

802.3 Frame Expansion Study Group

Agenda

Kevin Daines
World Wide Packets

Ottawa, Ontario

Agenda

- **Welcome and Introductions**
- **Appoint/Volunteer Recording Secretary**
- **Goals for this Meeting**
- **Reflector and Web**
- **Ground Rules**
- **IEEE**
 - **Structure**
 - **Bylaws and Rules**
 - **Call for Patents**
 - **IEEE Standards Process**
- **Presentations**
- **Motions**
- **Future Meetings**

Plan for interim (from July)

- **Research following topics:**
 - **Frame size limitations of:**
 - Existing equipment – below MAC (elasticity buffers, block coding, delimiters)
 - Existing equipment – above MAC (FIFO, fabric)
 - Links with FEC (EPON)
 - Rate compensation (WAN PHY, EFM Copper)
 - **Effect of increased overhead on performance, especially in aggregation**
 - **Feasibility of reducing MTU of installed base of clients**
 - **Tutorial on 802.1AB**
 - **Straw man frame format modifications**
- **Finalize PAR/5 criteria**
- **Draft TF objectives**

Reflector and Web

- To subscribe to the Frame Expansion SG reflector send an email to:

listserv@ieee.org

- with the following in the body of the message:

subscribe stds-802-3-fe <first name> <last name>

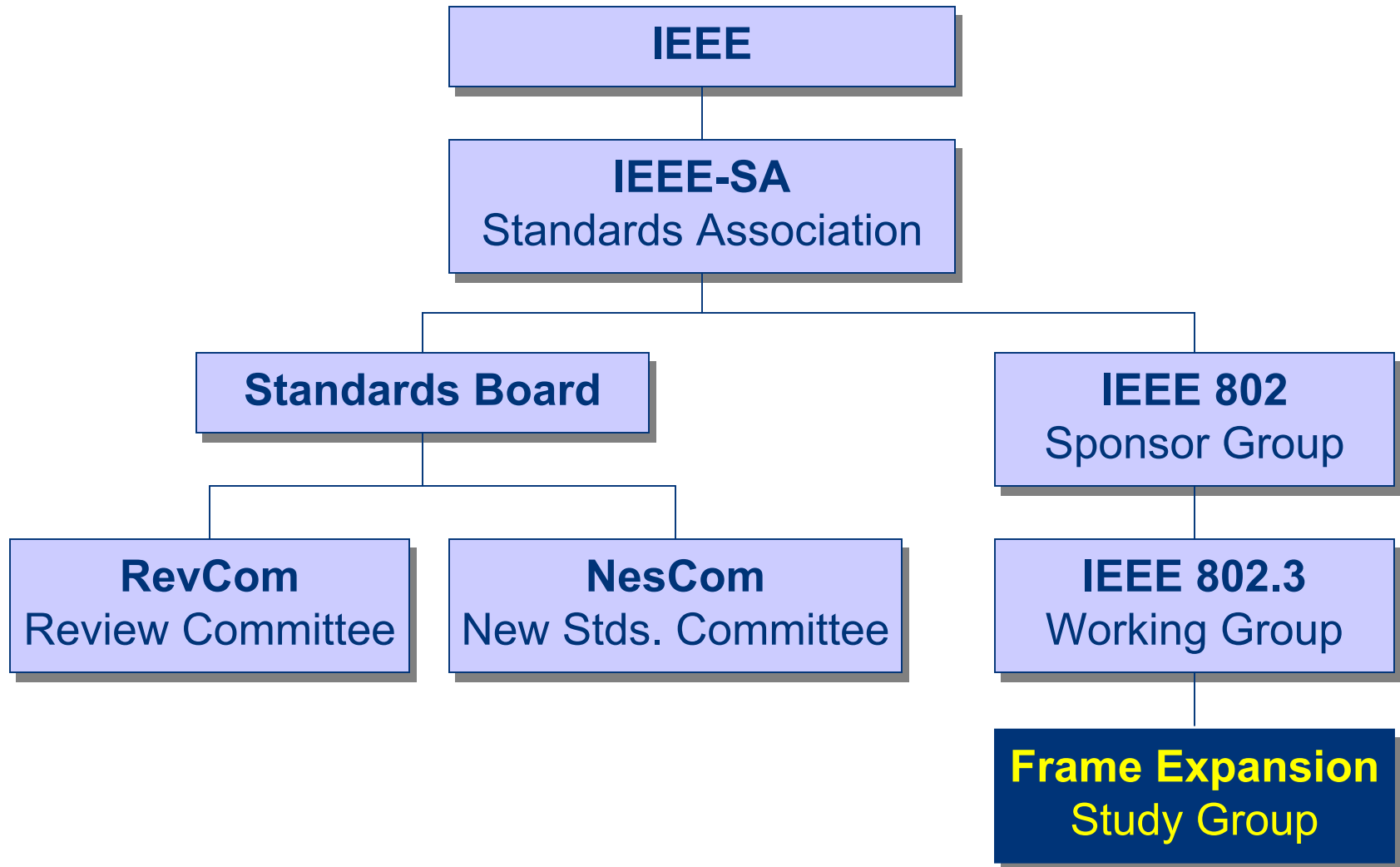
- Frame Expansion SG web page URL:

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

Ground Rules

- **802.3 Rules apply**
 - **Foundation based upon Robert's Rules of Order**
- **Anyone in the room may speak**
- **Anyone in the room may vote**
- **RESPECT... give it, get it**
- **NO product pitches**
- **NO corporate pitches**
- **NO prices!!!**
 - **This includes costs, ASPs, etc. no matter what the currency**
- **NO restrictive notices**

IEEE Structure



Bylaws and Rules

- **Bylaws of the IEEE Standards Association (IEEE-SA):**
<http://standards.ieee.org/sa/sa-bylaws.pdf>
- **Bylaws of the IEEE-SA Standards Board:**
<http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>
- **IEEE LAN/MAN Standards Committee (LMSC)
Operating Rules:**
<http://www.ieee802.org/rules.pdf>
- **IEEE 802.3 Working Group Operating Rules:**
<http://www.ieee802.org/3/rules/>

IEEE-SA Standards Board Bylaws on Patents in Standards

6. Patents

IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of 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 without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination**

This assurance shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.

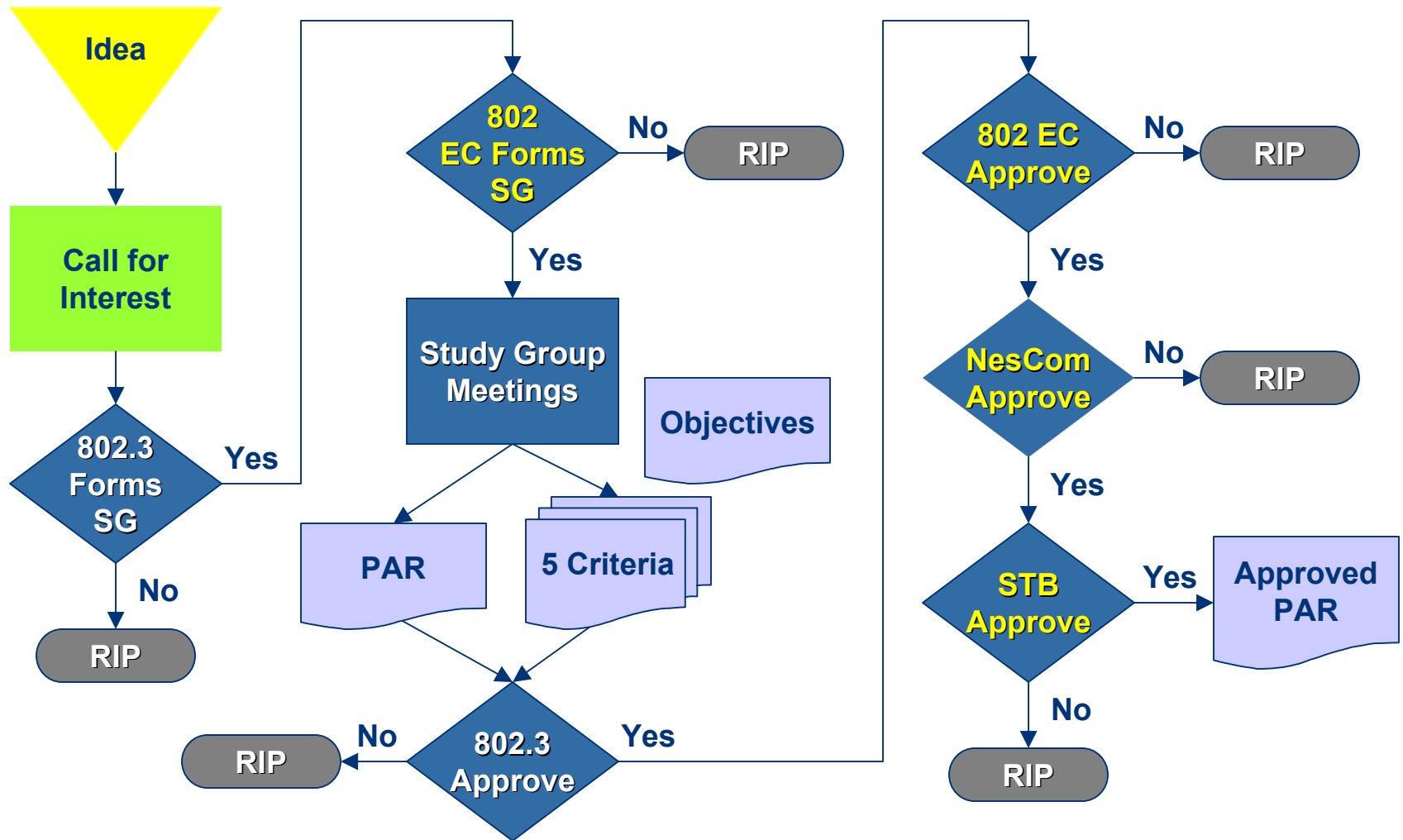
Approved by IEEE-SA Standards Board – December 2002

Inappropriate Topics

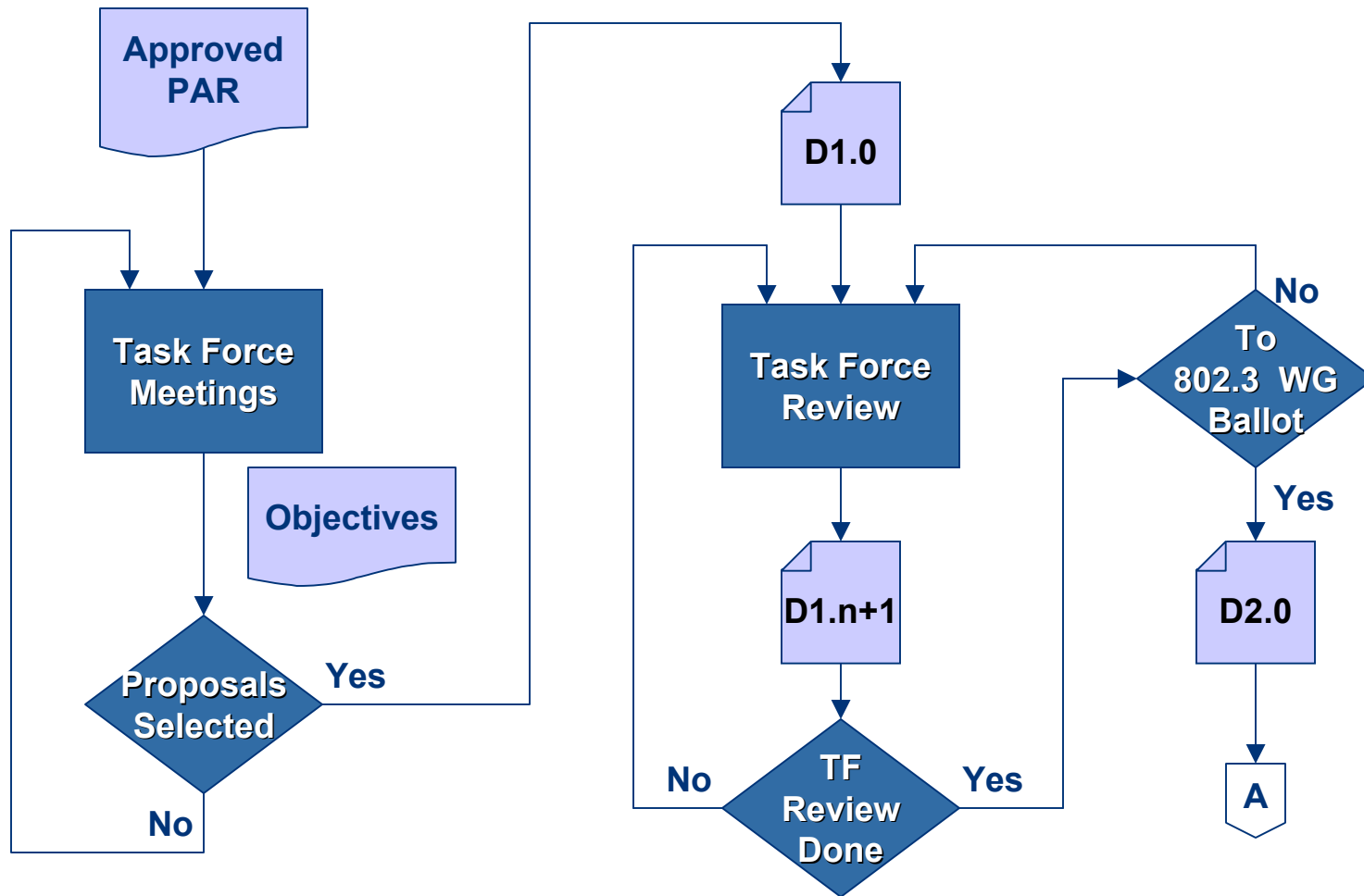
- **Don't discuss licensing terms or conditions**
- **Don't discuss product pricing, territorial restrictions or market share**
- **Don't discuss ongoing litigation or threatened litigation**
- **Don't be silent if inappropriate topics are discussed... do formally object.**
- **If you have questions, contact the IEEE Patent Committee Administrator at patcom@ieee.org**

Approved by IEEE-SA Standards Board – December 2002

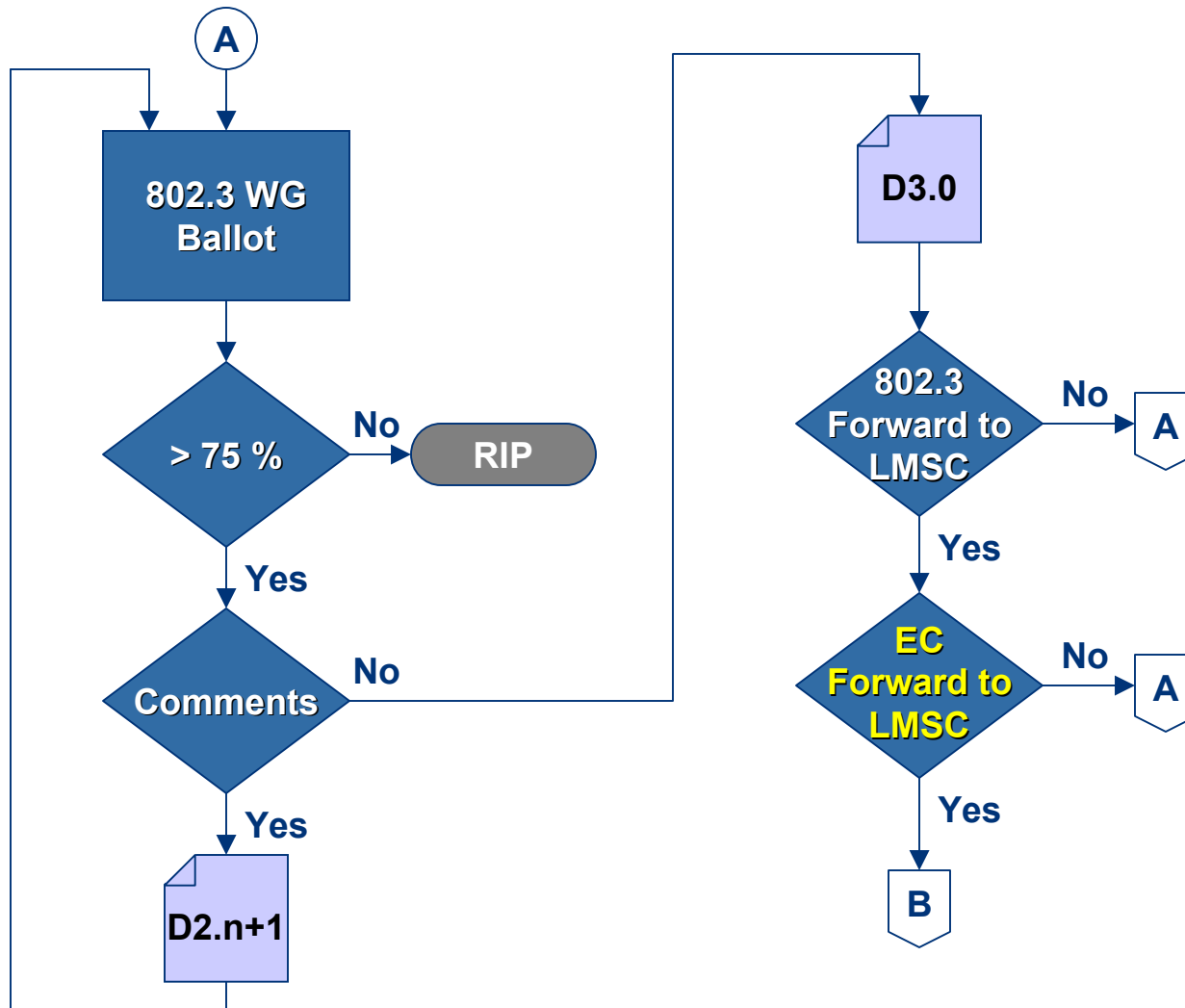
IEEE 802.3 Standards Process (1/4)



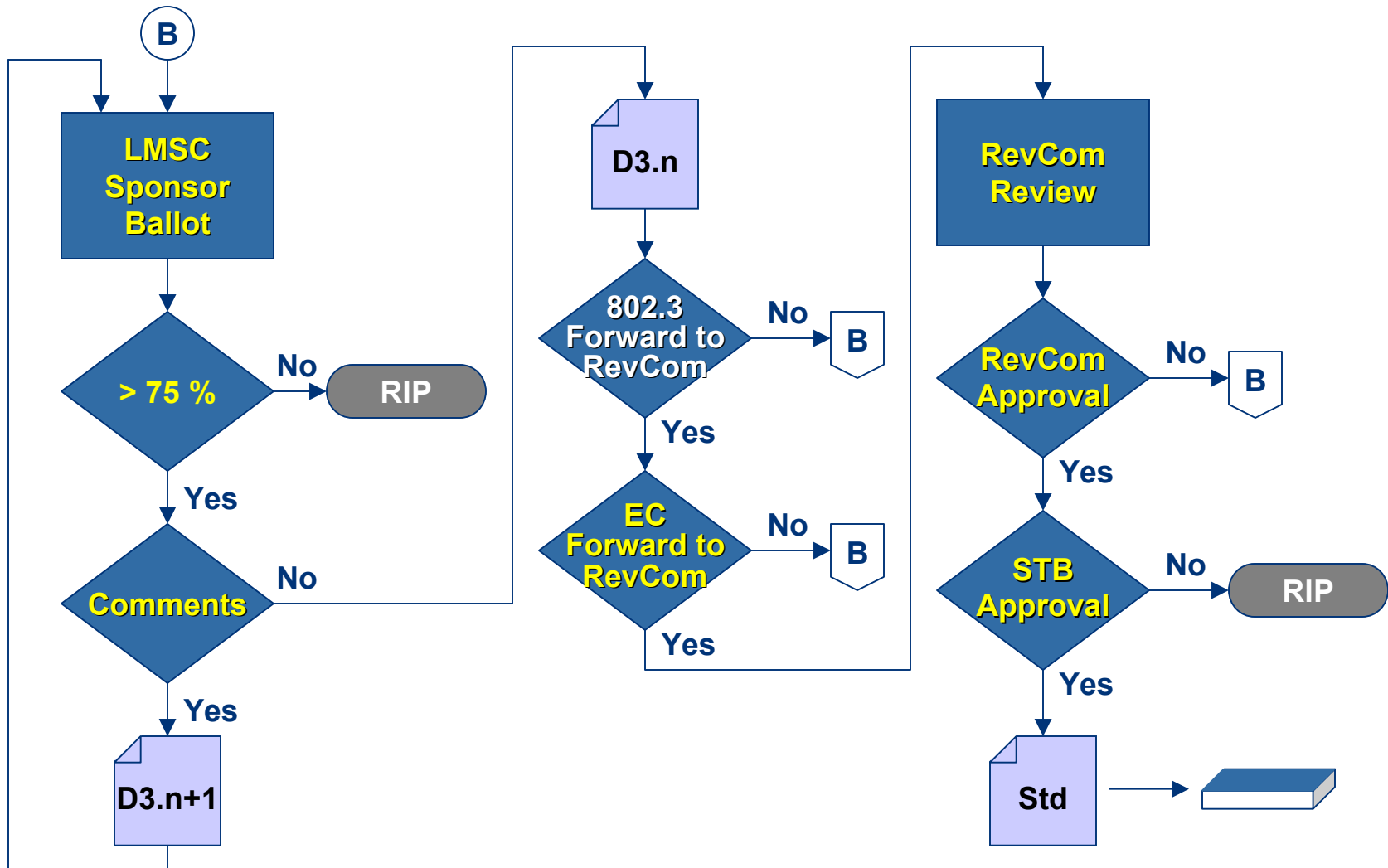
IEEE 802.3 Standards Process (2/4)



IEEE 802.3 Standards Process (3/4)



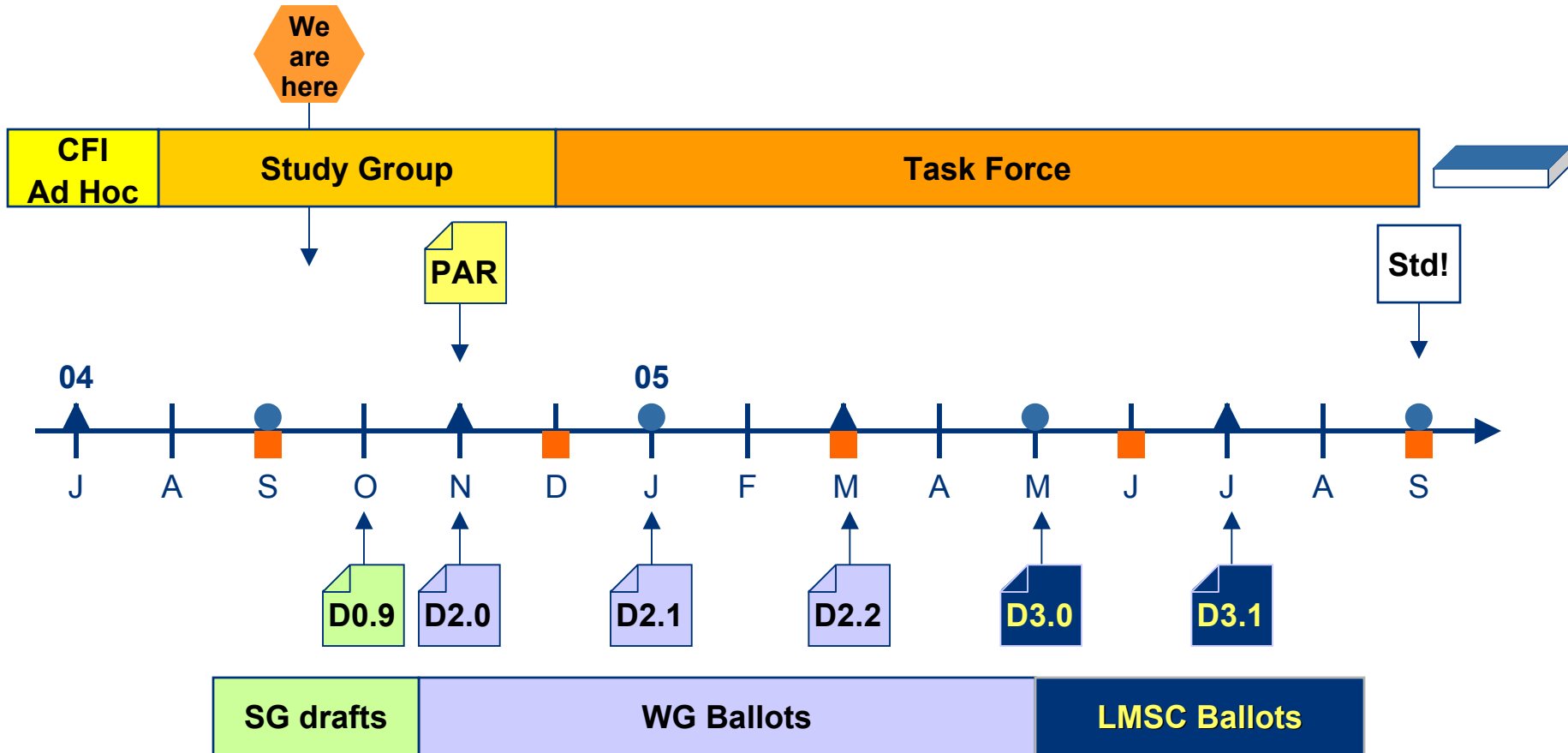
IEEE 802.3 Standards Process (4/4)



Study Group

- **Function is to draft a PAR and 5 Criteria**
- **Gain approval at WG 802.3, 802 EC, IEEE NesCom and IEEE Standards Board**
- **SG only exists for 6 months**
 - **Extensions can be requested... voted on by 802.3, ratified by EC**
- **Development of Objectives helps set the goals for the Task Force**
- **Developing consensus**
 - **Education helps build consensus**
 - **Consensus (> 75%) required to move forward**

Possible (aggressive) timeline



Legend

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

Presentations

Presenter	Topic	Filename	Start	Len
A. Braga	Frame size support of existing Ethernet devices	braga_1_0409.pdf	09:00	45
D. Martin	Impact of expanding frame size to IFS Stretch / 10G WAN	martin_1_0409.pdf	10:00	15
<i>break</i>				
K. Daines	Impact of expanding frame size to PAUSE flow control	daines_1_0409.pdf	11:00	15
K. Daines	Impact of expanding frame size to overhead, aggregation	daines_2_0409.pdf	11:15	15
K. Daines	Proposed changes to Clause 3	daines_3_0409.pdf	11:30	15
<i>Lunch</i>				
P. Blatherwick	Overview of LLDP	blatherwick_1_0409.pdf	01:30	45
K. Daines	Informal frame size poll	daines_4_0409.pdf	02:15	15
<i>break</i>				
	Review/approve PAR/5 Criteria	802.3_FESG_draft_PAR_5_criteria.pdf		
	Review proposed objectives	802.3_FESG_objectives_0409.pdf		

Motions

Future Meetings

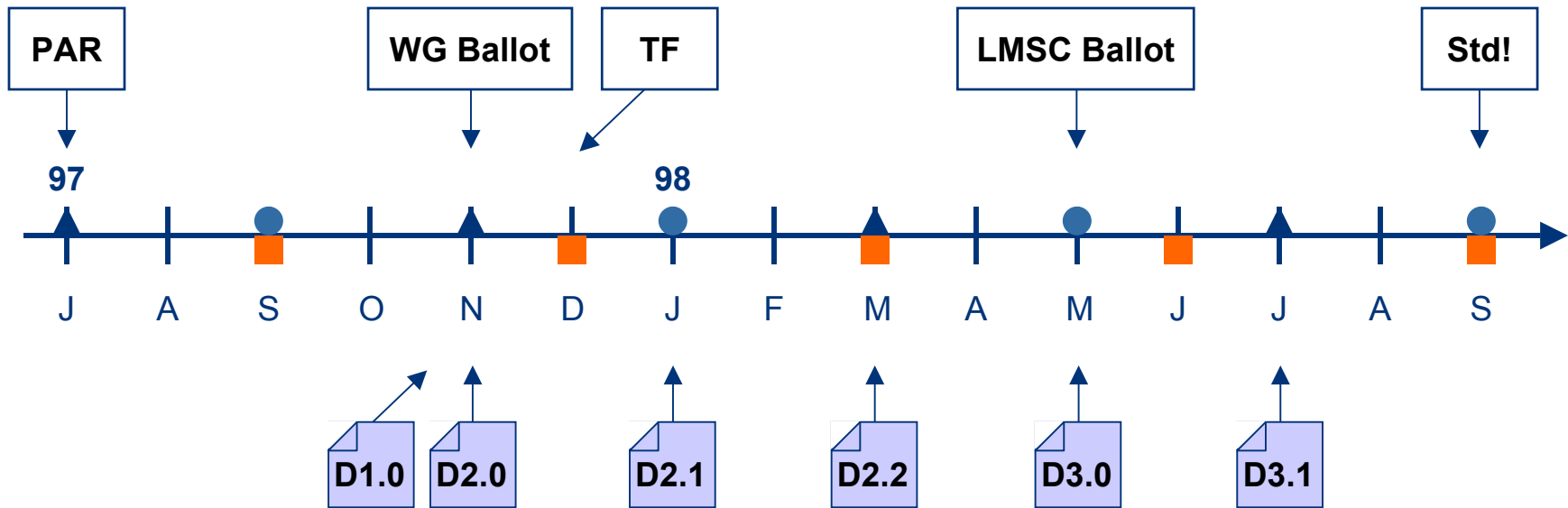
- **November 14-19, 2004**
 - **IEEE 802 Plenary, San Antonio**
- **January, 2005**
 - **IEEE 802.3 Interim, TBD**
- **March 13-18, 2005**
 - **IEEE 802 Plenary, Atlanta**

Backup

Concerns raised in July

- **“Is this absolutely necessary?”**
 - **Alternatives**
 - Exclude .3 support from .1ad & .1AE standards
 - Handle on bootleg basis
 - Require .1 SAR function
 - Reduce client MTU to make room for added headers
 - **Or**
 - **Expand frame size**
 - *Possibly use discovery to enable larger frames on some links*
- **Backward compatibility**
 - Location of QTag, CSMA/CD fairness,
- **Additional space used only for headers, not data**
- **QoS/efficiency impact**

P802.3ac Timeline



Legend

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