



IEEE P802.3ap

Backplane Ethernet Task Force

Agenda and General Information

Atlanta, GA
March 15, 2005



Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Meeting Minutes
- Goals for this Meeting
- Task Force Organization
- Reflector and Web
- Ground Rules
- IEEE
 - Structure
 - Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Review Task Force Status
- Presentations
- Closing Business
- Future Meetings



Presentation Agenda (3/15)

8:30 AM		Agenda and General Information	0:30
9:00 AM	van Doorn	Editor's Report	0:15
9:15 AM	Altmann	Signaling ad hoc report-out	0:10
9:25 AM	Barazande-Pour	Simulation Results for 10 Gb/s Duobinary Signaling	0:30
9:55 AM		Break	0:20
10:15 AM	Moore	Simplified theory of NRZ, duo-binary, and PR-4	0:10
10:25 AM	Anderson	Signaling Method Performance Results	0:30
10:55 AM	Liu	Comparison of Signaling Schemes for 802.3ap	0:20
11:15 AM	Altmann	Simulation Results for 10Gb Serial BP Links	0:40
11:55 AM		Lunch	1:30
1:25 PM	Brink	Comparison of NRZ, PR-2, and PR-4 signaling	0:25
1:50 PM	Abler	NRZ/DFE simulation results over ad-hoc channels	0:20
2:10 PM	Bar-Niv	NRZ Simulation on pre-selected ad hoc channels	0:25
2:35 PM	Popescu	10 Gb/s NRZ Signalling on Ethernet Backplane	0:25
3:00 PM		Break	0:20
3:20 PM	Healey	Channel Model Ad Hoc Report	0:15
3:35 PM	Oganessyan	10 Gbps Data Transmission in FR-408 GbX Reference Backplane	0:20
3:55 PM	Peters	Improved HVM ATCA Models	0:40
4:35 PM	Hendrick	Enterprise Midplane Channel Definition	0:20
4:55 PM	Xiao-Ming Gao	Comparisons of different S parameter DC extrapolation methods and their impacts on equalization	0:30
5:25 PM		Break	



Presentation Agenda (3/16)

8:30 AM	Moore	Specifying Crosstalk	0:30
9:00 AM	Popescu	Crosstalk Penalty Analysis	0:20
9:20 AM	Thaler	Digital Signal Detect Function	0:30
9:50 AM		Break	0:20
10:10 AM	Fakterman	Codes comparison for 10G backplane system	0:40
10:50 AM	Szczepanek	CEI-P FEC and 802.3ap	0:30
11:20 AM		Comment Resolution	0:30
11:50 AM		Lunch	1:30
1:20 PM		Comment Resolution	1:40
3:00 PM		Break	0:20
3:20 PM		Comment Resolution	2:10
5:30 PM		Break	



Goals for this Meeting

- Work toward a “technically complete” draft of IEEE P802.3ap.
 - Fill in TBD’s with specification values.
 - Fill in placeholders with specification text.
 - Still aiming for July 2005 Working Group ballot.

- “Big Ticket” Items
 - 10GBASE-KR signaling
 - Backplane channel specifications
 - Compliance test methodologies

- Hear presentations.
 - 22 presentations on the agenda for this week.

- Resolve comments against Draft 0.8.



Task Force Organization

- Task Force Chair
 - Adam Healey (ahealey@agere.com)

- Task Force Secretary
 - John D'Ambrosia (john.dambrosia@tycoelectronics.com)

- Chief Editor
 - Schelto van Doorn (schelto.vandoorn@intel.com)

- Channel Model Ad Hoc Chair
 - Adam Healey (acting)

- Signaling Ad Hoc Chair
 - Mike Altmann (michael.w.altmann@intel.com)



Reflector and Web

- To subscribe to the IEEE P802.3ap Backplane Ethernet Task Force reflector send an email to:
[*listserv@ieee.org*](mailto:listserv@ieee.org)

with the following in the body of the message (do not include “<>”):
subscribe stds-802-3-blade <yourfirstname> <yourlastname>

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

<http://ieee802.org/3/ap/reflector.html>

- IEEE P802.3ap Task Force web page:
<http://www.ieee802.org/3/ap/>
- Channel Model Ad Hoc web page:
http://www.ieee802.org/3/ap/public/channel_adhoc
- Signaling Ad Hoc web page:
http://www.ieee802.org/3/ap/public/signal_adhoc



IEEE P802.3ap Draft Repository

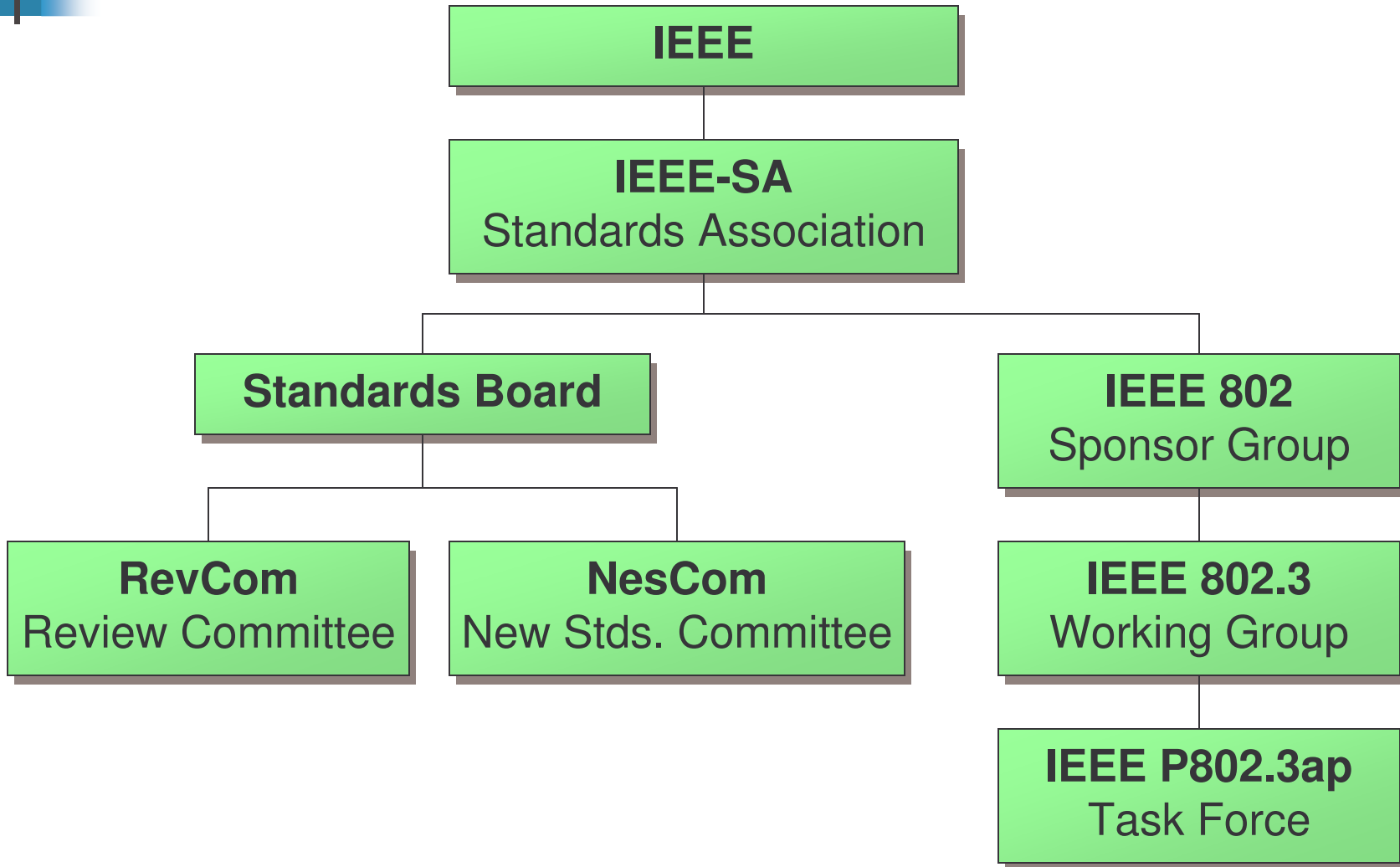
- IEEE P802.3ap Private Area:
 - username: **802.3ap**
 - password: ●●●●●●●●



Ground Rules

- 802.3 Rules apply...
 - Foundation based upon Robert's Rules of Order
- ...with the following exceptions:
 - 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

- IEEE Standards Association (IEEE-SA):
<http://standards.ieee.org/sa>
- 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 Patent Policy

- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*
- Early disclosure of patents which may be essential for the use of standards under development is encouraged
- Disclosures made of such patents may not be exhaustive of all patents that may be essential for the use of standards under development, and that neither the IEEE, the WG, nor the WG Chairman ensure the accuracy or completeness of any disclosure or whether any disclosure is of a patent that, in fact, may be essential for the use of standards under development.



IEEE-SA Standards Board Bylaws on Patents in Standards

6. Patents

IEEE standards may include the known use of essential patents and patent applications provided the IEEE receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard [essential patents]. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent or patent application 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 either mandatory or optional portions of the proposed IEEE standard against any person or entity complying with the standard; or
- b) A statement that a license for such implementation 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 – March 2003 (Revised December 2004)



Inappropriate Topics for IEEE WG Meetings

- 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-SA Standards Board Patent Committee Administrator at:

patcom@ieee.org

or visit

<http://standards.ieee.org/board/pat/index.html>

This slide set is available at:

<http://standards.ieee.org/board/pat/pat-slideset.ppt>

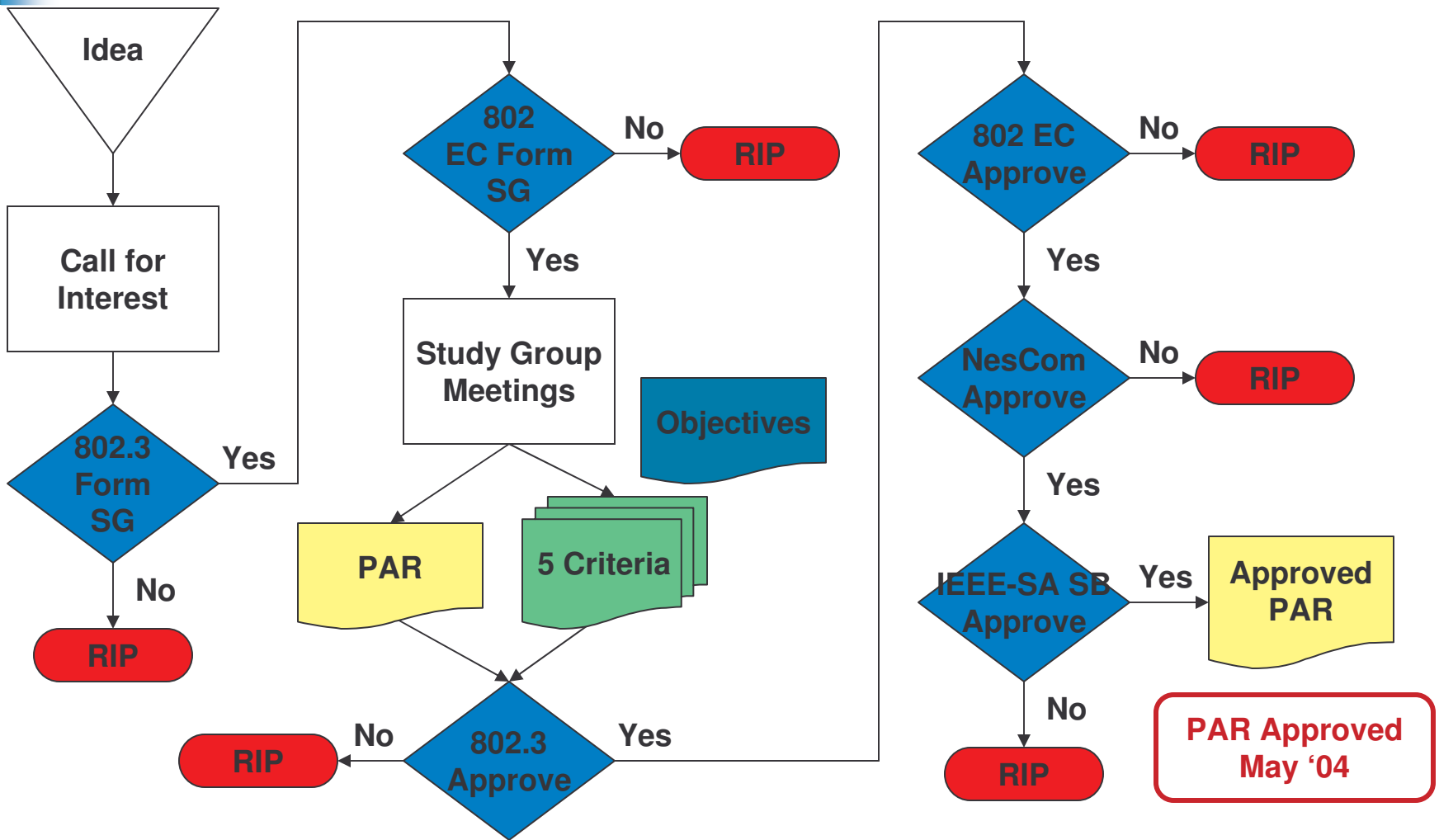
Approved by IEEE-SA Standards Board – March 2003 (Revised December 2004)



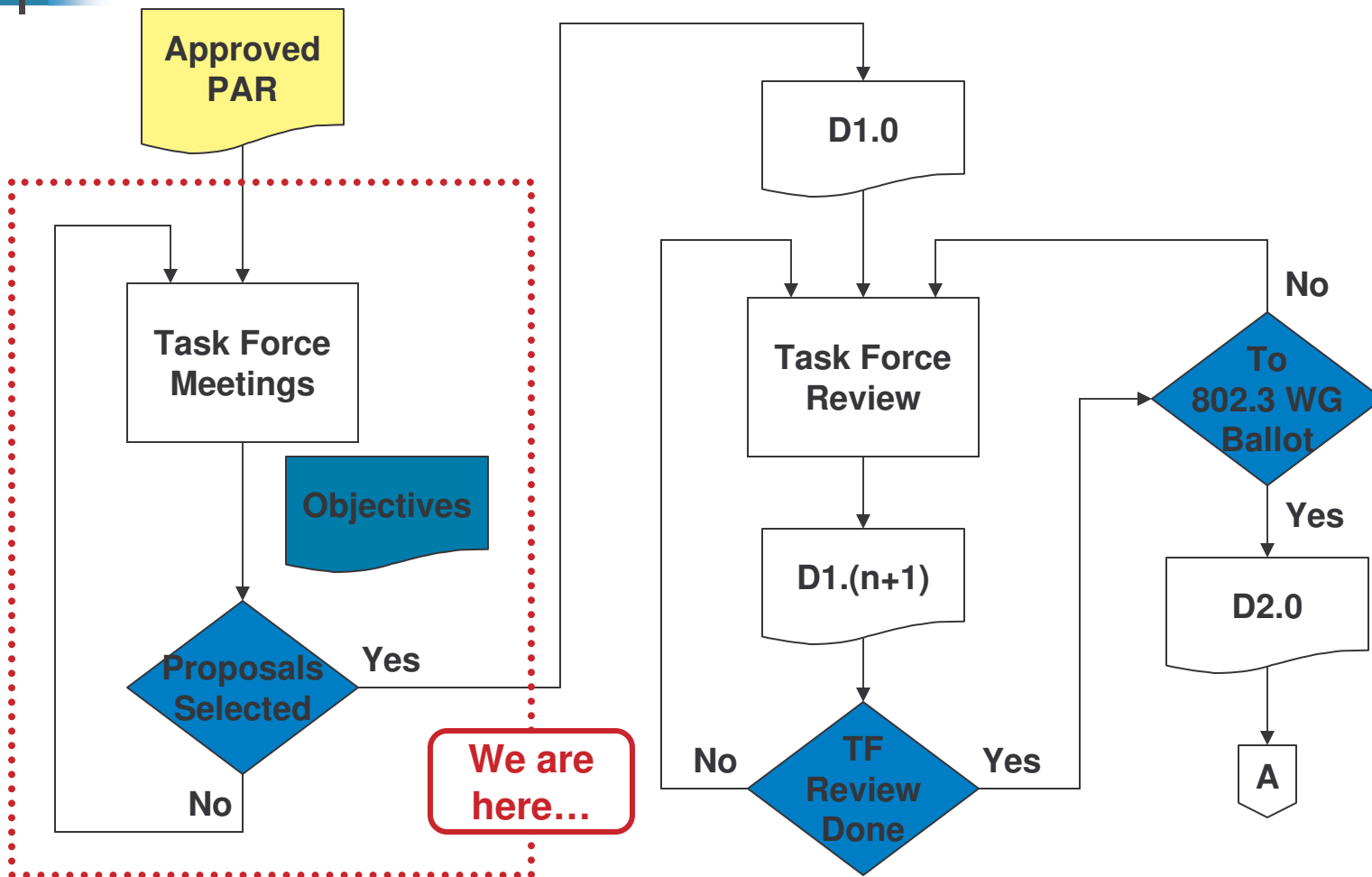
Process Overview

- Adopt proposals for the formation of a baseline
- Baseline is used to create Draft 1.0
- Draft 1.0 is reviewed by the Task Force
 - Comments on the draft are generated and resolved
 - Multiple iterations
 - When Task Force review is completed and the draft is technically complete...
- ...ask the 802.3 working group to authorize a working group ballot (Draft 2.0)...

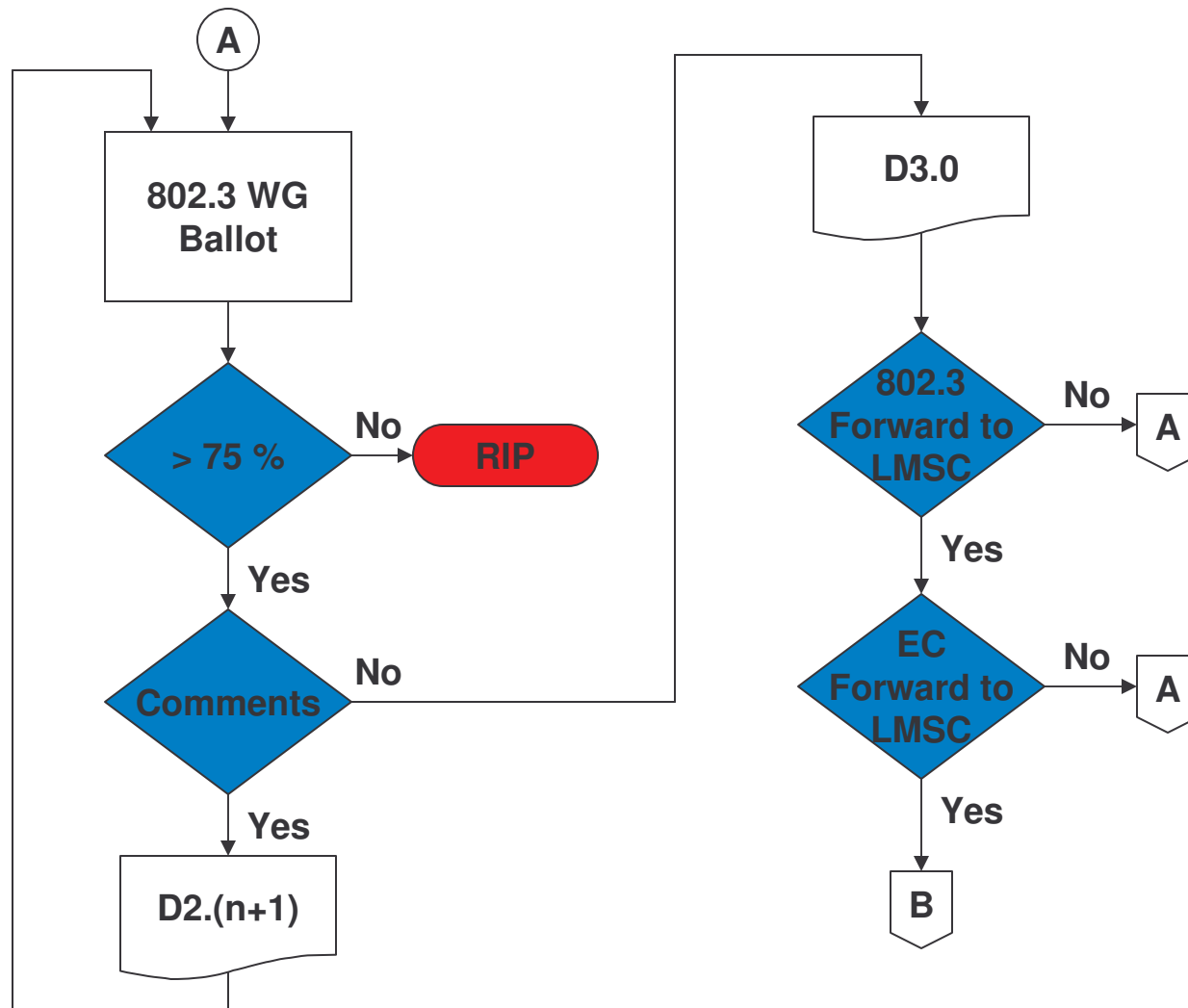
IEEE Standards Process



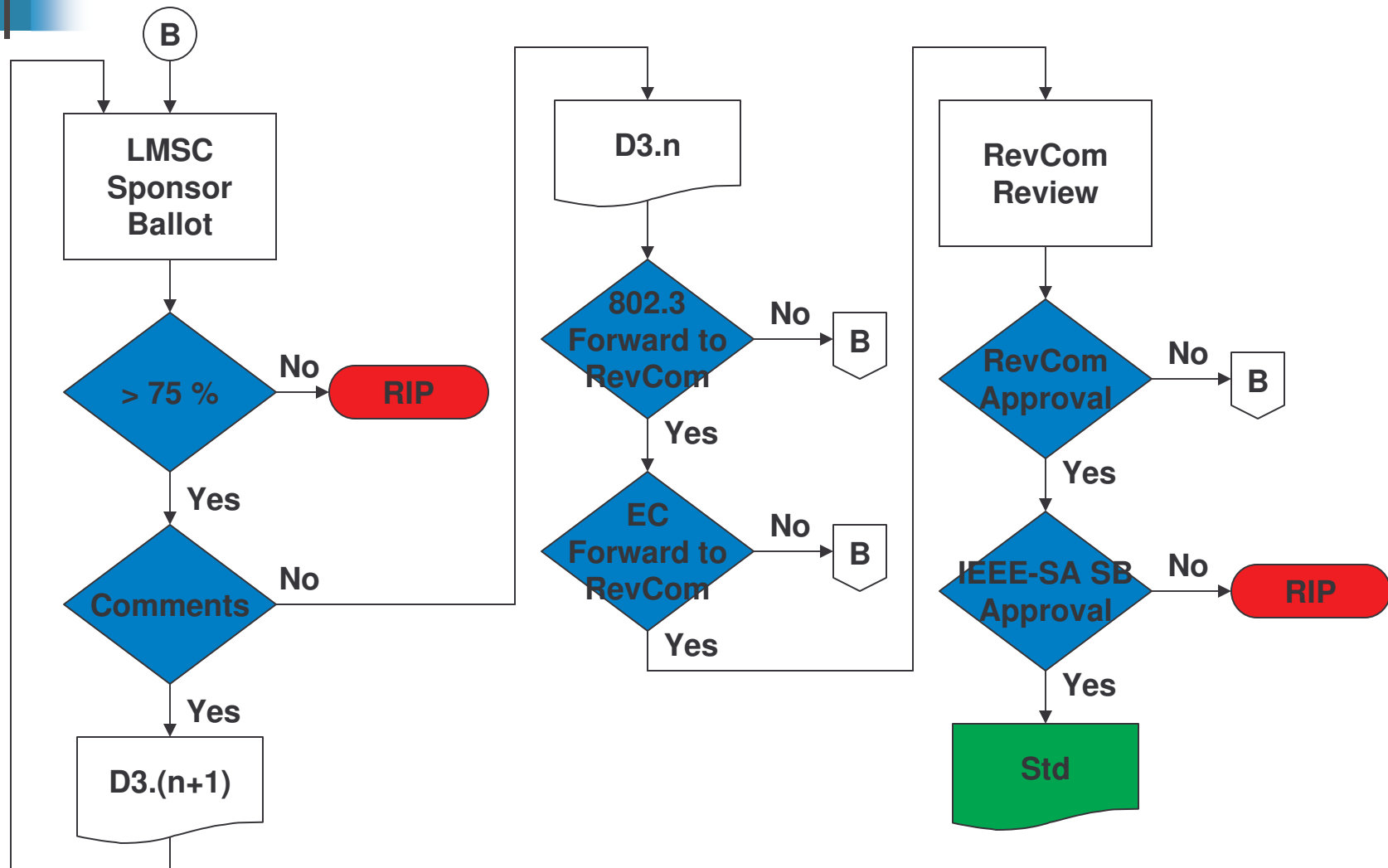
IEEE Standards Process (cont.)



IEEE Standards Process (cont.)



IEEE Standards Process (cont.)





IEEE P802.3ap Task Force Documents

- Approved PAR

<http://standards.ieee.org/board/nes/projects/802-3ap.pdf>

- 5 Criteria

http://ieee802.org/3/ap/802_3_ap_5criteria.pdf

- Objectives

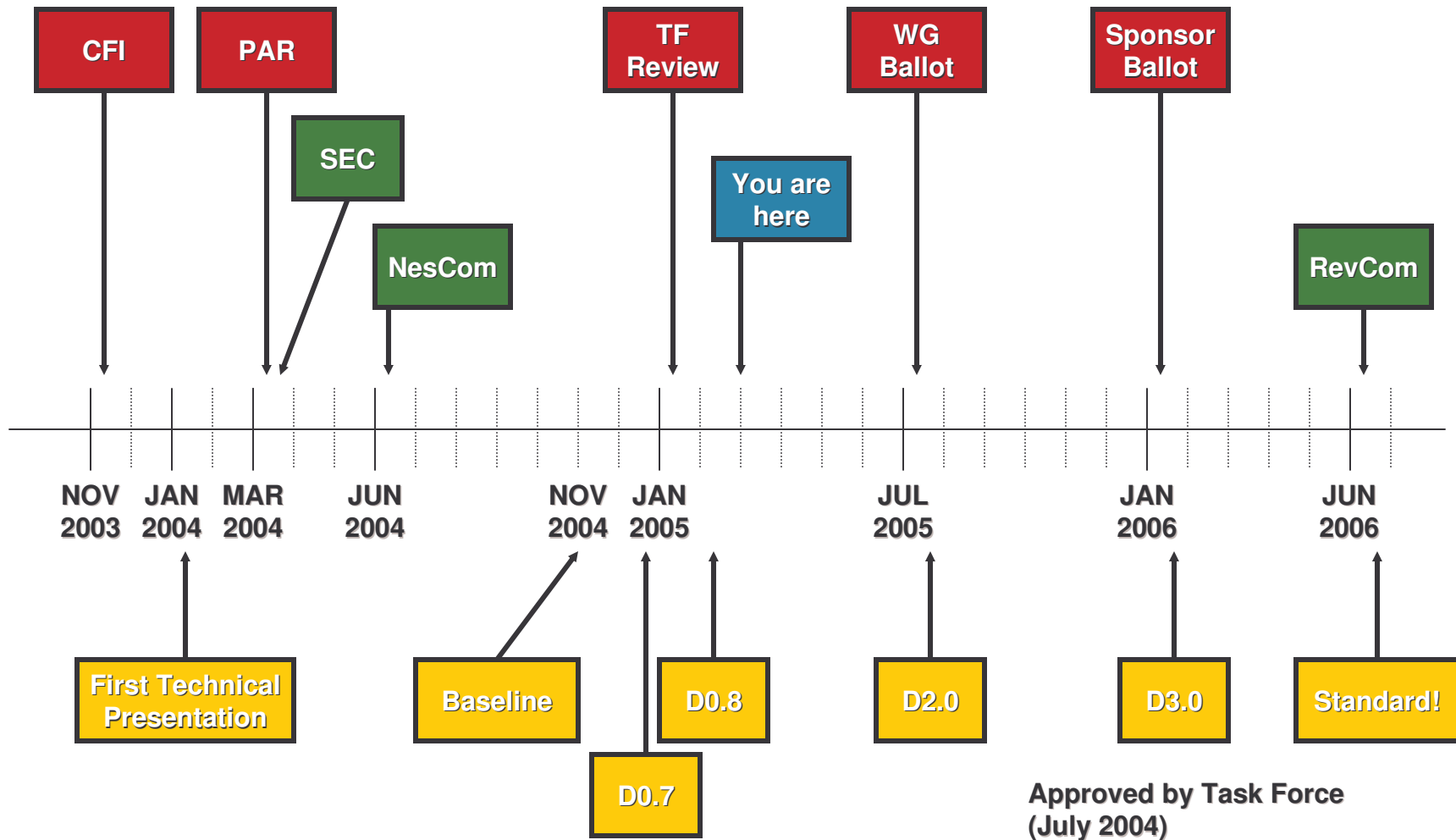
http://ieee802.org/3/ap/802_3_ap_objectives.pdf



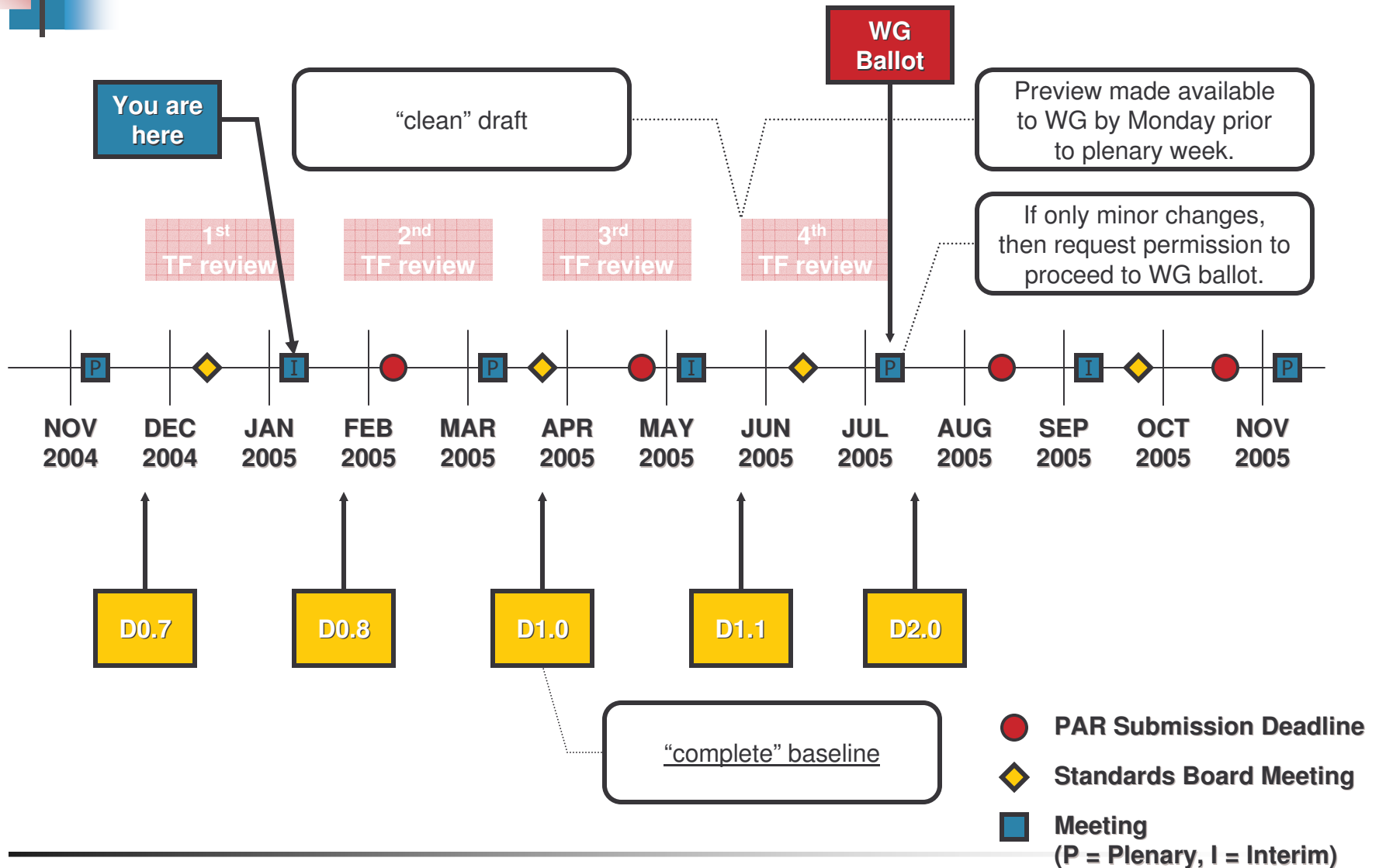
IEEE P802.3ap Objectives

- **Preserve the 802.3/Ethernet frame format at the MAC Client service interface.**
- **Preserve min. and max. frame size of current 802.3 Std.**
- **Support existing media independent interfaces.**
- **Support operation over a single lane across 2 connectors over copper traces on improved FR-4 for links consistent with lengths up to at least 1m.**
 - **Define a 1 Gb/s PHY**
 - **Define a 10 Gb/s PHY**
- **Define a 4-lane 10Gb/s PHY for operation over the 802.3ap channel model.**
- **Consider auto-negotiation.**
- **Support BER of 10^{-12} or better.**
- **Meet CISPR/FCC Class A.**

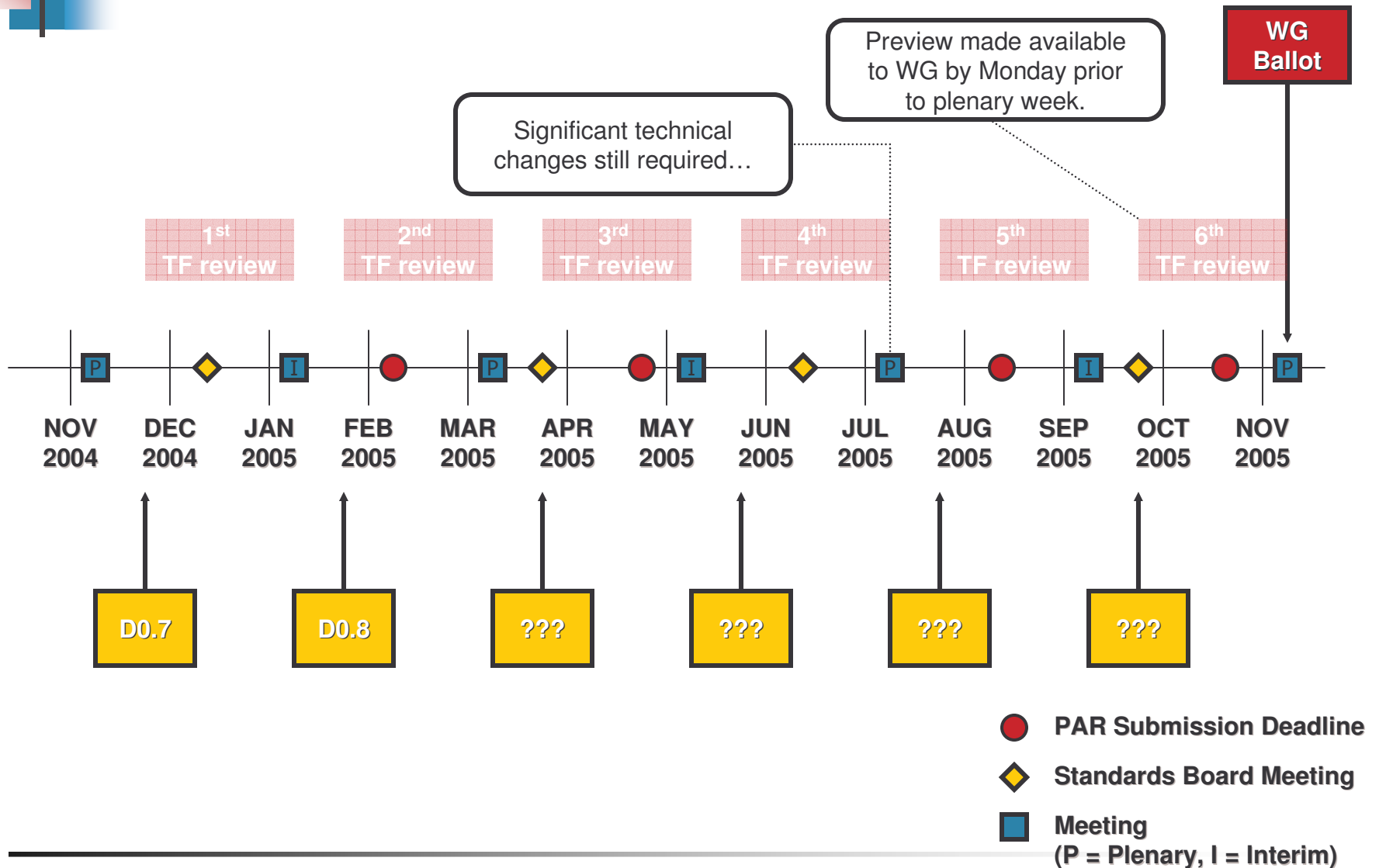
IEEE P802.3ap Timeline



Timeline Detail (Target)



“Plan B” Timeline (4 month slip)





Presentations...



Closing Business...



Ad Hoc Meeting Schedule

- TBD



Draft Schedule

■ TBD



“Big Ticket” Items

- TBD



Future Meetings

- May 2005 Interim
 - Date: TBD
 - Location: TBD

- Do we need a June interim?

- July 2005 Plenary
 - Date: TBD
 - Location: TBD



Adjourn

Thank You!