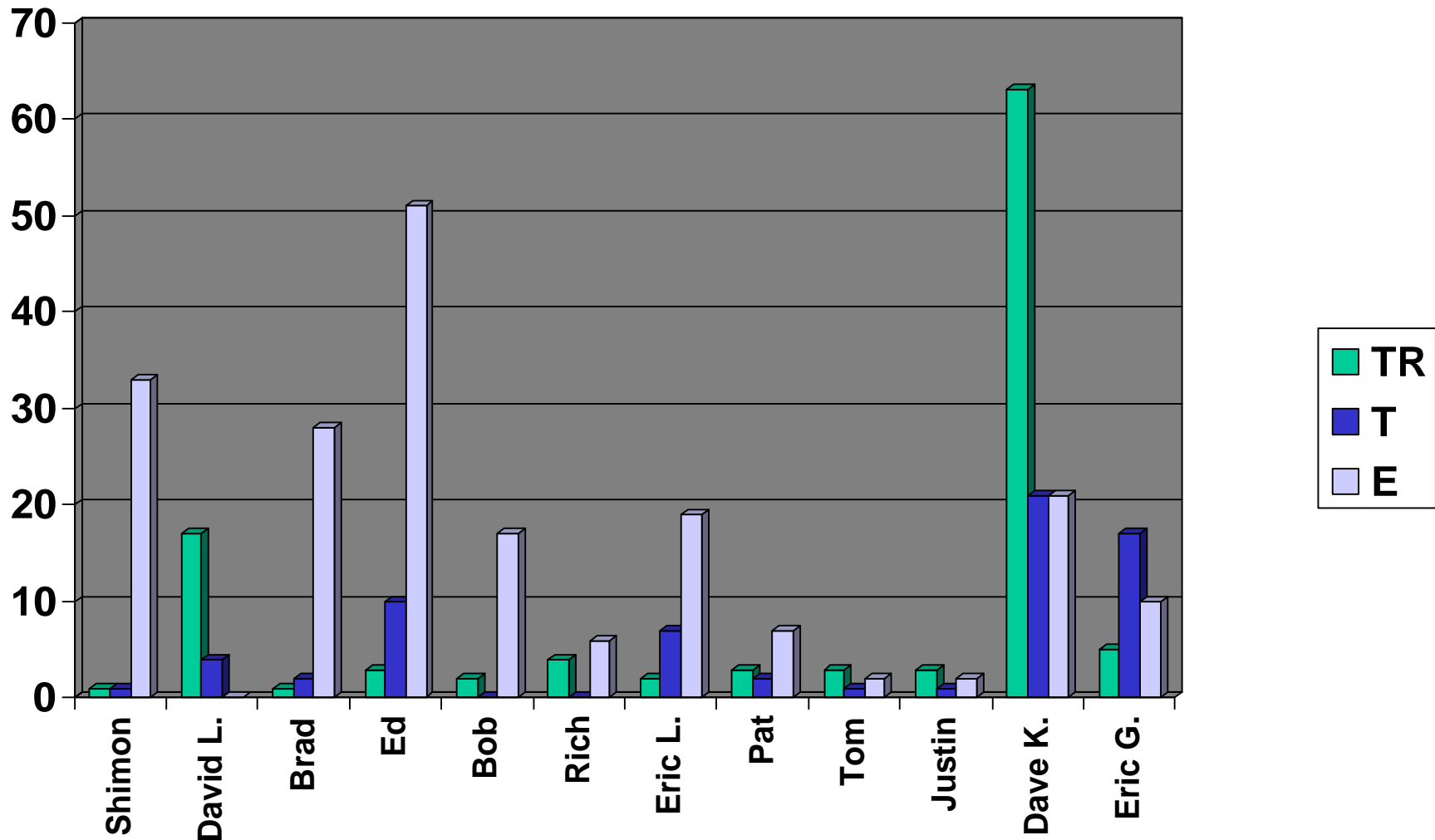
- Total Voters in Pool: 109
- Voters that submitted a ballot: 87
  - Affirmatives: 68
  - Negatives: 14
  - Abstentions: 5
- Results
  - Return rate: 79% (? 75%)
  - Abstain rate: 5%
  - Approval rate: 82% (? 75%)



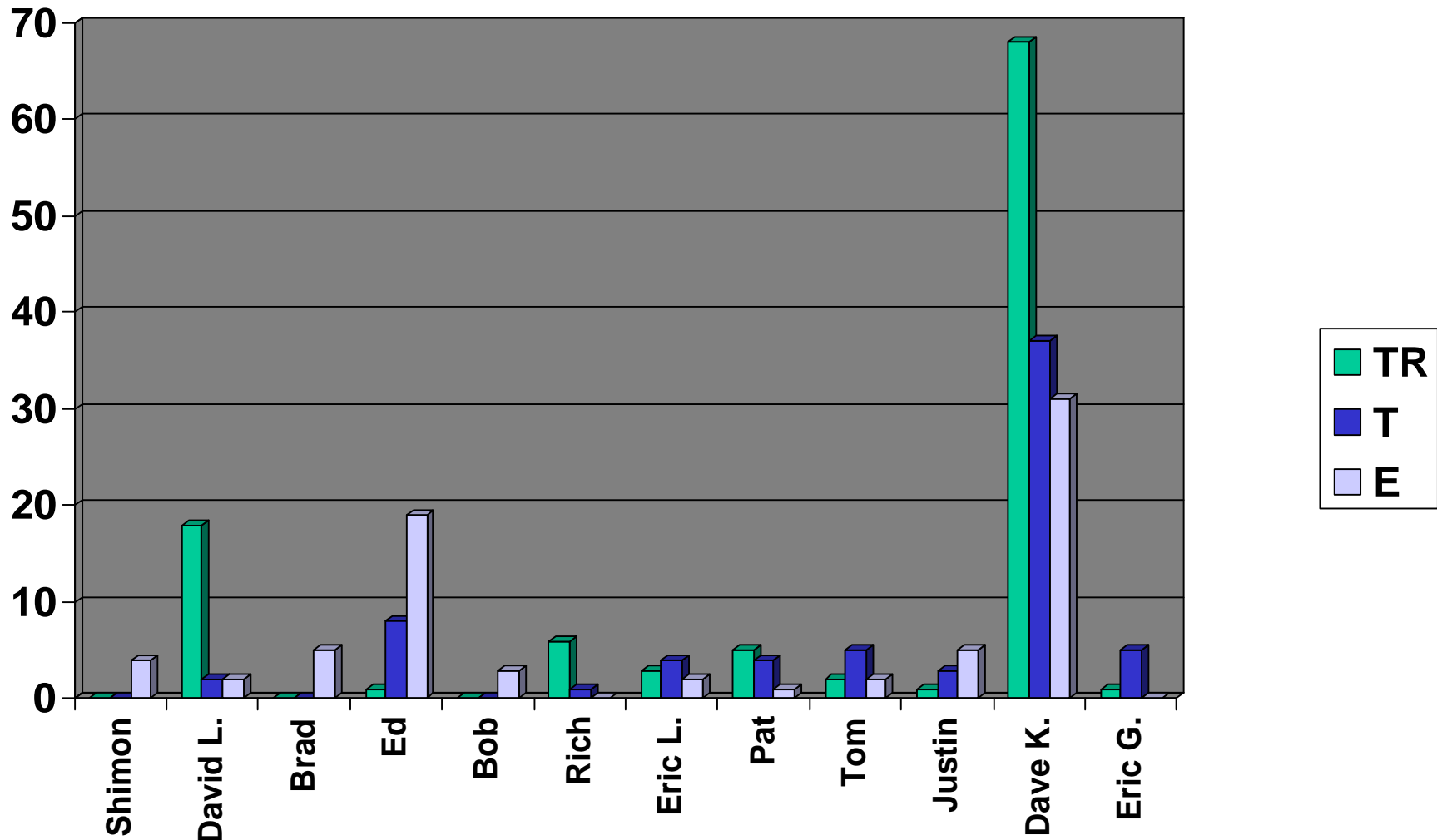
# Comment Summary

- New comments
  - 19 commenters (Thanks!)
  - 197 comments
- 105 Technical Required Comments
  - 51 unresolved from D4.0
- 69 Technical Comments
- 74 Editorial Comments

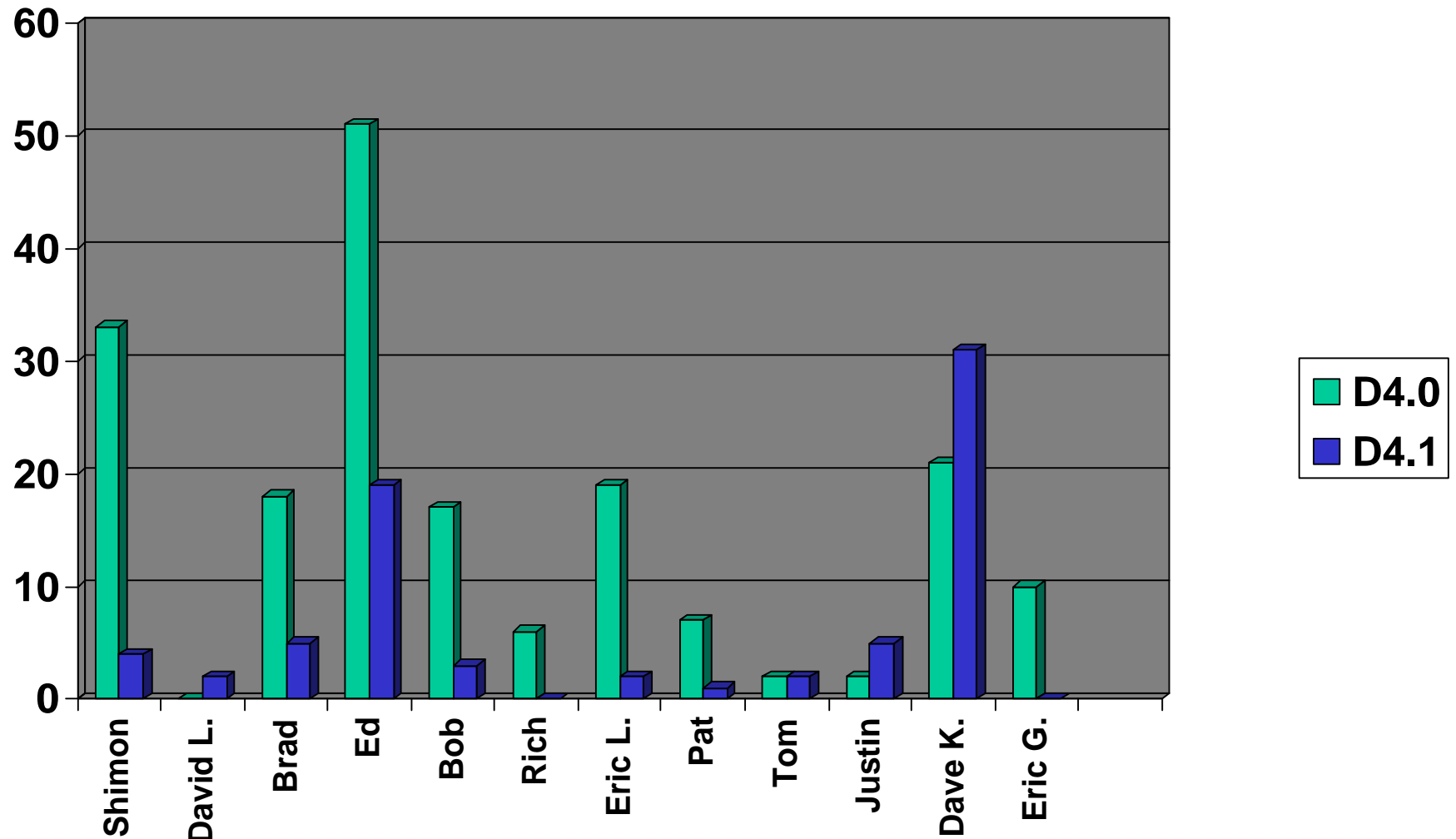
# D4.0 Comment Distribution



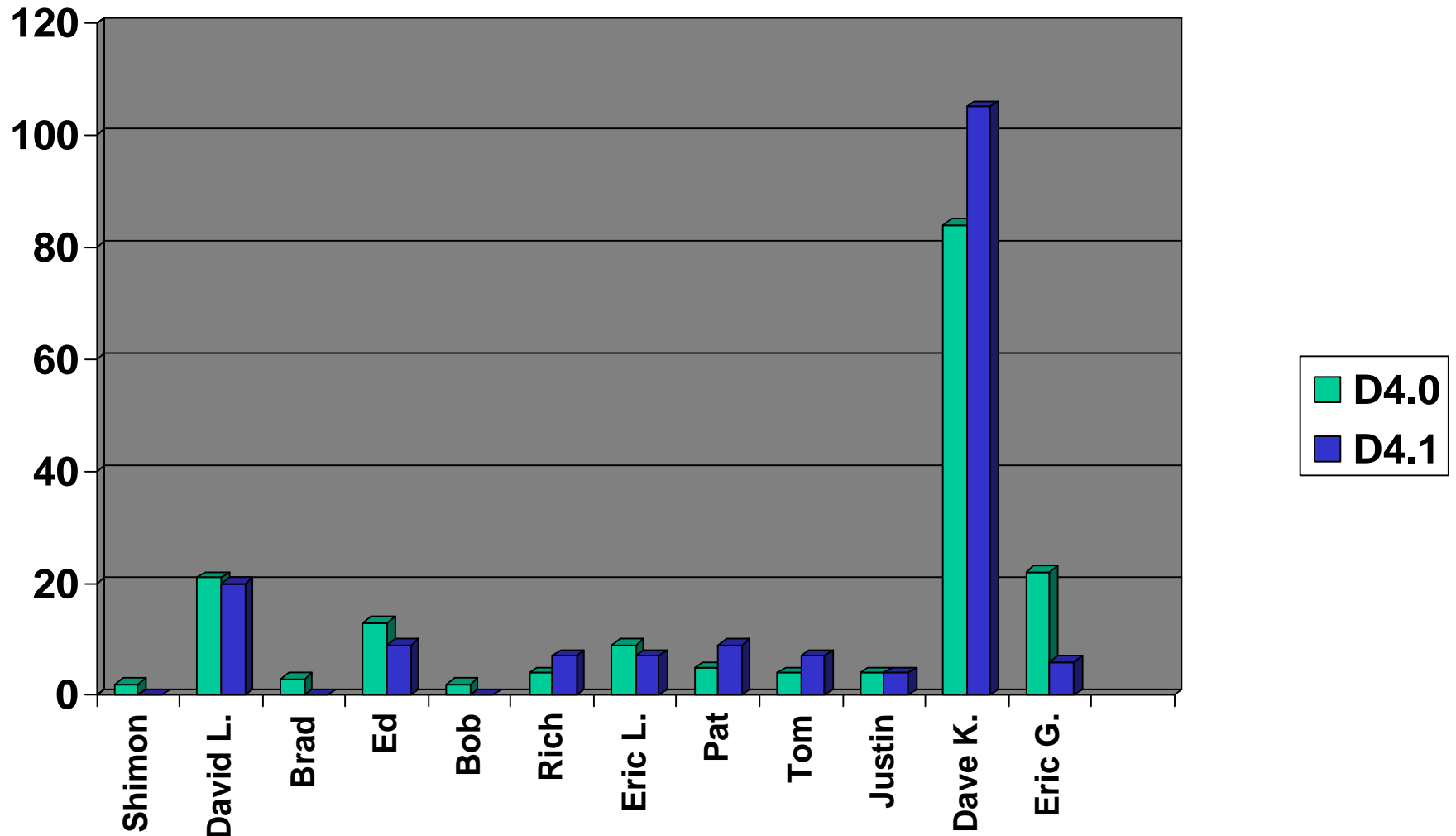
# D4.1 Comment Distribution



# Editorial Comments



# Technical Comments (T &TR)





**Thanks!**

Comments?

Questions?



# **DTE Power via MDI**

## **802.3af Task Force Opening Plenary Meeting Report March 11, 2002 St. Louis, MO**

Steve Carlson, TF Chair  
scarlson@esta.org

# March Plenary Meeting

- Interim meeting in Raleigh, NC
  - Hosted by AMCC
  - 34 people from 17 companies
  - 802.3 WG Ballot Results
  - PICS from UNH
  - Comment Resolution to D3.0
    - All comments posted on Web site

# March Plenary Meeting

- Results from November Plenary
  - 802.3 WG Ballot opened on 19 November, 2001 and closed on 30 December 2001

# March Plenary Meeting

- WG Ballot Results
  - 309 802.3 voters (?)
  - 182 ballots returned
  - 74 "APPROVE"
  - 22 "APPROVE WITH COMMENTS"
  - 18 "DISAPPROVE" (TR)
  - 68 "ABSTAIN"
    - 49 "LACK OF EXPERTISE"
    - 19 "LACK OF TIME"

# March Plenary Meeting

- 58.9% Return Rate (50% required)
- 84.2% Approval Rate (75% required)
- 37.4 % Abstain Rate
  - 68 “ABSTAIN”
    - 49 “LACK OF EXPERTISE”
    - 19 “LACK OF TIME”

# March Plenary Meeting

- 490 total comments received
- 400 editorial
  - Group vote on Comment Editor's resolutions
  - Discussed and cleared 13 exceptions
- 90 technical
  - Divided into 17 "topics"
  - 24 (12 TR) unresolved at meeting end (lack of quorum)
  - These will be addressed this week
- 50 comments (E & T, TR) came in after the deadline
  - These will be addressed this week

# Plans for the Week

The DTE Power via MDI TF will meet on Tuesday and Wednesday from 8:30AM to 5:30PM, and Thursday 8:30AM to noon in Regency B.

Goals for the week:

- Presentations/Comment Resolution Clause 33
  - Finish comment resolution to D3.0
  - Charter Editor to create D3.1 for recirculation to 802.3 WG
  - Request waiver from 802.3 WG re: ABSTAINS
  - Request approval to form Sponsor Ballot Pool
  - Thanks to Alan Flatman, ISO/IEC, and Chris DiMinico, TR-42, for liaison support

# Plans for the Week

## Future Meetings:

May Interim

Location TBD

May 13 - 17 2002

July Plenary – Hyatt Regency

Vancouver, BC

July 8 - 12, 2002



# Task Force Info

The DTE Power via MDI Task Force maintains up-to-date information at:

<http://www.ieee802.org/3/af/index.html>

All archive information from earlier meetings are available. Information on subscribing to the e-mail reflector, proper usage thereof, and presentation guidelines are here. Drafts may be found in the private area.

# **DTE Power via MDI**

## **802.3af Task Force Closing Plenary Meeting Report March 14, 2002 St. Louis, MO**

Steve Carlson, TF Chair

# General Report

Goals for the week:

- Resolve remaining comments, including those that came in after the deadline –DONE!
- Gather sign-offs on TR resolution - DONE
- Decide on dates for May Interim – DONE!
- Create work plan to move forwards – DONE!

Thanks to the TF and the Editor's for a focused and productive meeting!

# May Interim Meeting

- Dates for 802.3af
  - May 13 - 15, 2002
    - Monday – Wednesday
    - West Coast location TBD
    - Coordinated by Face-to-Face Events
    - No co-location
    - Meeting fee

# Presentations

“PSE Disconnect Alternatives,” Yair Darshan, PowerDsine

“Ad Hoc Report,” Yair Darshan, PowerDsine

TR-42 Liaison Report, Chris Di Minico

# Liaison Report

SC25 WG3 Kyoto response to liaison letter from 802.3:

- When mid-span power insertion equipment replaces a generic cabling component or components, it shall meet the performance requirements of the component or components it replaces (e.g., patch cord, patch panel or combination thereof), regardless of the interfaces used for input and output connections.
- Placement of mid-span power insertion equipment shall be external to the permanent link.

# Comment Resolution to D3.0 WG Ballot

- 490 comments, 90 technical
- 50 additional comments after the deadline
- Additional 50 comments and remaining comments from Raleigh resolved by TF
  - Greater than 95% TF consensus, typically 100%

# March Plenary Meeting

- WG Ballot Results prior to Plenary
  - 309 802.3 voters (?)
  - 182 ballots returned
  - 74 "APPROVE"
  - 22 "APPROVE WITH COMMENTS"
  - 18 "DISAPPROVE" (TR)
  - 68 "ABSTAIN"
    - 49 "LACK OF EXPERTISE"
    - 19 "LACK OF TIME"



# March Plenary Meeting

## Results after TF meeting at Plenary

- 59.9% Return Rate (50% required)
- 93.1% Approval Rate (75% required)
- 37.3 % Abstain Rate
  - 68 "ABSTAIN"
    - 49 "LACK OF EXPERTISE"
    - 19 "LACK OF TIME"
- 11 "DISAPPROVE" changed to "APPROVE WITH COMMENTS"

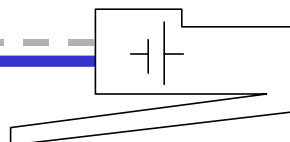
# March Plenary Meeting

- Remaining open comments
  - TR: 2 comments on power removal (came in after deadline)
  - Comment #678 held as a placeholder pending alternative proposal for power removal

# March Plenary Meeting

- Comments resolved but not signed-off:
  - T: 2 on power removal (commenters not present)
  - T: 4 on power supply specs (need numbers, test fixtures)
  - T: 2 on cables and connectors (pending information from IEC/ISO 11801)
  - T: 1 on noise margin (commenter not present)
  - T: 1 on labeling (commenter not present)
  - T: 1 on enhancing 7-layer stack diagram

11 comments carry forward into D3.1



# Plan to Move Forward

- Create D3.01 for TF review
  - Roll in all approved changes to date
  - Add proposed text for disconnect
- D3.01 recirculation 29 March – April 13, 2002
- Editor's Comment Resolution 15 April – 5 May 2002
- Comment Database to TF 5 May 2002
- TF Comment resolution 13 at Interim, May – 15 May 2002
- Charter D3.1 for 802.3 WG Recirculation
- D3.1 802.3 WG recirculation 1 June – 15 June 2002

# Plan to Move Forward

- Editor's Comment Resolution 16 June – July 1 2002
- Comment Database to TF 2 July 2002
- Comment Resolution to D3.1 9 July – 11 July at Plenary
- Possible 2<sup>nd</sup> 802.3 WG recirculation OR request for Sponsor Ballot Pool

# Plan to Move Forward

- Technical work plan
  - Ad hoc to create:
    - Scope of work
    - Testing to be performed
    - Agree on test methodology, set-ups
    - Create testing timeline
    - Sign-on – who will do the work?
    - Present results - work to be completed prior to May Interim Meeting

# TF Motions

## Motion 1

10:05a 3/14/02

Motion to charter the editor to produce draft 3.01 for task force circulation and review according to the work schedule published by Steve Carlson on March 13th, 2002.

Moved: Yair Darshan Second: C Cullen

Y-21 N-0 A-0 Technical 75%

# TF Motions

## Motion 2

10:07a 3/14/02

Motion that chair be chartered to arrange a three-day interim meeting during the week of May 13 in a Mountain or Pacific time zone location, which may include a meeting fee not to exceed \$200 per person.

Moved: Dan Dove Second: Mike McCormack

Y-20 N-0 A-1



# TF Motions

## Motion 3

11:42a 3/14/2002

Motion to instruct the chair to request that the 802.3 working group affirm changes to P802.3af D3.0 and authorize the P802.3af task force to create drafts, and to conduct recirculation ballots as necessary to resolve comments received during the ballot process.

Moved: David Law Second: Dan Dove

Y-25 N-0 A-0 Technical -75% required PASSED!

# IEEE P802.3 Motion

Move on behalf of P802.3af TF to request that 802.3 working group affirm changes to P802.3af D3.0 and authorize the P802.3af task force to create drafts, and to conduct recirculation ballots as necessary to resolve comments received during the ballot process.

M: Steve Carlson

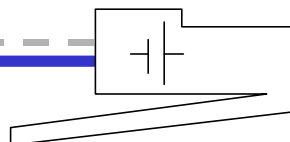
Technical 75%

Date: March 14, 2002

Time: 2:55PM

Y: 82                      N: 0                      A: 1

Passed/Failed: PASS



# IEEE P802.3 Motion

Move to request that the 802.3 working group suspend the requirement that the abstention ratio must be 30% or less for P802.3af D3.0 WG Ballot due to the large number of ballots returned as "Abstain – Lack of Expertise" given that the nature of this project is orthogonal to normal 802.3 work.

M: S Carlson

S: B Quakenbush

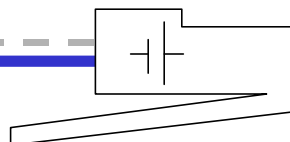
Technical 75%

Date: March 14, 2002

Time: 2:59PM

Y: 80                      N: 2                      A: 1

Passed/Failed: PASS



# Task Force Info

The DTE Power via MDI Task Force maintains up-to-date information at:

<http://www.ieee802.org/3/af/index.html>

All archive information from earlier minutes is available. Information on subscribing to the e-mail reflector, proper usage thereof, and presentation guidelines are here. Drafts may be found in the private area.

# IEEE P802.3 Maintenance

March 11th, 2001

St Louis, MO

David Law

# Maintenance Requests Status

- 94 Maintenance requests
- 13 new Maintenance requests since November
- Current status -

Ready for ballot	6
Awaiting clarification	1
Errata	1
To be categorised	13
Review by Technical experts	4
Withdrawn	3
Published	66

# IEEE P802.3ag Maintenance #6

- IEEE P802.3ag conditionally approved at 7th December 2001 Standards Board meeting
- Met conditions on 14th January 2002
  - Letter of assurance received
- Published in IEEE Std. 802.3-2002 on 8th March 2002
  - New revision
  - 5 Year approval period reset

# Plans for the week

- Maintenance committee meeting this week
  - Review status of existing revision requests
  - Classify new revision requests
- IEEE P802.3aj Maintenance #7 Corrigendum
  - PAR currently awaiting approval
  - Review Requests to be placed in ballot package



# Maintenance Web Information

- The Maintenance web site is at:

**<http://www.ieee802.org/3/maint/index.html>**

- The Maintenance request form is available at:

**[http://www.ieee802.org/3/private/maint/revision\\_request.html](http://www.ieee802.org/3/private/maint/revision_request.html)**

Username: **802.3**

Password: **\*\*\*\*\***

Password **is** case sensitive

# IEEE P802.3 Maintenance

March 14th, 2001

St Louis, MO

David Law

# Maintenance Requests Status

- 94 Maintenance requests
- Review and categorised all received request
- Current status -

Ready for ballot	11
Awaiting clarification	6
Errata	2
To be categorised	0
Review by Technical experts	2
Withdrawn	3
Published	70

# Plans for Completion

- Plans for Completion
  - Pre-submit IEEE P802.3aj Ballot Package prior to July Plenary meeting
  - Request approval for Working Group ballot in July

# Maintenance Web Information

- The Maintenance web site is at:

**<http://www.ieee802.org/3/maint/index.html>**

- The Maintenance request form is available at:

**[http://www.ieee802.org/3/private/maint/revision\\_request.html](http://www.ieee802.org/3/private/maint/revision_request.html)**

Username: \*\*\*\*\*

Password: \*\*\*\*\*

Password **is** case sensitive

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# **IEEE 802.3ah**

# **Ethernet in the First Mile**

# **Task Force**

## **Interim meeting report**

Hyatt Regency Hotel, St. Louis, MO

11-March-2002



**Ethernet in the First Mile**  
**IEEE 802.3ah Task Force**



# Reflector and web

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- To subscribe to our reflector(s), send email to:

**majordomo@ieee.org**

and include one or more of the following  
in the *body of the message*:

**subscribe stds-802-3-efm** <your email address>

**subscribe stds-802-3-efm-copper** <your email address>

**subscribe stds-802-3-efm-p2mp** <your email address>

**subscribe stds-802-3-efm-p2p** <your email address>

**subscribe stds-802-3-efm-oam** <your email address>

- Our WWW site is located at:

<http://www.ieee802.org/3/efm>



**Ethernet in the First Mile  
IEEE 802.3ah Task Force**



# Elected Officers

---

- Howard Frazier - Task Force Chair
- Gerry Pesavento - P2MP Chair
- Hugh Barrass - Copper Chair
- Vipul Bhatt - Optical PMD Chair
- Behrooz Rezvani - Copper Editor
- Wael Diab - Optical PMD Editor
- Ariel Maislos - Editor P2MP sub task force
- Matt Squire - Chair OAM sub task force

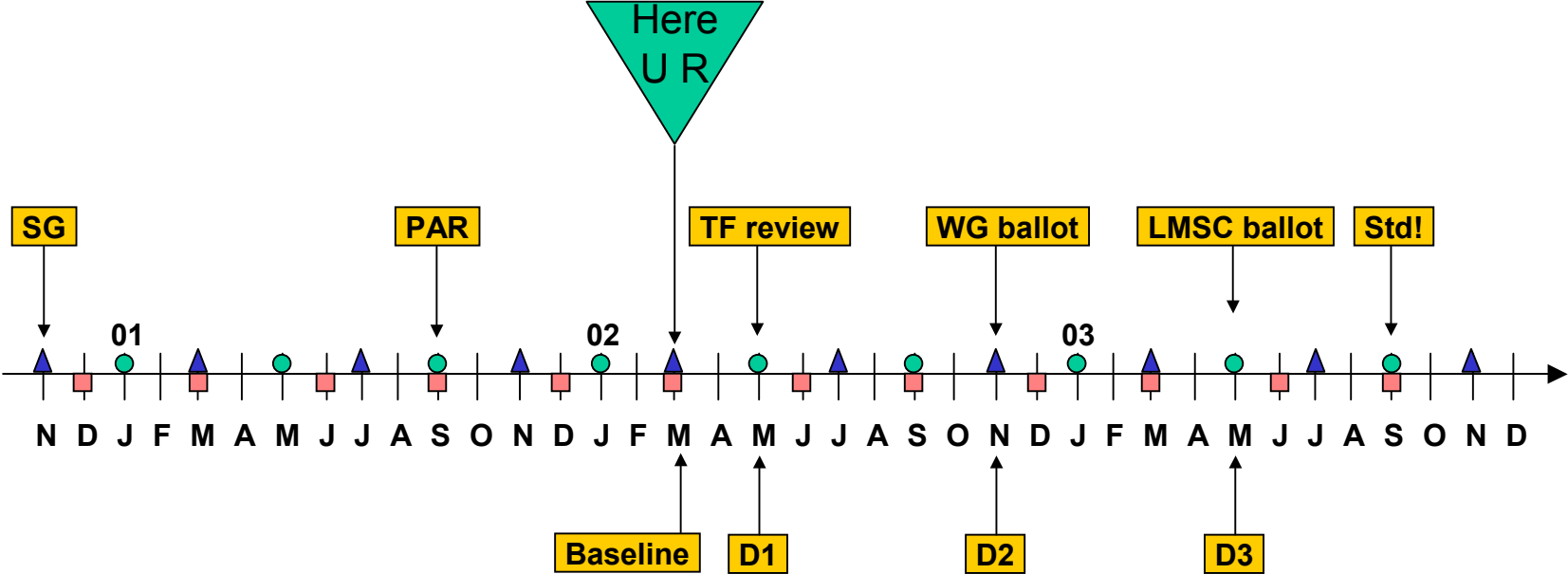


# Interim Meeting

---

- 3 day meeting - Jan 14-16, 2002
- Sheraton Hotel, Raleigh, NC
  - Hosted by AMCC
- ~130 attendees
- 40 technical presentations covering
  - OAM, P2P Fibre, EPON, P2P Copper
- Considerable time spent on copper objectives

# Adopted Timeline



- ▲ 802 Plenary
- 802.3 Interim
- IEEE-SA Standards Board



Ethernet in the First Mile  
IEEE 802.3ah Task Force



# Task Force Objectives (1/2)

---

- **Support subscriber access network topologies:**
  - Point to multipoint on optical fiber
  - Point to point on optical fiber
  - Point to point on copper
- **Provide a family of physical layer specifications:**
  - 1000BASE-LX extended temperature range optics
  - 1000BASE-X  $\geq$  10km over single SM fiber
  - PHY for PON,  $\geq$  10km, 1000Mbps, **single** SM fiber,  $\geq$  1:16
  - PHY for single pair non-loaded voice grade copper distance  $\geq$  750m and speed  $\geq$  10Mbps **full-duplex**
- **Optical EFM Phys to have a BER better than or equal to  $10^{-12}$  at the Phy service interface**

# Task Force Objectives (2/2)

---

- **Include an optional specification for combined operation on multiple copper pairs**
- **Support far-end OAM for subscriber access networks:**
  - Remote Failure Indication
  - Remote Loopback
  - Link Monitoring
- **The point-to-point copper PHY shall recognize spectrum management restrictions imposed by operation in public access networks, including:**
  - Recommendations from NRIC-V (USA)
  - ANSI T1.417-2001 (for frequencies up to 1.1MHz)
  - Frequency plans approved by ITU-T SG15/Q4, T1E1.4 and ETSI/TM6

# Objectives for this meeting

---

- **Review and adopt baseline proposals**



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**IEEE 802.3ah**  
**Ethernet in the First Mile**  
**Task Force**  
Interim meeting report

Hyatt Regency Hotel, St. Louis, MO

14-March-2002



**Ethernet in the First Mile**  
**IEEE 802.3ah Task Force**

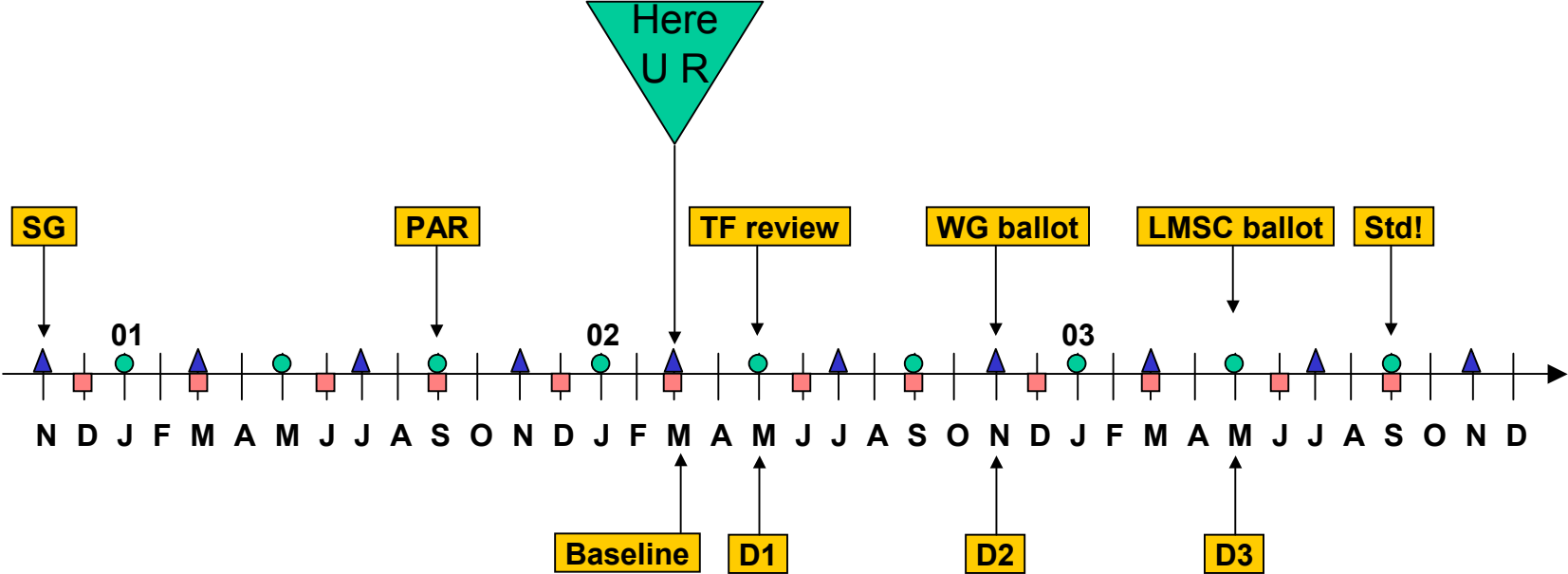


# Elected Officers

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- Vipul Bhatt - Optical PMD Chair
- Behrooz Rezvani - Copper Editor
- Wael Diab - Optical PMD Editor
- Ariel Maislos - Editor P2MP sub task force
- Matt Squire - Chair OAM sub task force
- Kevin Daines - Editor OAM sub task force

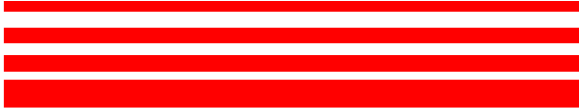
# Adopted Timeline



- ▲ 802 Plenary
- 802.3 Interim
- IEEE-SA Standards Board



Ethernet in the First Mile  
IEEE 802.3ah Task Force





# 802.3 motion

- Affirm the BER objective of the 802.3ah Task Force
  - **Optical EFM Phys to have a BER better than or equal to  $10^{-12}$  at the Phy service interface**
  - M: Howard Frazier (on behalf of 802.3ah)
- Y: 63, N: 3, A: 13

# 802.3ah motion #1

- Add an objective to the family of physical layer specifications:
- 100BASE-X  $\geq$  10 km over SM Fiber
- M: Bruce Tolley
- S: Sterling Rooke
- All Y:105 N: 4 A:22
- .3 Y:59 N: 3 A: 9
- Motion Passed

# 802.3ah motion #2

---

- Add an objective to the family of physical layer specifications:
- 100BASE-X Extended temperature optics
  - M: Chris DiMinico
  - S: Lisa Peng
  - All Y:32 N: 30 A: 72
  - .3 Y:16 N:21 A:30
  - Motion Failed

# 802.3ah motion #3

- Add an objective to the family of physical layer specifications:
- PHY for PON,  $\geq 20$  km, 1000 Mbps, single SM Fiber,  $\geq 1:16$
- M: Brian Ford
- S: Richard Brand
- All Y:117 N: 1 A: 16
- .3ah Y:64 N:1 A:5
- Motion Passed

# 802.3 motion

- Affirm two additional objectives for the 802.3ah EFM Task Force
  - 100BASE-X  $\geq$  10 km over SM Fiber
  - PHY for PON,  $\geq$  20 km, 1000 Mbps, single SM Fiber,  $\geq$ 1:16
- M: Howard Frazier (on behalf of 802.3ah)
- Y: 86, N: 2, A: 8

# 802.3ah motion #4

---

- The copper objective be restated as follows:
- “specify a generic xDSL adaptation layer between the IEEE 802.3ah Media Interface and PTM (packet transfer mode) specific gamma interface as defined in ITU-T Recommendation G.993.1 Annex H”
- The baseline recommendations agreed by the IEEE 802.3ah copper sub-task force to date be declared null and void by the assembly of IEEE 802.3ah
- The next meeting of IEEE 802.3ah copper sub-task force address presentations towards expediting this new objective
- M: Ed Eckert
- S: George Eisler
- All Y:51 N: 32 A: 68
- .3 Y:27 N:24 A:33
- Motion Failed

# 802.3ah motion #5

---

- Adopt suzuki\_2\_0302.pdf and gentry\_1\_0302.pdf as a framework for EFM OAM, where the functionality is partitioned as:
- Use OAM in frames for following functions:
  - Performance monitoring
  - Asynchronous event reporting
  - Remote status
  - Extensible management control channel
- Use OAM in preamble for
  - Fault detection (ping)
  - Fault signalling (remote/local failure bits)
  - Alarm bit
- OAM for EFM Cu are not addressed by this motion
- M: Matt Squire on behalf of the OAM Sub-Task Force
- All - Y:69 N:22 A:45
- 802.3 voters Y: 39 N: 16 A: 26
- Motion fails

# 802.3ah motion #6

- Adopt the proposals shown [below] as baseline for the EFM P2MP
- MPCP: General Description [maislos\_1\_0312.pdf]
- MPCP: Architecture [sala\_1\_0302.pdf] minus slides 17, 18  
change to “assignment of PHY\_Ids if needed” on page 4.
- MPCP: Timing [haran\_1\_0302.pdf], add bullet “Complete frames shall be transmitted in a given Grant (no fragmentation)” on page 13; remove “No Transmission” on page 10
- MPCP: Auto Discovery [gaglianella\_1\_0302.pdf] minus slide 16, revise slide 11 with graph as presented during sub task force meeting
- MPCP: Message Format [hirth\_1\_0302.pdf] Change “802.1Q” to “802.1D:1998” on slide 9, add bullet “All PMD negotiation parameters are pending on PMD specifications”, add bullet “the PHY ID negotiation parameters are pending on ONU identification”
  
- M: Gerry Pesavento on behalf of the P2MP sub-task force
- All: Y:89 N: 1 A: 21
- 802.3 voters Y: 48 N: 1 A: 9



# 802.3ah motion #7

- Adopt page 1-12 of suzuki\_1\_0302.pdf as P2MP baseline document for 802.1D compliance and downstream broadcast with the replacement of line 5 (P2P) of page 11 with **Downstream: ONU receive frames with PHY tag = its own** With the replacement of line 10 (Broadcast) page 11 with **Downstream: ONU receive frames with PHY tag != its own** with the deletion of page 4 & 5
- M: Hiroshi Suzuki
- S: Dolors Sala
- All: Y:85 N: 0 A: 31
- 802.3 voters Y: 46 N: 0 A: 16

# 802.3 motion

- Affirm P2MP baseline proposal motions from the 802.3ah EFM Task Force
- M: Howard Frazier (on behalf of 802.3ah)
- Y: 75, N: 2, A: 5

# Motion #1 (EFM optics)

- The basis for the first draft of the 802.3ah 1000Base-LX extended temperature objective be met with text that uses 1000Base-LX 5km single mode specification (clause 38) as the starting point with the following changes and additions:
  - Informative temperature range  $-40 - +85$  deg C
  - 10km link length
  - Wavelength range = 1260 – 1360 nm
  - Use EFM link budget spreadsheet (v3.1.16) to create triple tradeoff curve for spectral width vs. wavelength vs. OMA
  - Conversion to OMA spec methodology
  - Tx output power (min): -9.5 dBm (ER=9)
  - Rx input (min): -20 dBm (ER=9)

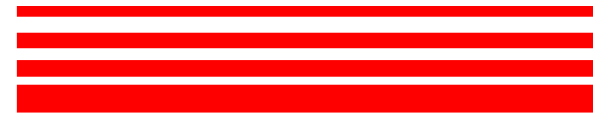
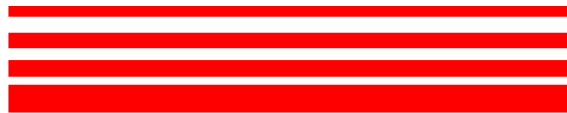
## Motion #2c (EFM optics)

- The 802.3ah optics sub-task force accepts moving forward with the 2 sets of PON PMDs (4 PMDs) as the baseline proposal for the PON PMD objective, as described by Frank Effenberger's presentation (effenberger\_1\_0302).



# Motion #5 (EFM Optics)

- For the 802.3ah 100BASE-X over single mode fiber objective, at least one PMD should be defined for dual fiber and at least one for single fiber



# Motion #6 (EFM Optics)

- The 802.3ah Optics-Sub task force accepts the letter in response to the TIA communication, as drafted and presented by Chris DiMinico



# Motion 8

- 802.3 ah Accept the motions and work of the optics sub task force, including the liaison response to SG-15.
- All Y: 105 N: 0 A: 11
- .3 Y: 61 N: 0 A: 6
- Moved: Vipul Bhatt
- Second: Wael William Diab
- Motion Passes

# 802.3 motion

- Affirm optical PMD baseline proposal motions from the 802.3ah EFM Task Force, including the need for one 100 Mbps dual fiber and **at least** either one single wavelength or a pair of dual wavelength 100 Mbps single fiber PMDs.
- M: Howard Frazier (on behalf of 802.3ah)
- Y: N: A:



# Motion #9

---

- Create an informative annex to address environmental considerations
- M: Chris DiMinico
- S: Alan Flatman
- All Y: 59 N: 1 A: 40
- 802.3 voters Y: 40 N:1 A:17

# 802.3 motion

- Affirm creation of an informative annex on environmental considerations
- M: Howard Frazier (on behalf of 802.3ah)
- Y: 58, N: 5, A: 5

# Motion #10

---

- Adopt presentations  
fosmark\_1\_0302.pdf,  
marris\_1\_0302.pdf, simon\_1\_0302.pdf  
as the basis of the first draft
- M: Hugh Barrass on behalf of Copper STF

All: Y:94 N:0 A:33

802.3 voters Y: 46 N: 0 A: 18

# Motion #11

---

- Adopt presentation rezvani\_1\_0302.pdf (with addition of comments document “notes\_to\_editor\_1\_0302.doc” with the exception of note 13) as the basis of the first draft
- M: Hugh Barrass on behalf of Copper STF

All: Y:43 N:37 A:47

802.3 voters Y: 24 N: 21 A: 28

# Task Force Objectives (1/2)

---

- **Support subscriber access network topologies:**
  - Point to multipoint on optical fiber
  - Point to point on optical fiber
  - Point to point on copper
- **Provide a family of physical layer specifications:**
  - 1000BASE-LX extended temperature range optics
  - 1000BASE-X  $\geq$  10km over single SM fiber
  - 100BASE-X  $\geq$  10km over SM fiber
  - PHY for PON,  $\geq$  10km, 1000Mbps, single SM fiber,  $\geq$  1:16
  - PHY for PON,  $\geq$  20km, 1000Mbps, single SM fiber,  $\geq$  1:16
  - PHY for single pair non-loaded voice grade copper distance  $\geq$  750m and speed  $\geq$  10Mbps full-duplex
- **Optical EFM Phys to have a BER better than or equal to  $10^{-12}$  at the Phy service interface**

# Task Force Objectives (2/2)

---

- **Include an optional specification for combined operation on multiple copper pairs**
- **Support far-end OAM for subscriber access networks:**
  - Remote Failure Indication
  - Remote Loopback
  - Link Monitoring
- **The point-to-point copper PHY shall recognize spectrum management restrictions imposed by operation in public access networks, including:**
  - Recommendations from NRIC-V (USA)
  - ANSI T1.417-2001 (for frequencies up to 1.1MHz)
  - Frequency plans approved by ITU-T SG15/Q4, T1E1.4 and ETSI/TM6

# Liaison Letters

---

- **Adopt the liaison response letters to:**
  - ITU-T SG 15
  - ITU-T SG 13
  - M: Howard Frazier on behalf of 802.3ah (unanimous)
  - Y:     N:     A:
  
- **Adopt the liaison response letters to:**
  - T1E1.4
  
- **With an appropriately edited copy to ITU-T SG15/4**
  - M: Howard Frazier
  - S: Michael Beck
  - Y:     N:     A:

Attachment is not yet available for web posting.