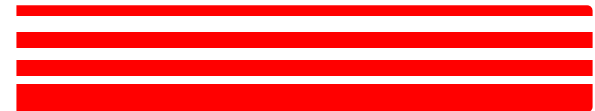# IEEE 802.3ah
Ethernet in the First Mile
Task Force

Agenda and General Information

Sheraton Hotel, Raleigh, NC

14-January-2002

Ethernet in the First Mile
IEEE 802.3ah Task Force

Agenda

- **Welcome and introductions**
- **Objectives for this meeting**
- **Reflector and WWW site**
- **Ground rules**
- **IEEE standards process**
- **Review PAR & Objectives**
- **Liaison letter(s)**
- **Discussion of Copper Objectives**
- **Presentations**
  - **General**
  - **Split into tracks**
    - **EPON**
    - **Cu**
    - **P2P**
    - **OAM**
- **Motion madness**
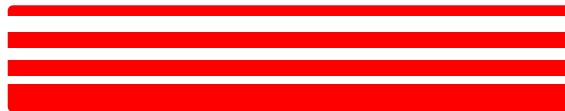 - **Minutes of previous meeting**
- **Next steps**

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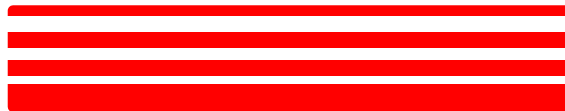**IEEE 802.3ah Task Force**

802.3ah Officers

- **Howard Frazier, 802.3ah Chair,** *millardo@dominetsystems.com*

- **Gerry Pesavento, P2MP Chair,** *gerry.pesavento@alloptic.com*

- **Hugh Barrass, Copper Chair,** *hbarrass@cisco.com*

- **Vipul Bhatt, Optics Chair,** *vipul_bhatt@ieee.org*

- **Matt Squire, OAM Chair,** *mattsquire@acm.org*

- **Ariel Maislos, P2MP Editor,** *ariel.maislos@passave.com*

- **Behrooz Rezvani, Copper Editor,** *behrooz@ikanos.com*

- **Wael Diab, Optics Editor,** *wdiab@cisco.com*

Ethernet in the First Mile
IEEE 802.3ah Task Force

Objectives for this meeting

- **Develop and Review "Baseline" Proposals**

- **Refine project objectives**

Ethernet in the First Mile
IEEE 802.3ah Task Force

Reflector and web

- 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>
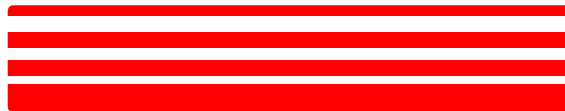 **subscribe stds-802-3-efm-p2mp** <your email address>
  subscribe stds-802-3-efm-p2p <your email address>
  subscribe stds-802-3-efm-oam <your email address>

- Our web site is located at:

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

Ethernet in the First Mile
IEEE 802.3ah Task Force

Ground rules

- Any one in the room may speak (when recognized by the chair)
- Any one in the room may vote
- R-E-S-P-E-C-T - give it, get it
- No product pitches, no corporate pitches
- No discussion of pricing or prices

Ethernet in the First Mile
IEEE 802.3ah Task Force

Ground rules

- ## The IEEE-SA's patent policy is set forth in clause 6 of the IEEE-SA Standards Board Bylaws:

  IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent becomes known after initial approval of the standard). This assurance shall be a letter that is in the form of either

  a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement the proposed IEEE standard against any person or entity using the patent(s) to comply with the standard or

  b) A statement that a license will be made available to all applicants without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination

Ethernet in the First Mile
IEEE 802.3ah Task Force
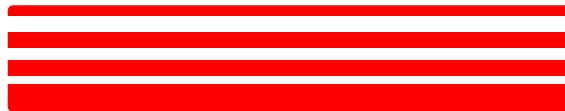
Ground rules

- **Operating rules of the IEEE 802.3 Working Group:**

    http://www.ieee802.org/3/rules/

- **Operating rules of the IEEE 802 LAN/MAN Standards Committee:**

    http://www.ieee802.org/rules.pdf

- **Bylaws of the IEEE Standards Association Standards Board:**

    http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf

- **Bylaws of the IEEE Standards Association:**

    http://standards.ieee.org/sa/sa-bylaws.pdf

(there will be a quiz at the end of the meeting)

Ethernet in the First Mile
IEEE 802.3ah Task Force
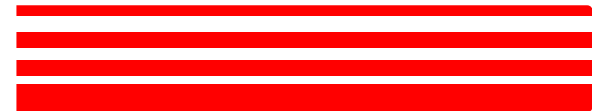
IEEE Standards Process

```
        Idea

         │
         ▼
     Call for
     Interest

         │
         ▼
      802.3          Yes
   Form a Study ──────────────┐
      Group                   │
         │                    │
         No                   ▼
         ▼               Study Group
        RIP              Meetings
                          │     │
                          ▼     ▼
                        PAR   5 Criteria

                              Objectives

                          │
                          ▼
                       802.3         Yes
                      Approval ──────────────┐
                          │                  │
                          No                 ▼
                          ▼              802 SEC        No
                         RIP             Approval ──────────► RIP
                                             │
                                            Yes
                                             ▼
                                          NesCom         No
                                          Approval ──────────► RIP
                                             │
                                            Yes
                                             ▼
                                           STB           Yes
                                          Approval ──────────► Approved
                                             │                 PAR
                                             No
                                             ▼
                                            RIP
```
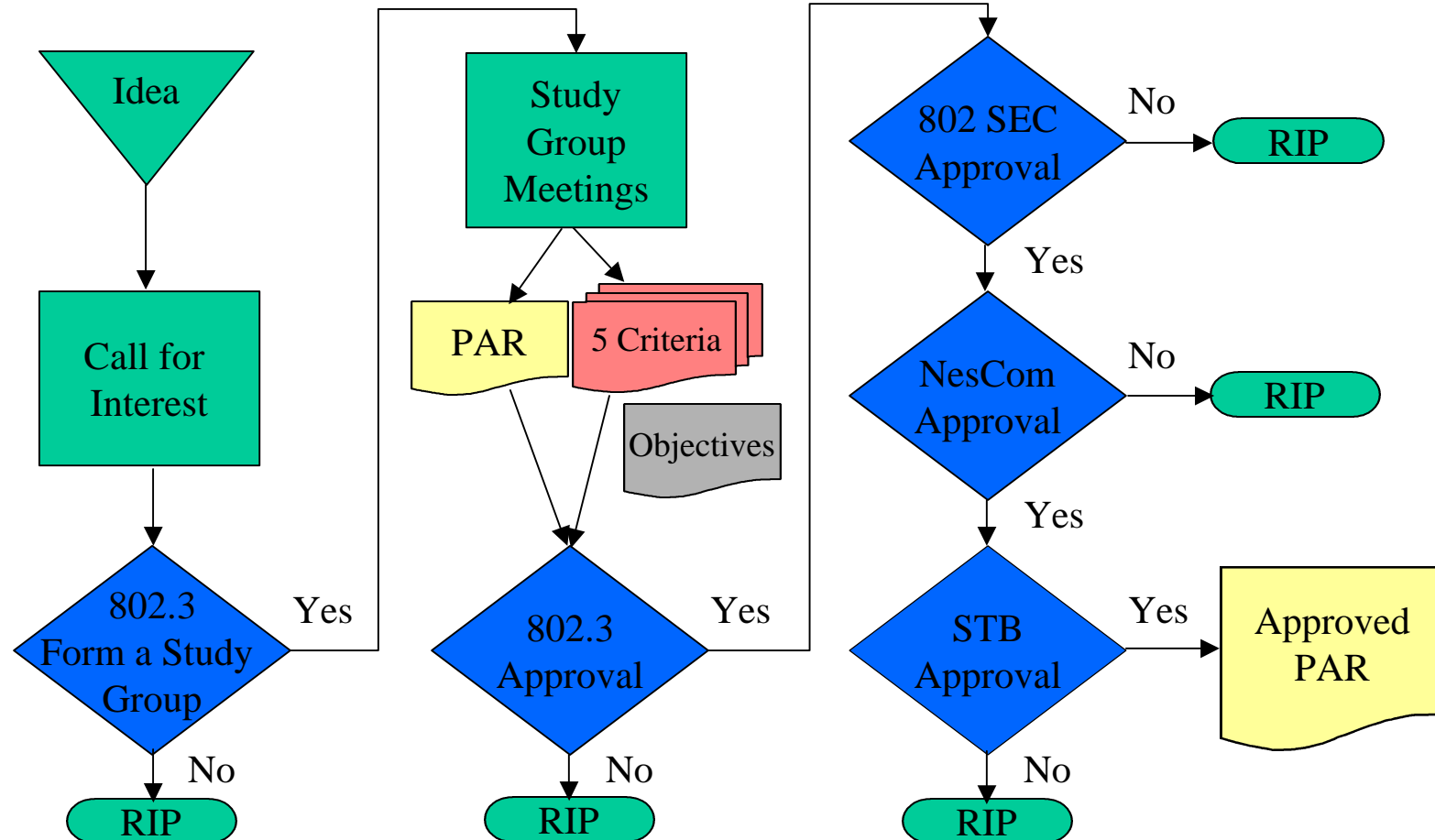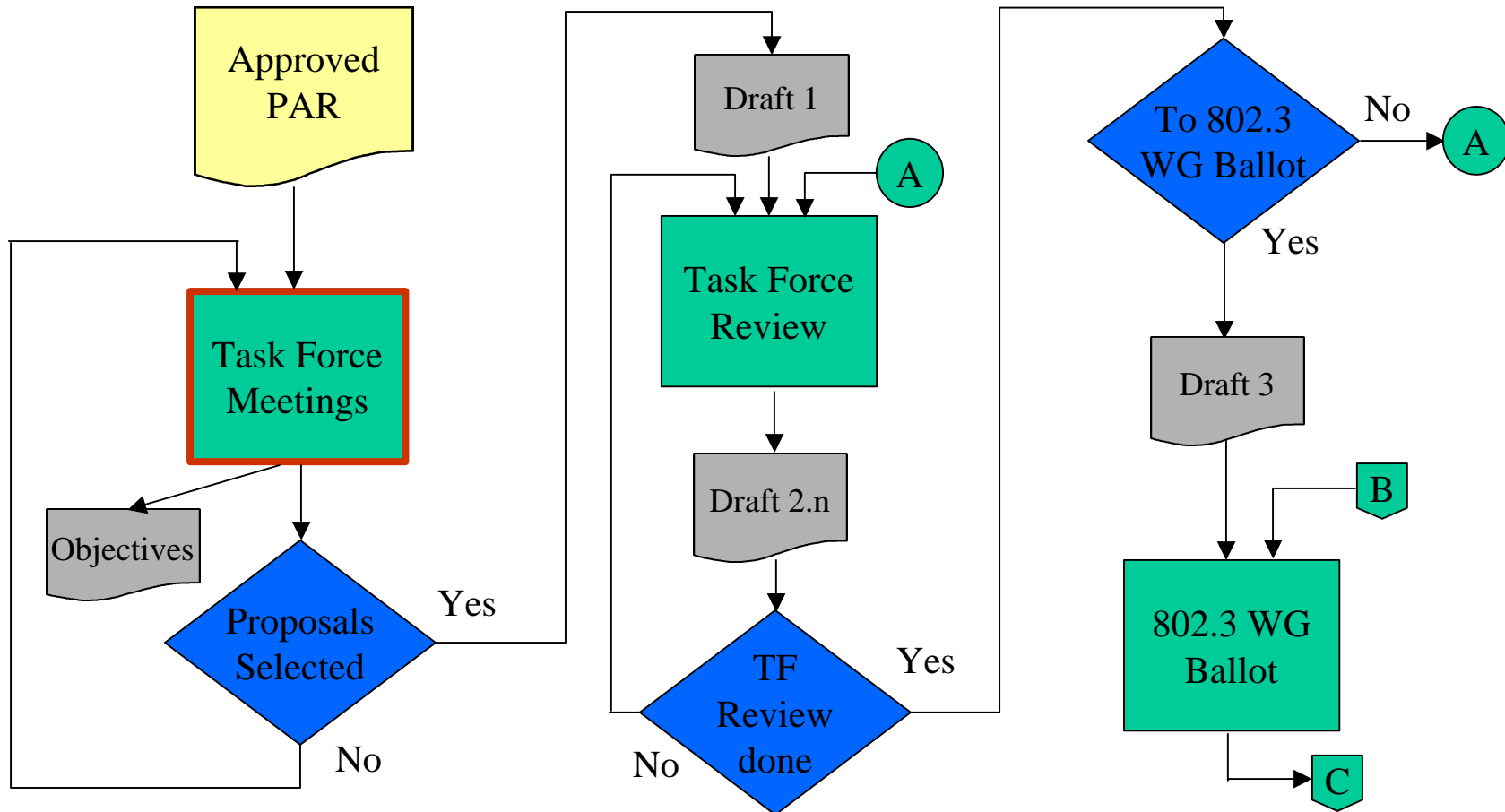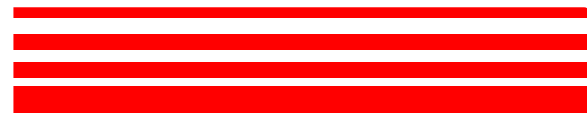
Ethernet in the First Mile
IEEE 802.3ah Task Force

IEEE Standards Process
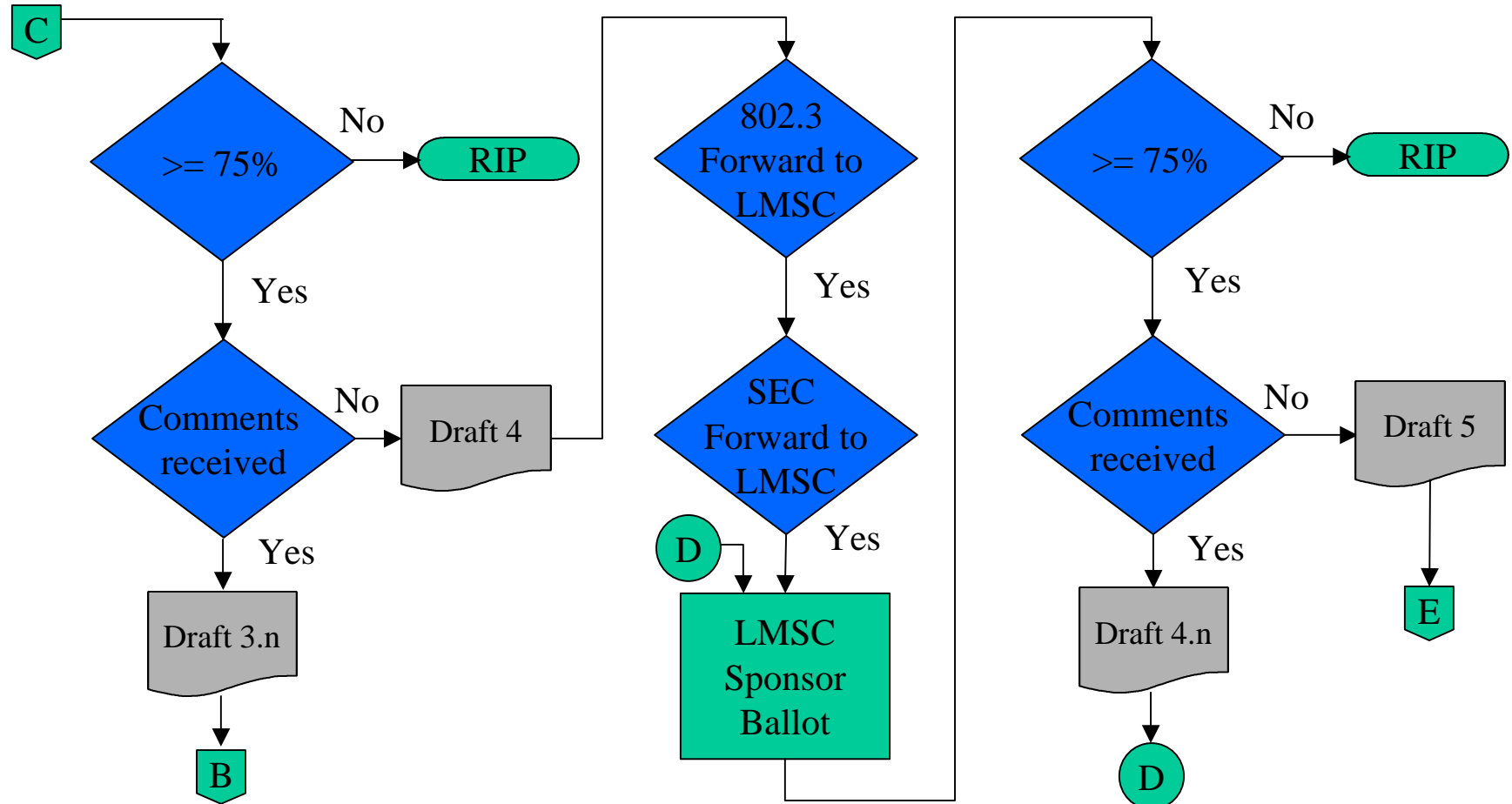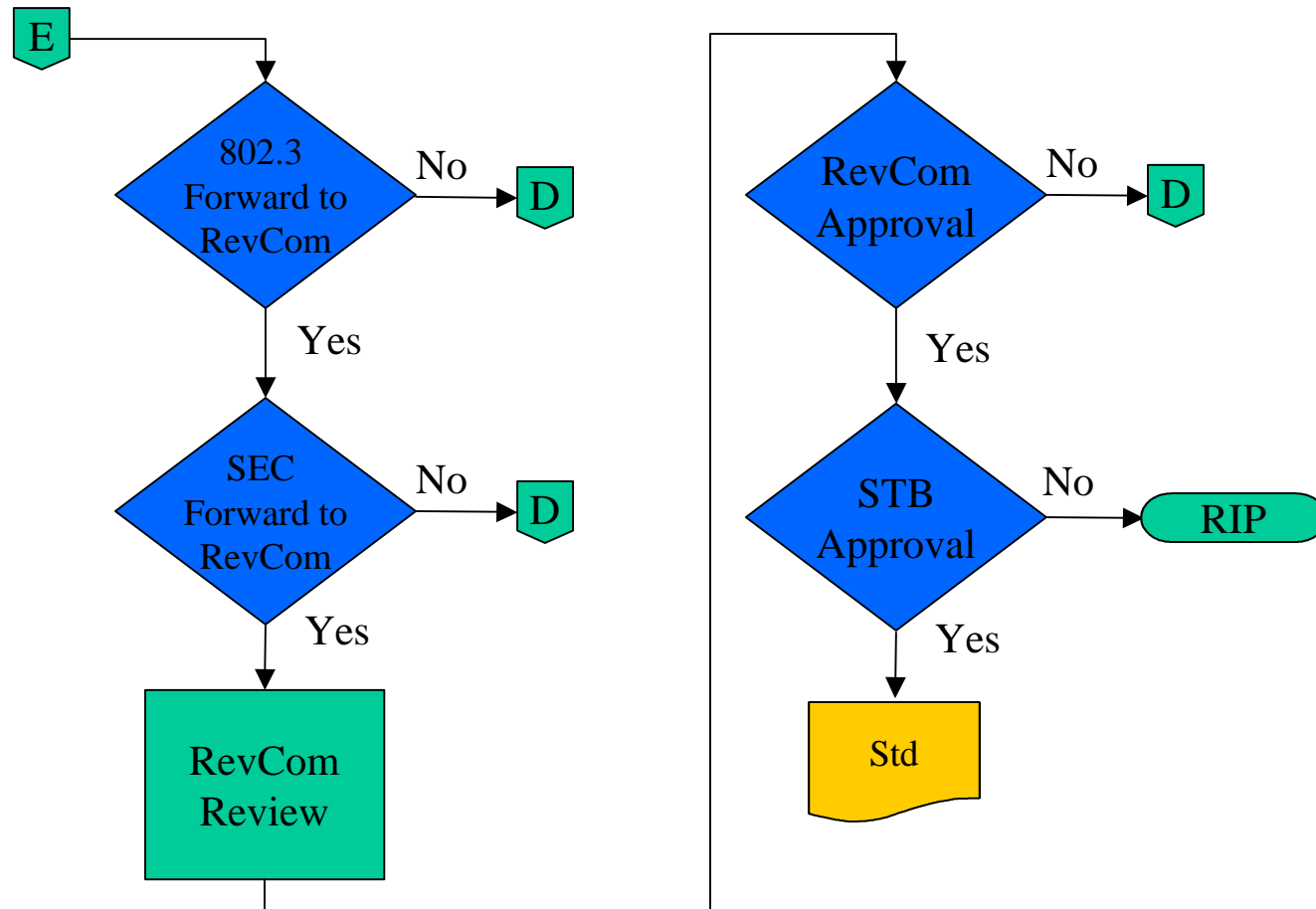

Ethernet in the First Mile
IEEE 802.3ah Task Force

IEEE Standards Process

C

>= 75% — No → RIP

Yes

Comments received — No → Draft 4

Yes

Draft 3.n

B

802.3 Forward to LMSC

Yes

SEC Forward to LMSC

D

Yes

LMSC Sponsor Ballot

>= 75% — No → RIP

Yes

Comments received — No → Draft 5

Yes

Draft 4.n

E

D

Ethernet in the First Mile
IEEE 802.3ah Task Force

IEEE Standards Process
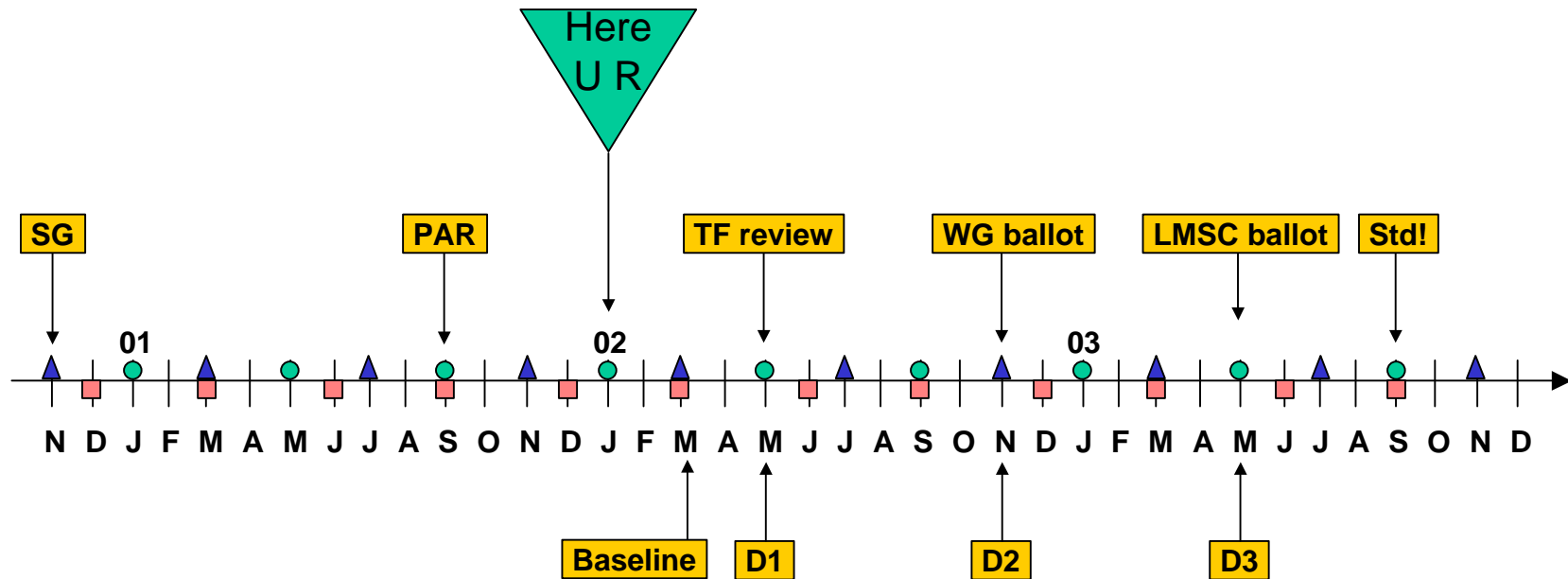

Ethernet in the First Mile
IEEE 802.3ah Task Force

Adopted Timeline

Here U R

SG   PAR   TF review   WG ballot   LMSC ballot   Std!

01   02   03

N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

Baseline   D1   D2   D3

▲ 802 Plenary

● 802.3 Interim

■ IEEE-SA Standards Board

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

Liaison Letters

- Liaison letters received from
  - ITU-T SG 15

Ethernet in the First Mile
IEEE 802.3ah Task Force

Plan for the week

	MON			TUE			WED		
8:30									
9:00									
9:30	**802.3ah EFM Task Force Opening Plenary**			**P2MP & Optics Sub Task Forces Joint Session**		**OAM Sub Task Force**	**Copper Sub Task Force**	**P2MP Sub Task Force**	**Optics Sub Task Force**	**Copper Sub Task Force**
10:00									
10:30									
11:00									
11:30									
12:00	Lunch			Lunch			Lunch		
12:30									
1:00									
1:30									
2:00	**P2MP Sub Task Force**	**Optics Sub Task Force**	**Copper Sub Task Force**	**P2MP & Optics Sub Task Forces Joint Session**		**OAM Sub Task Force**	**Copper Sub Task Force**	**802.3ah EFM Task Force Closing Plenary**	
2:30									
3:00									
3:30									
4:00									
4:30									
5:00	Dinner			Dinner			Dinner		
5:30									

Ethernet in the First Mile
IEEE 802.3ah Task Force

Copper Objectives

- At our last meeting in Austin, 802.3ah added three new objectives for copper:

  PHY for single pair non-loaded voice grade copper, distance >= 4600m, 0.4mm >= 256kbps

  PHY for single pair non-loaded voice grade copper, distance >= 3700m, 0.5mm >= 4mbps

  Include an optional specification for combined operation on multiple copper pairs

Ethernet in the First Mile
IEEE 802.3ah Task Force
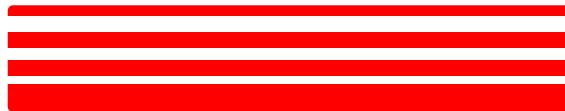
Copper Objectives

- During the closing plenary session of 802.3, serious concern was raised about the first of the new objectives, because the data rate was "outside the scope of the 802.3ah PAR"

- In the opinion of your chair, there is no chance of getting 802.3 to change our PAR to accommodate rates below 1 Mbps, and no chance of getting 802.3 to accept the objective without a change to the PAR

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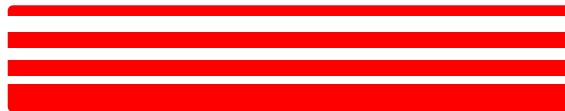**IEEE 802.3ah Task Force**

Copper Objectives

- Your chair took an action item to rewrite the copper objectives in order to:
    - A. Make them more concise and readable
    - B. Remove ambiguities
    - C. Give them a chance of being accepted in 802.3

- Submitted for your consideration:

Ethernet in the First Mile
IEEE 802.3ah Task Force

Copper Objectives

- A PHY specification for operation over a single pair of non-loaded .5 mm voice grade copper at all distances between 0 and 3700 meters.

- Support *n* discrete data rates between 1 and 50 Mbps per copper pair

- Include an optional specification for combined operation on multiple copper pairs

Ethernet in the First Mile
IEEE 802.3ah Task Force

Future meetings

- **11-14 Mar, 2002, St. Louis, MO - IEEE 802 Plenary meeting**

- 20-22 May, Edinburgh, UK - Hosted by Tality

- **8-11 Jul, 2002, Vancouver, BC - IEEE 802 Plenary meeting**

- *We need a host for a September, 2002 meeting!*

Ethernet in the First Mile
IEEE 802.3ah Task Force