

IEEE 802.3az

Energy Efficient Ethernet

Opening Plenary Report

San Francisco, CA
July 13, 2009

Mike Bennett
mjbennett@ieee.org

IEEE 802.3az EEE Contacts

- Task Force Chair

- Mike Bennett (mjbennett@ieee.org)

- Web Master

- Bruce Nordman (bnordman@lbl.gov)

- Editor-in-Chief

- Sanjay Kasturia (kasturia@teranetics.com)

Reflector and Web

- To subscribe to the EEE TF reflector, send your request to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

*subscribe stds-802-3-eee <yourfirstname> <yourlastname>
end*

- Send reflector messages to:

[*stds-802-3-eee@listserv.ieee.org*](mailto:stds-802-3-eee@listserv.ieee.org)

- For complete instructions on reflector usage, subscription, and unsubscription:

<http://www.ieee802.org/3/az/reflector.html>

- Task Force web page URL:

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

Reflector and Web

- Our latest draft is D1.5
- Task Force *private* web page URL:

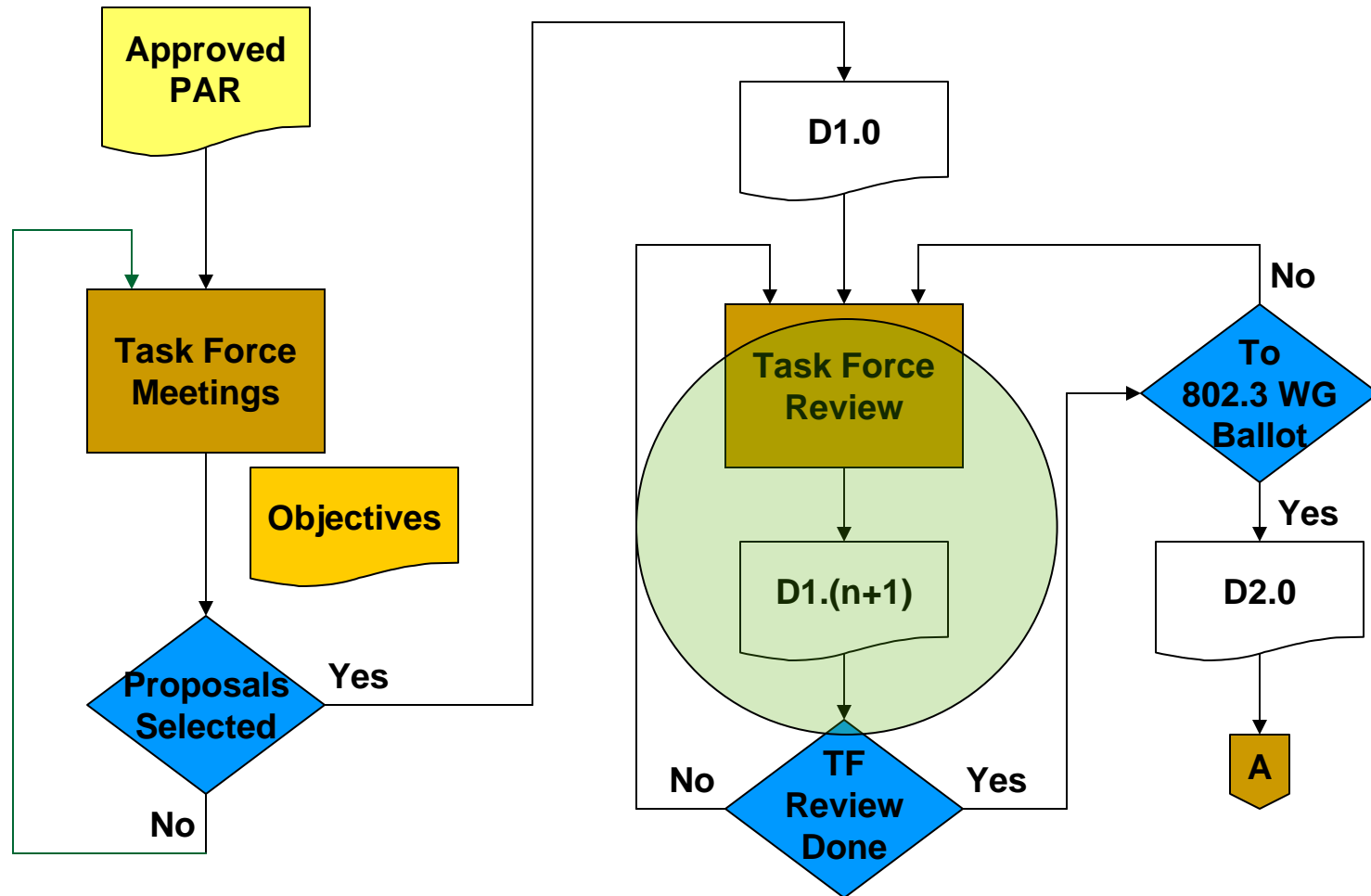
<http://www.ieee802.org/3/az/private/index.html>

Login: 802.3az

Password: xxxxx

Overview of IEEE 802.3 Standards Process (2/5)

Task Force Meeting Phase



802.3az Task Force Report

- Interim meeting
- April 29-May 1, 2009 – Quebec City
 - Fairmont Le Château Frontenac
 - Hosted by Tyco
 - Thanks!
 - Attendance: ~15 people
- Presentations
 - L2 Ad-hoc report – Wael Diab
 - Fall-back proposal – Anoop Vetteth
 - 802.3ba architecture and overview – David Law
 - Wake time shrinkage Ad-hoc report – David Law

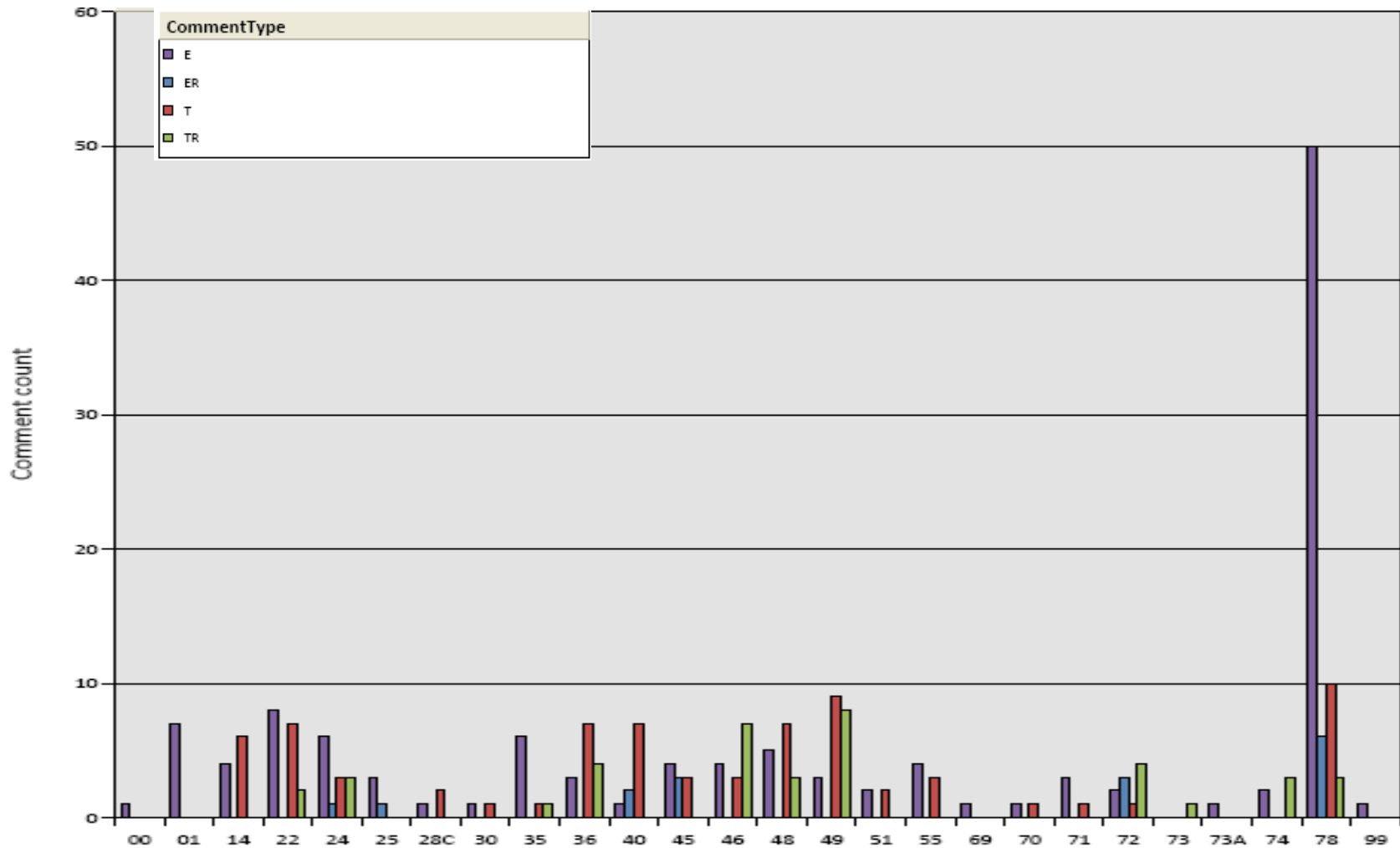
802.3az Task Force Report

■ Comments on D1.3

- 259 comments received
 - 110 technical
 - 149 editorial
- All resolved

802.3az Task Force Report

■ Comment stats on D1.3



802.3az Task Force Report

■ Motions from the Interim

Motion #02 - Layer 2 ad-hoc recommendations
IEEE P802.3az Task Force adopt the consensus recommendations and proposal to trigger the Layer 2 as captured in ad-hoc report, diab_01_0409.pdf pages 6, 7 and 8. Editorial team to incorporate changes into D1.4.

Moved by: W. Diab

Second by: A. Vetteth

All Y:12 N:0 A:2 Technical; $\geq 75\%$ required to pass

Motion passed

802.3az Task Force Report

■ Motions from the Interim

Motion #03 - Fallback proposal

IEEE P802.3az Task Force adopt the fallback states proposal as captured in diab_vetteth_01_0409.pdf pages 2 and 5; and the changes to section 78.4 as shown in diab_vetteth_01_0409.fm. Editorial team to incorporate changes into D1.4.

Moved by: A. Vetteth

Second by: W. Diab

All Y:14 N:0 A:1 Technical; $\geq 75\%$ required to pass

Motion passed

802.3az Task Force Report

■ Motions from the Interim

Motion #04 Grant the editors license to resolve all of the remaining unresolved editorial comments.

Moved by: H. Barrass

Second by: M. Traeber

All Y:10 N:0 A:0 Technical; $\geq 75\%$ required to pass

Motion passed

802.3az Task Force Report

■ Motions from the Interim

Motion #5 Direct the editors to edit the PICS to reflect normative text in all clauses.

Moved by: S. Kasturia

Second by: M. Traeber

All Y:7 N:0 A:0 Technical; $\geq 75\%$ required to pass

Motion passed

802.3az Task Force Report

■ Motions from the Interim

Motion #6 Move that draft 1.3 plus the resolution of comments as recorded in 8023azD1p3.pdf and motions on draft 1.3 be used as the basis for the generation of draft 1.4 of 802.3az

Moved by: H. Barrass

Second by: V. Pillai

All Y:10 N:0 A:0 Technical; $\geq 75\%$ required to pass

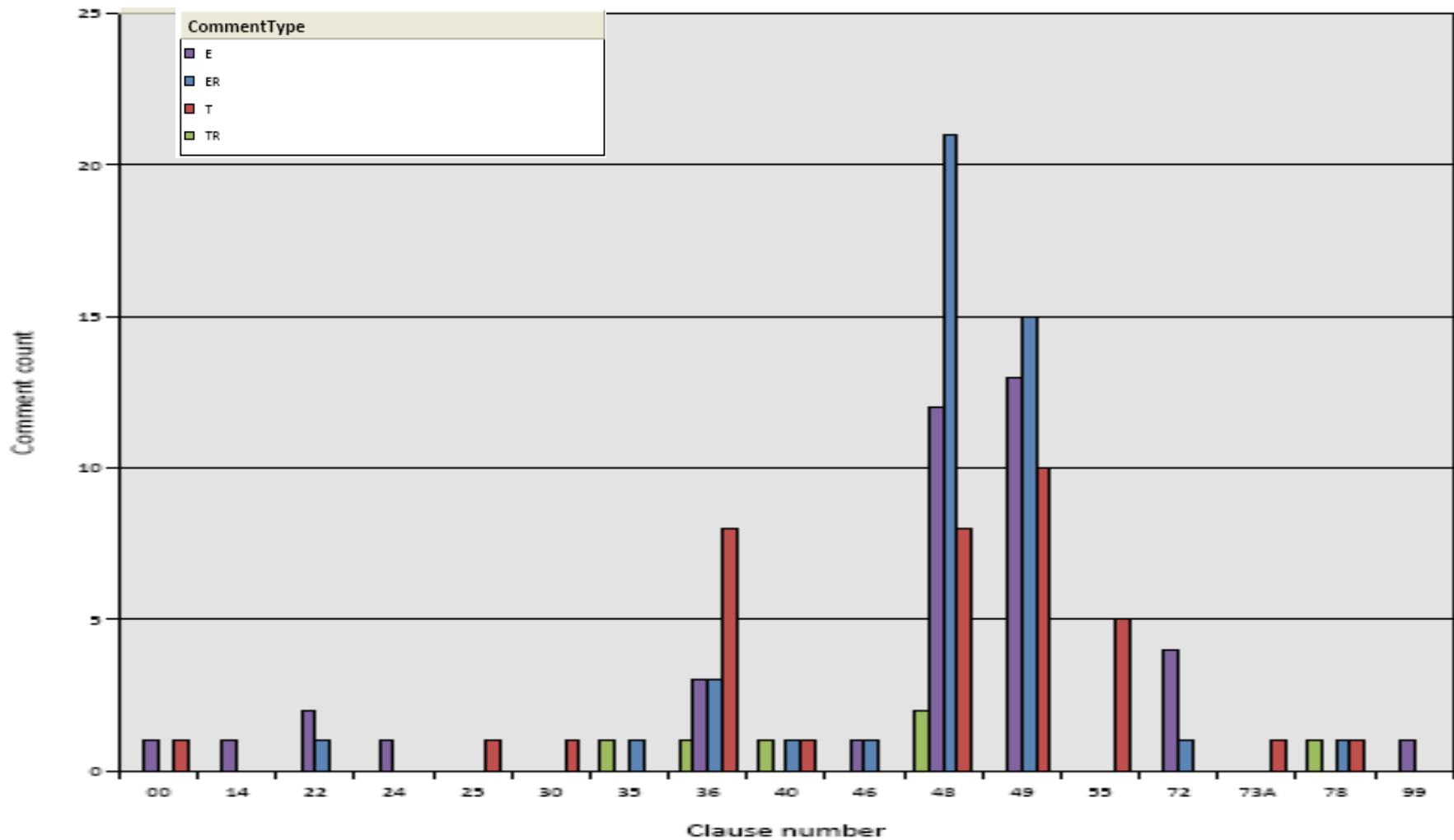
Motion passed

802.3az Task Force Report

- Interim meeting
- June 11, 2009 – Berkeley, CA
 - Hosted by Lawrence Berkeley National Lab
 - Local attendance: 8
 - Remote attendance: 16
- Comments on D1.4
 - 124 comments received
 - Technical: 79
 - Editorial: 45
 - All resolved

802.3az Task Force Report

■ Comment stats on D1.4



802.3az Task Force Report

■ Motions from the Interim

Motion #2 Move that draft 1.4 plus the resolution of comments recorded in 8023azd1p4responses.pdf be used as the basis for generation of Draft 1.5. Request the 802.3 Working Group Chair pre-submit Draft 1.5 for preview in anticipation of the request to go to Working Group Ballot.

Moved by: W. Diab

Second by: G. Thompson

Yes: 7

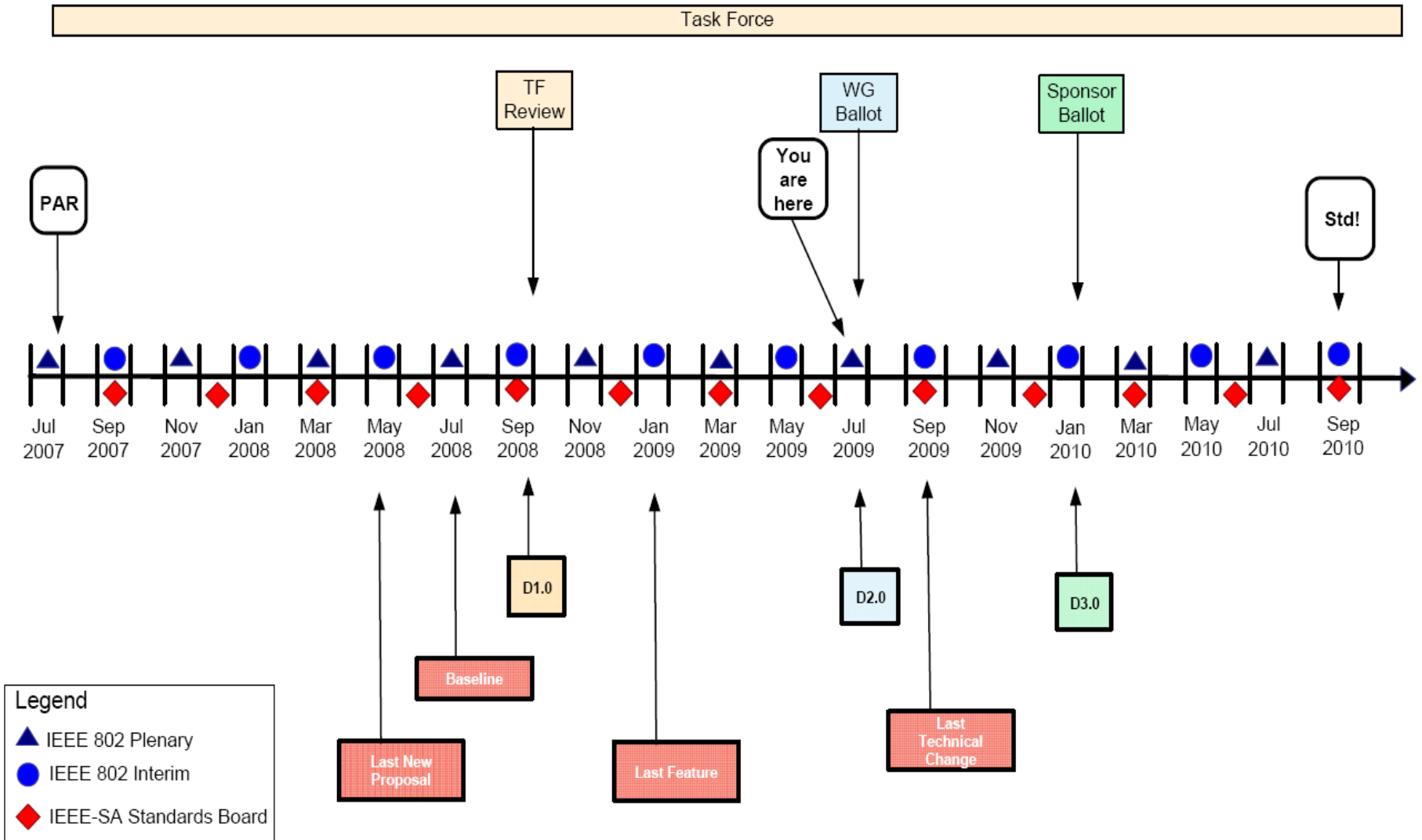
No:0

Abstain:0

Goals for this Meeting

- Process comments
- Answer questions
- Entertain discussion
- Generate a new draft and present changes to the 802.3 Working Group
- Ask the Working Group to allow 802.3az to go to Working Group Ballot

802.3az timeline



Objectives

Define a mechanism to reduce power consumption during periods of low link utilization for the following PHYs

- 100BASE-TX (Full Duplex)**
- 1000BASE-T (Full Duplex)**
- 10GBASE-T**
- 1000BASE-KX**
- 10GBASE-KR**
- 10GBASE-KX4**

- Define a protocol to coordinate transitions to or from a lower level of power consumption**
- The link status should not change as a result of the transition**
- No frames in transit shall be dropped or corrupted during the transition to and from the lower level of power consumption**
- The transition time to and from the lower level of power consumption should be transparent to upper layer protocols and applications**

Objectives

- **Define a 10 megabit PHY with a reduced transmit amplitude requirement such that it shall be fully interoperable with legacy 10BASE-T PHYs over 100 m of Class D (Category 5) or better cabling to enable reduced power implementations.**
- **Any new twisted-pair and/or backplane PHY for EEE shall include legacy compatible auto negotiation**

Thank You!