IEEE P802.3ar
Congestion Management Task Force

Report to 802.3 CSMA/CD WG

Atlanta, Georgia
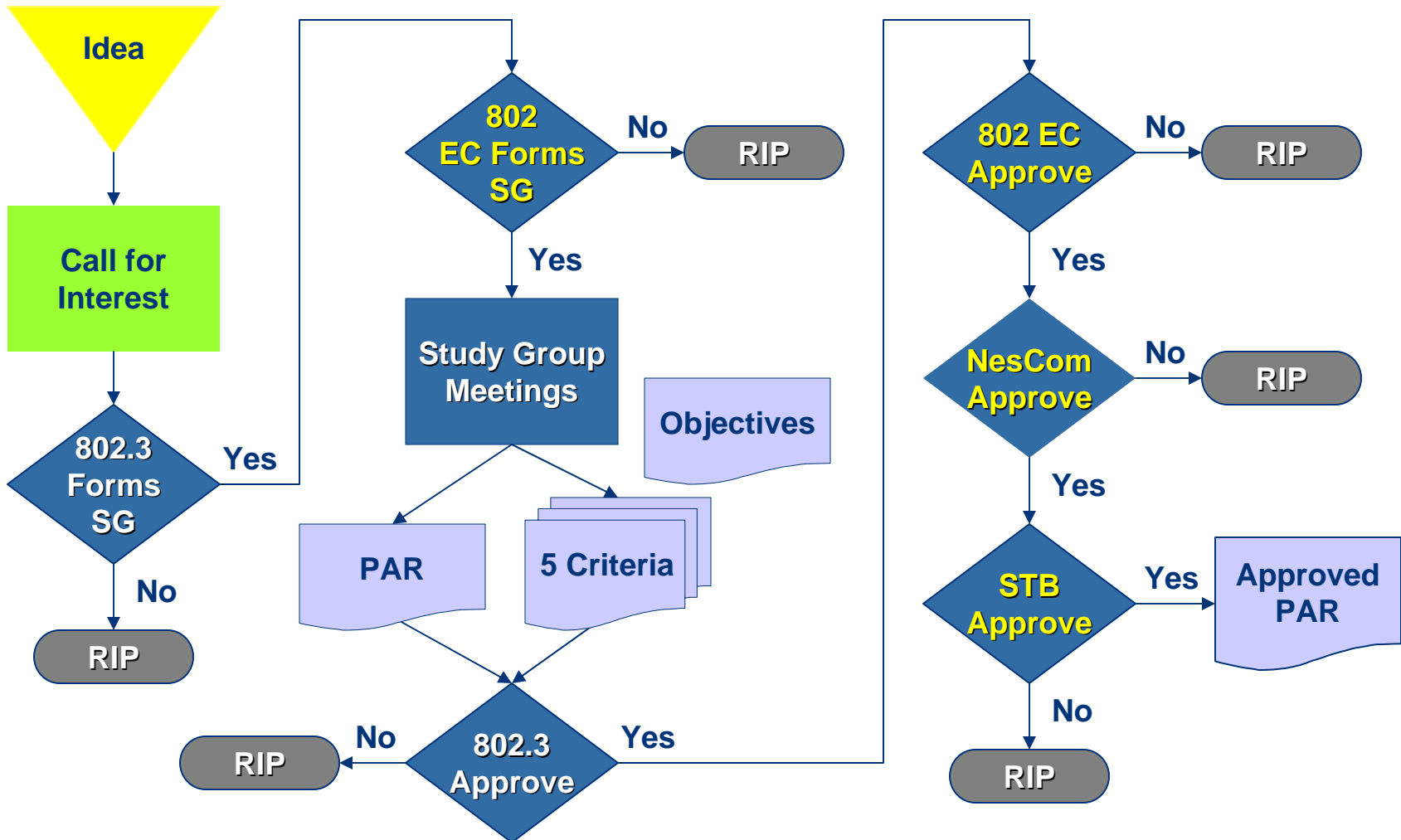#### 14 March 2005

Agenda

- **Reflector and web**

- **IEEE 802.3 standards process**

- **Objectives**

- **Report on January interim**

- **Straw polls**

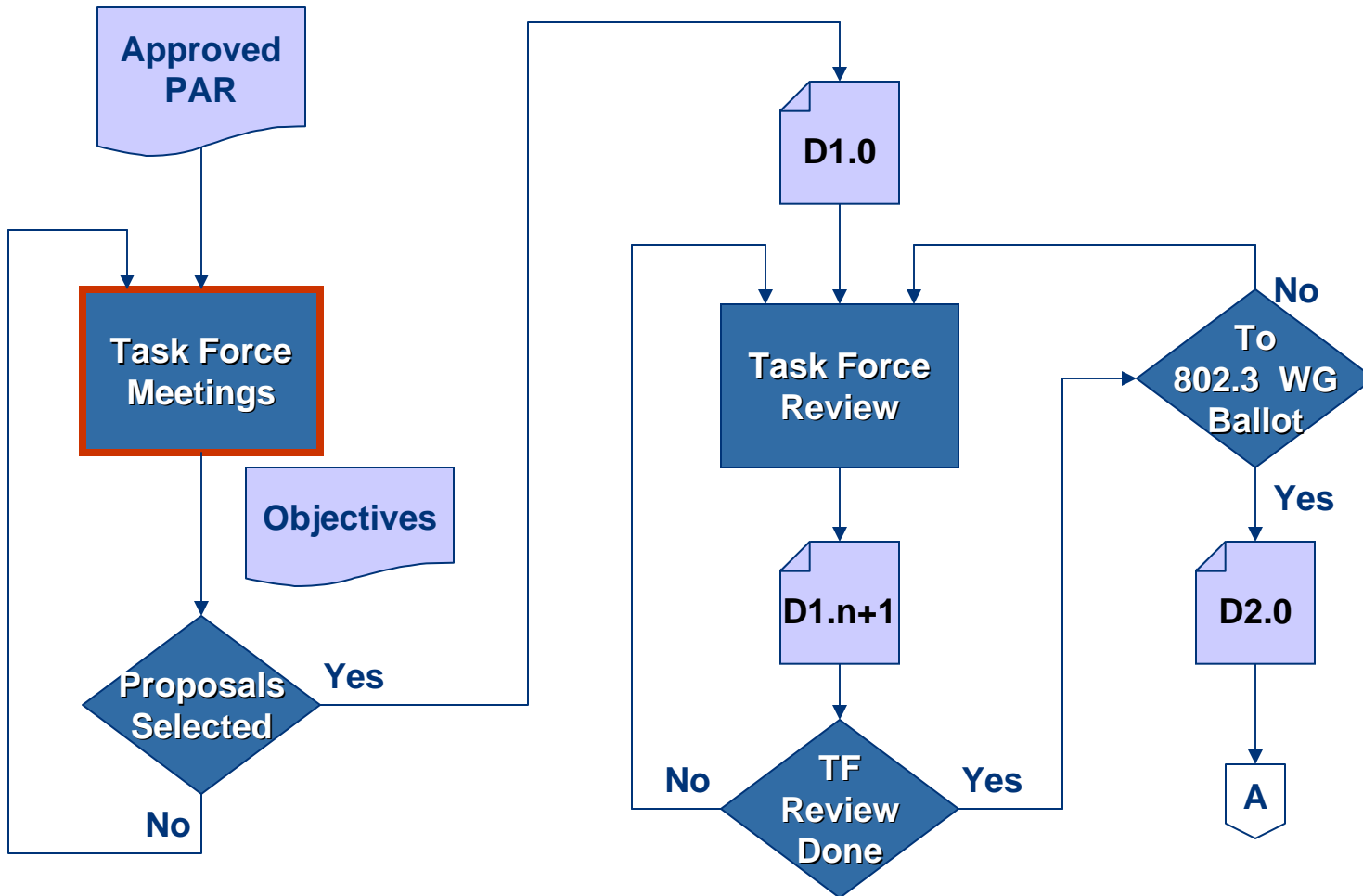- **Project timeline**

- **Plan for week**

Reflector and Web

- **List subscribers: 142 (as of 3/12)**

- **To subscribe to the Congestion Management TF reflector send an email to:**
    listserv@ieee.org

- **with the following in the body of the message:**
    subscribe stds-802-3-cm <first name> <last name>
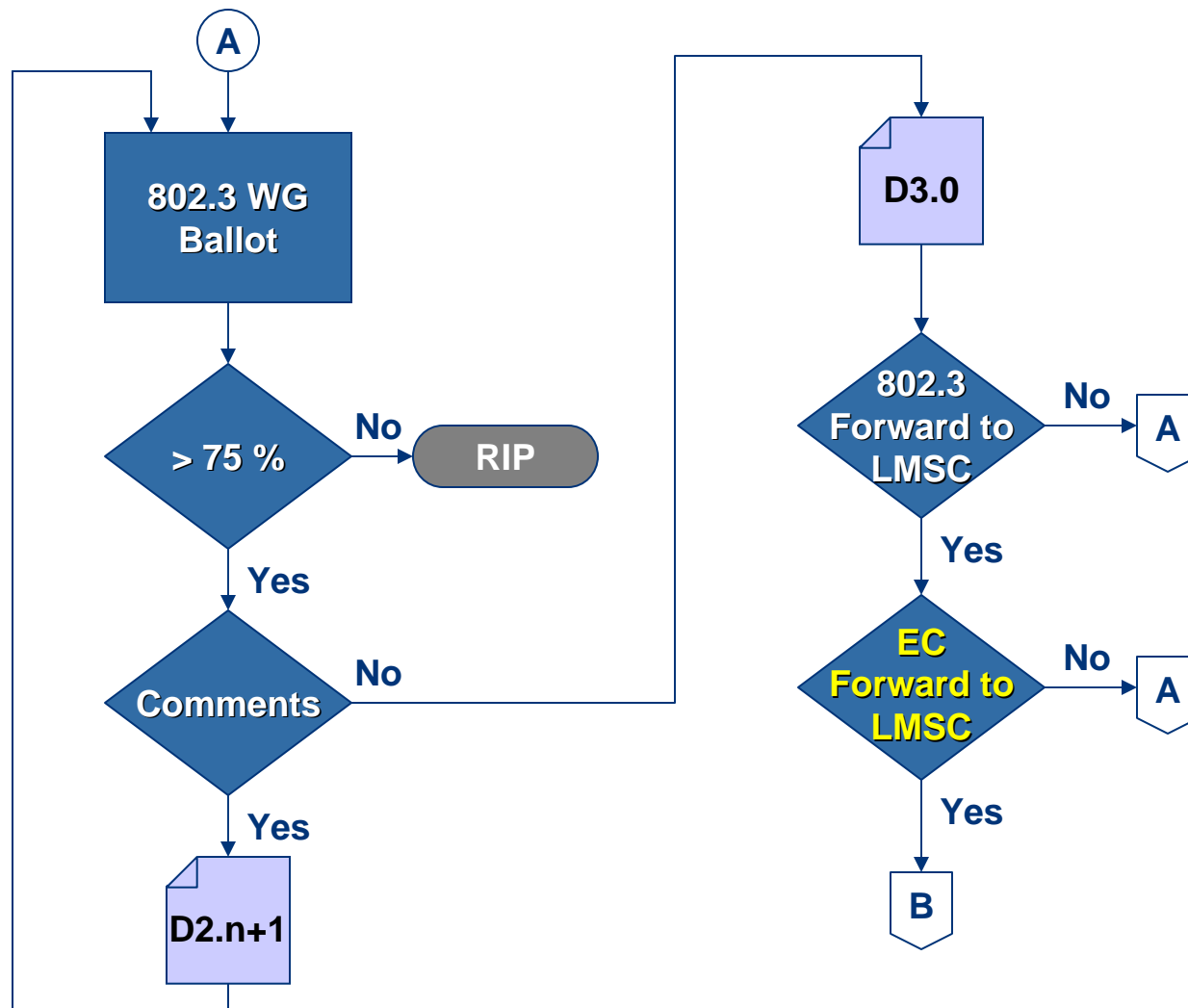
- **Congestion Management TF web page URL:**
    http://www.ieee802.org/3/ar/

IEEE 802.3 Standards Process (1/4)

Idea

Call for Interest

802.3 Forms SG — Yes → **802 EC Forms SG** — No → RIP
802.3 Forms SG — No → RIP

802 EC Forms SG — Yes → **Study Group Meetings**

Objectives

PAR

5 Criteria

802.3 Approve — No → RIP
802.3 Approve — Yes → **802 EC Approve**

802 EC Approve — No → RIP
802 EC Approve — Yes → **NesCom Approve**

NesCom Approve — No → RIP
NesCom Approve — Yes → **STB Approve**

STB Approve — Yes → **Approved PAR**
STB Approve — No → RIP

IEEE 802.3 Standards Process (2/4)

IEEE 802.3 Standards Process (3/4)

P802.3ar Congestion Management

IEEE 802.3 Standards Process (4/4)
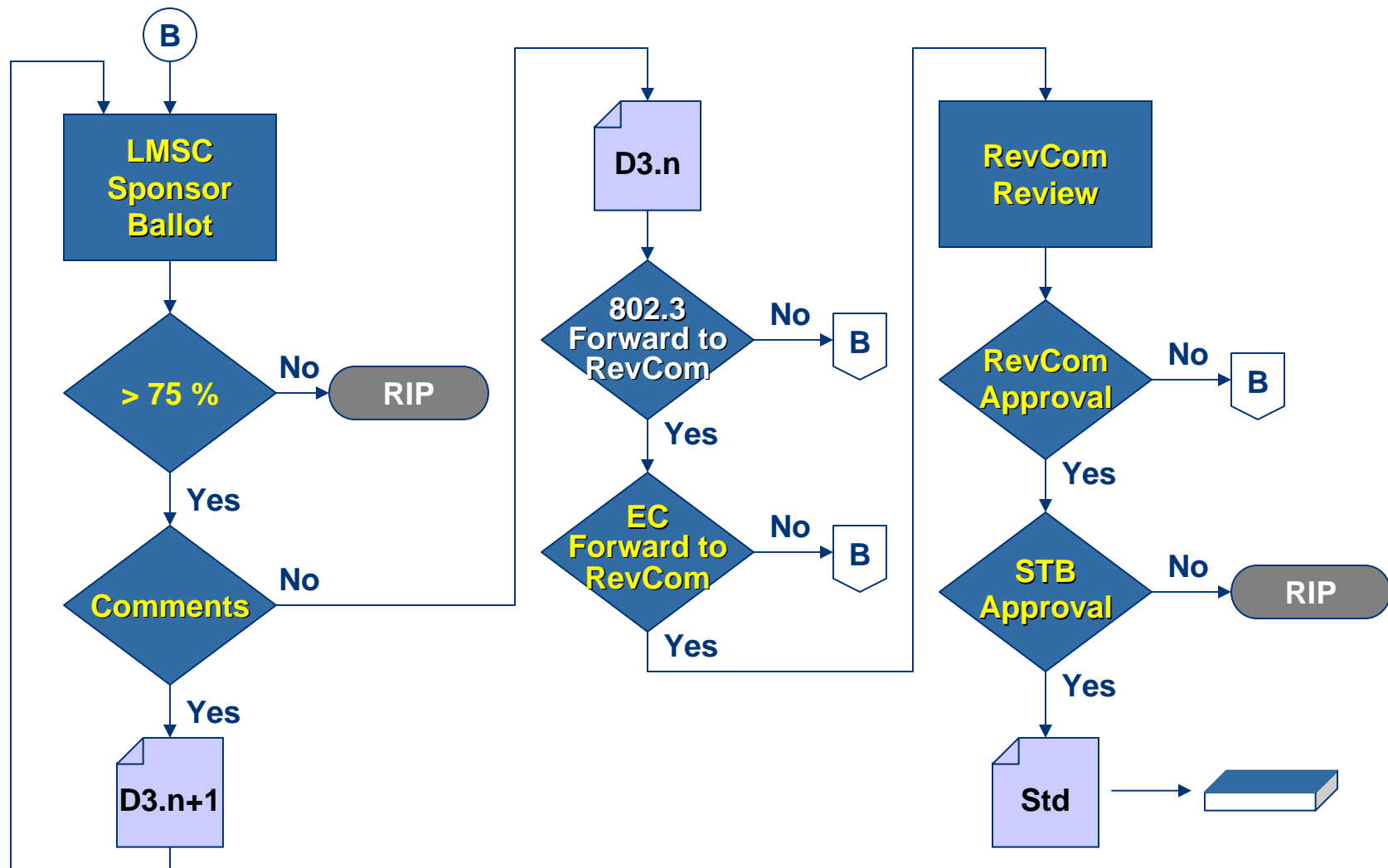
Objectives

1) **Specify a mechanism to limit the rate of transmitted data on an Ethernet link**

2) **Specify a mechanism to support the communication of congestion information**

3) **Minimize throughput reduction in non-congested flows**

4) **Preserve the MAC/PLS service interfaces**

Approved by IEEE 802.3 WG on 18-Nov-2004

January Interim

- **1-day interim, Sacramento**
  - **Co-located with 802.1, P802.3as**
- **Reviewed presentation on three rate limiters**
  - ***objective #1***
- **Reviewed presentation on congestion notification**
  - ***objective #2***
- **Held joint meeting with 802.1**
  - **Reviewed congestion notification presentation**
  - **Members of 802.1 requested formal proposal for consideration at March meeting**
- **Took several straw polls to gauge interest in rate limiters**

Straw polls re: rate limiters

- **Do you agree in principle with defining:**
  - Defining fixed, per-packet overhead rate-limiter **(7-0)**
  - Defining maximum payload rate limiter **(7-2)**
  - Defining maximum packet rate limiter **(6-1)**
  - Defining Clause 30 attributes for each rate limiter **(9-0)**
  - Defining remote rate control request **(3-3)**
  - Cleaning up MAC service interfaces **(10-1)**
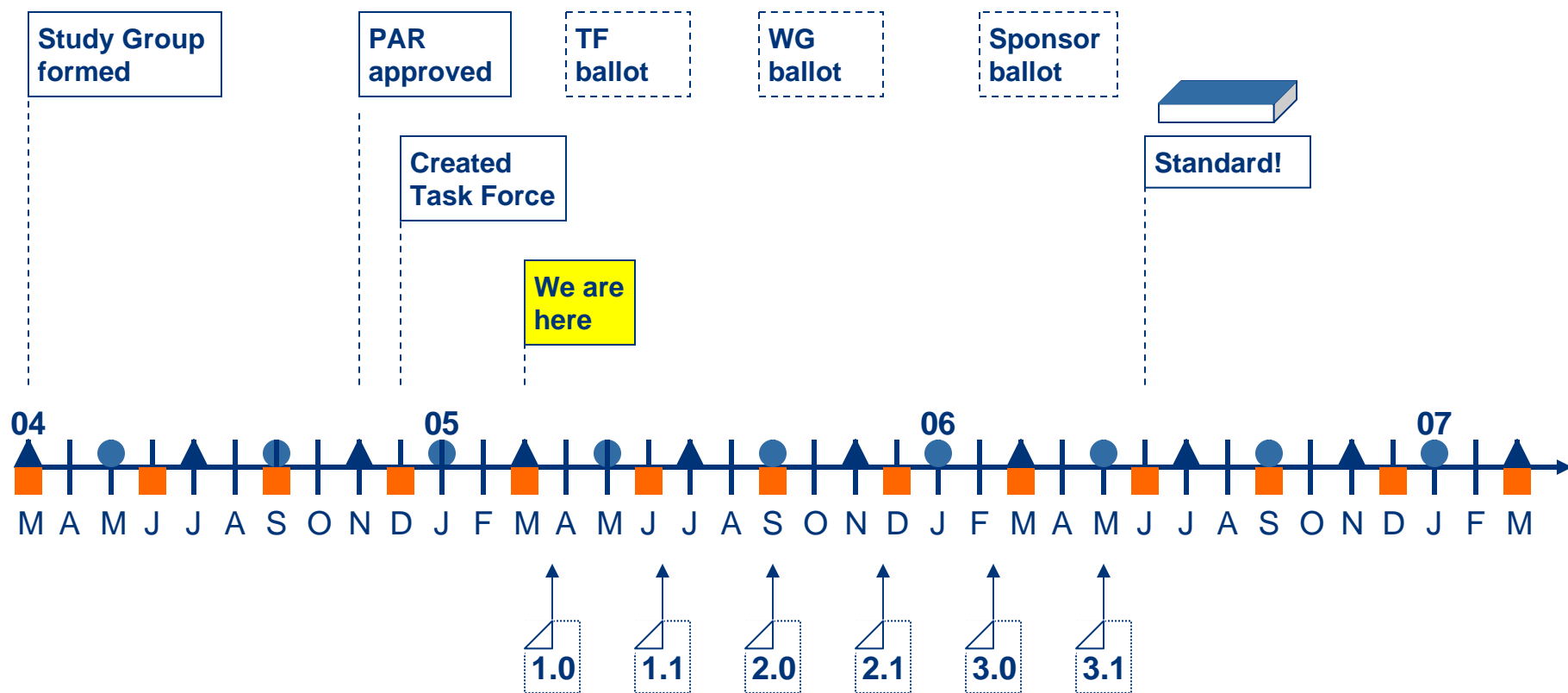
- **14-16 in room**

Straw polls re: CN

- **Do you agree in principle with this statement? 9-0-2,14**
    - In order to enable accelerated deployment of Ethernet into emerging limited-topology applications (clustering, backplanes, storage, data centers, etc.), IEEE 802.1 should specify a standard mechanism for MAC Clients to provide congestion information to L2 edge devices, using wadekar_1_0501.pdf as a basis

- **Do you support packet marking as the means for forward congestion notification? (8-0, 14)**

- **Which method of packet marking do you prefer? (choose one)**
    - Existing 81-00 EType VLAN tag's CFI bit - 3
    - Separate L2 tag - 2
    - Insert new L2 tag
    - Change VLAN tag to new EType

Possible timeline

Study Group formed

PAR approved

TF ballot

WG ballot

Sponsor ballot

Created Task Force

Standard!

We are here

1.0 1.1 2.0 2.1 3.0 3.1

04 05 06 07

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 J F M

Legend
▲ IEEE 802 Plenary
● IEEE 802.3 Interim
■ IEEE-SA Standards Board

Plans for the week

Day	Time	Room	Activity
Tue 3/15	8:30a-12p	Montreal	Opening, presentations
	1:30p-5:00p	Montreal	Preparation for 802.1 proposal
Wed 3/16	1:30p-2:30p	Hanover	Proposal to 802.1
Thu 3/17	8:30a-10:00a	Montreal	Closing P802.3ar session