IEEE P802.3ap
Backplane Ethernet Task Force
Agenda and General Information

Nashua, NH
September 12, 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

Goals for this Meeting

- Respond to comments against IEEE P802.3ap Draft 2.0.

- Approve generation and recirculation of Draft 2.1

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
  - Charles Moore (*charles_moore@agilent.com*)

Reflector and Web

- To subscribe to the IEEE P802.3ap Backplane Ethernet Task Force reflector send an email to:

   listserv@ieee.org

   with the following in the <u>body of the message</u> (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:

  http://ieee802.org/3/ap/private/index.html

  - Username: XXXXXX
  - Password: XXXXXX

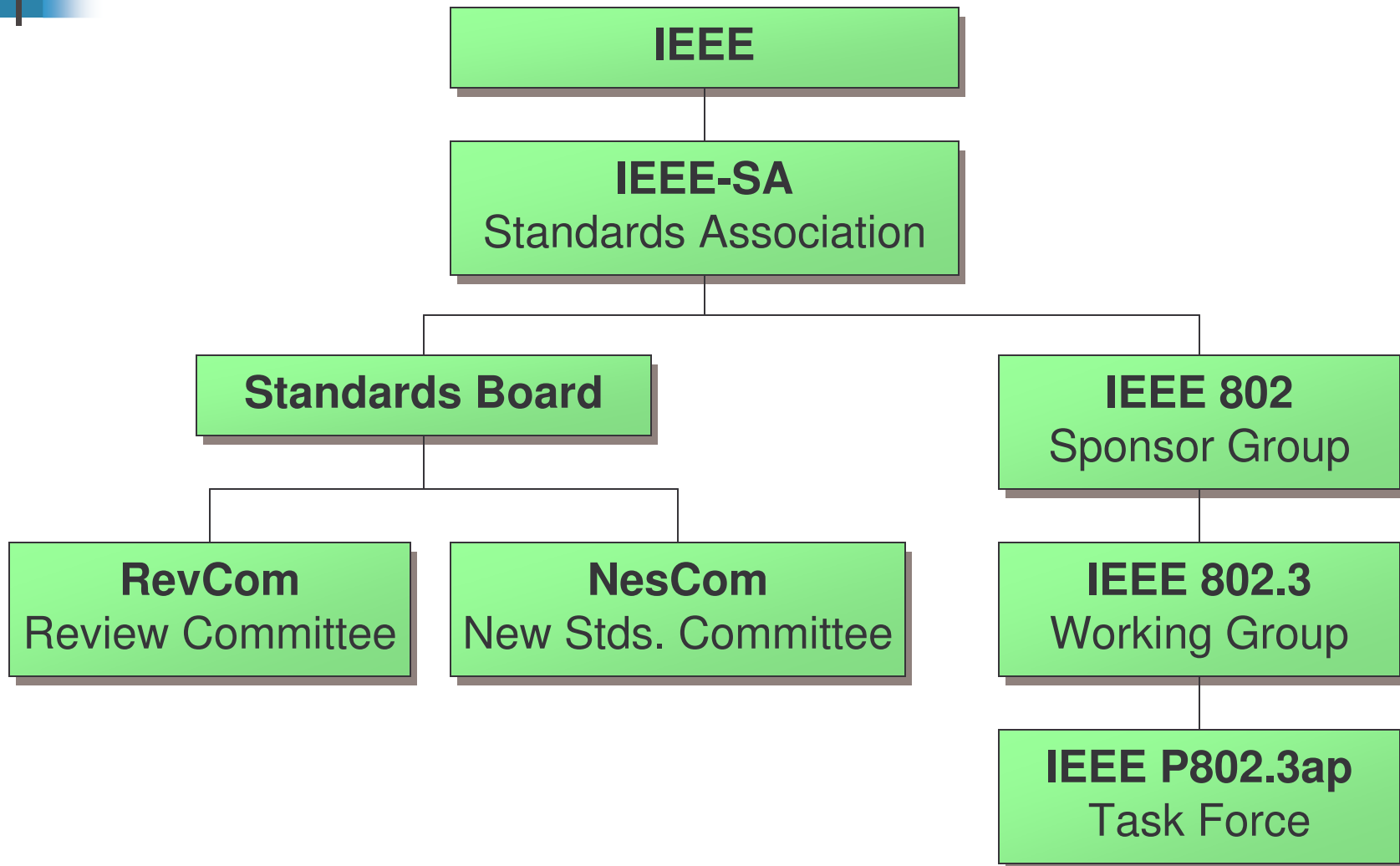- The username and password are case-sensitive. Write them down…

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

```
                        ┌──────────────────────┐
                        │        IEEE          │
                        └──────────┬───────────┘
                                   │
                        ┌──────────┴───────────┐
                        │       IEEE-SA        │
                        │ Standards Association│
                        └──────────┬───────────┘
                    ┌──────────────┴──────────────────┐
          ┌──────────────────┐              ┌──────────────────┐
          │ Standards Board  │              │     IEEE 802     │
          └─────────┬────────┘              │  Sponsor Group   │
                    │                       └─────────┬────────┘
          ┌─────────┴─────────┐                       │
 ┌──────────────┐   ┌──────────────────────┐ ┌──────────────────┐
 │   RevCom     │   │      NesCom          │ │   IEEE 802.3     │
 │Review        │   │ New Stds. Committee  │ │  Working Group   │
 │Committee     │   │                      │ └─────────┬────────┘
 └──────────────┘   └──────────────────────┘           │
                                              ┌──────────────────┐
                                              │  IEEE P802.3ap   │
                                              │    Task Force    │
                                              └──────────────────┘
```

References

- IEEE-SA Standards Board Operations Manual:

   http://standards.ieee.org/guides/opman/sb-om.pdf

- LAN/MAN Standards Committee (LMSC) Policies and Procedures:

   http://ieee802.org/policies-and-procedures.pdf

- IEEE 802.3 Working Group Operating Rules:

   http://ieee802.org/3/rules/P802_3_rules.pdf

Additional References

- IEEE-SA Operations Manual:

  http://standards.ieee.org/sa/sa-om-main.html

- IEEE Standards Association (IEEE-SA) Standards Board Bylaws:

  http://standards.ieee.org/guides/bylaws/index.html

- Overview and Guide to LMSC:

  http://ieee802.org/802%20overview.pdf

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:
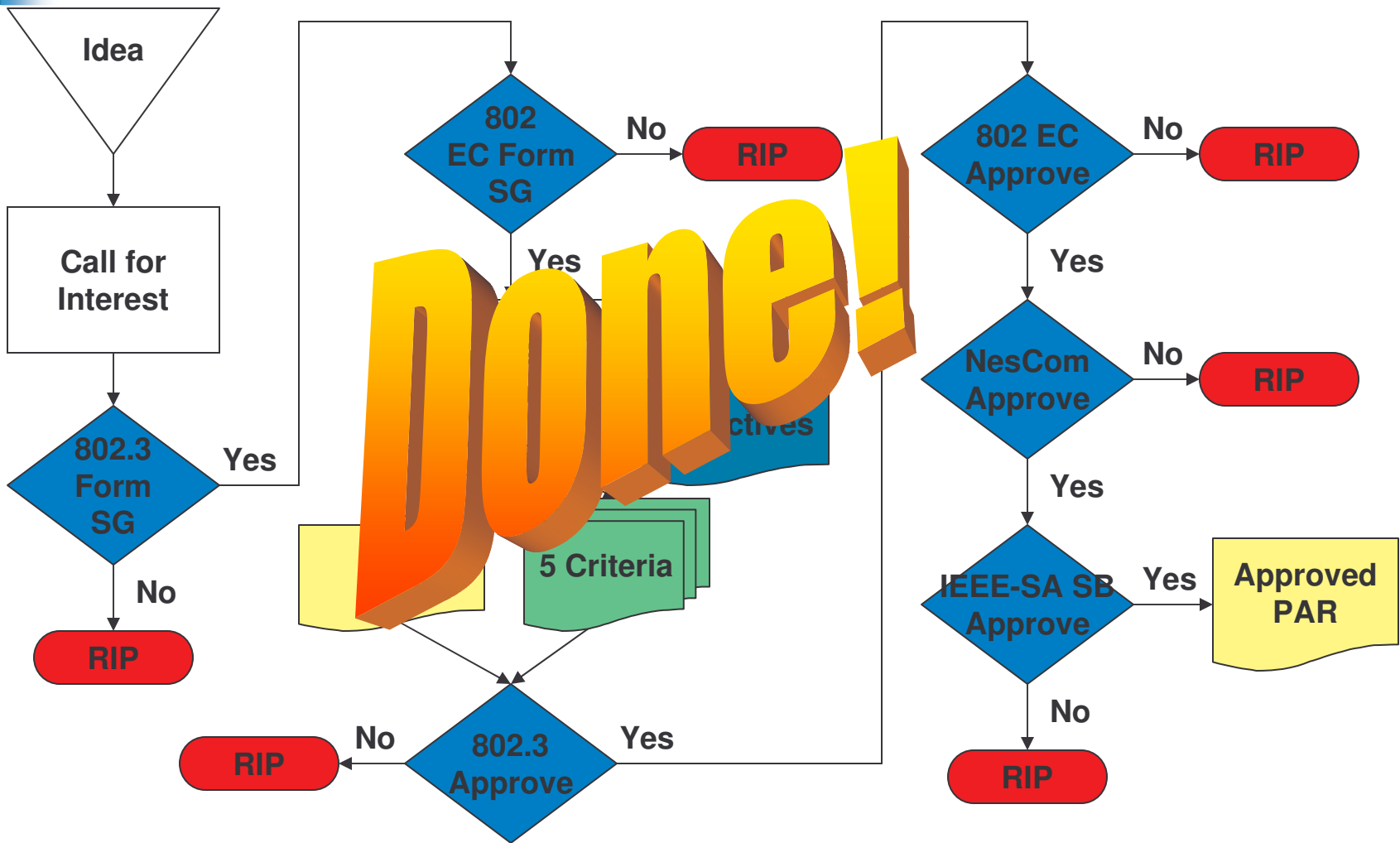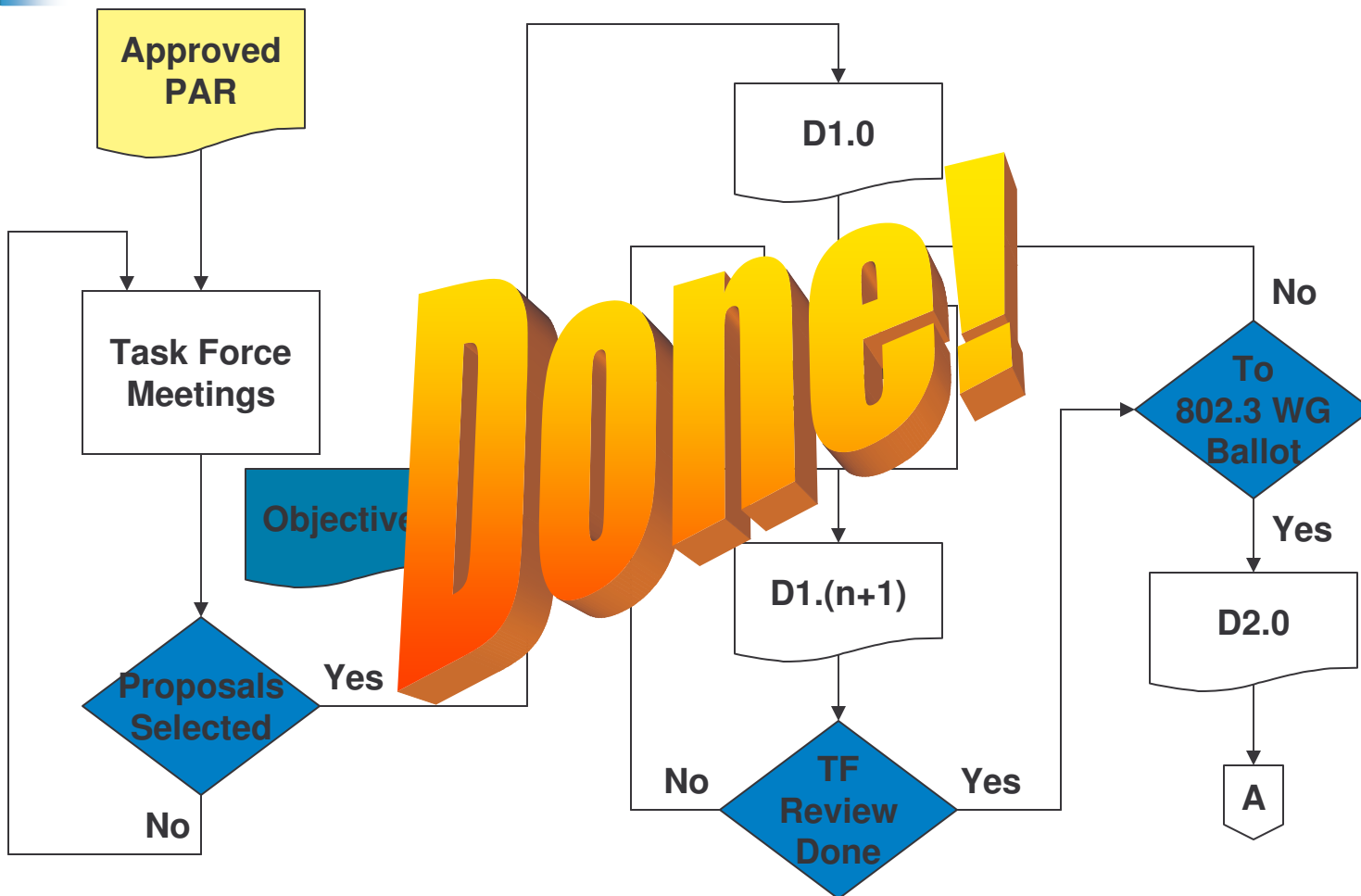**patcom@ieee.org**
or visit
http://standards.ieee.org/board/pat/index.html

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)

IEEE Standards Process

Idea

Call for Interest

802.3 Form SG

Yes

No

RIP

802 EC Form SG

No → **RIP**

Yes

802 EC Approve

No → **RIP**

Yes

NesCom Approve

No → **RIP**

Yes

IEEE-SA SB Approve

Yes → **Approved PAR**

No

RIP

5 Criteria

802.3 Approve

No → **RIP**

Yes

IEEE Standards Process (cont.)

IEEE Standards Process (cont.)

You are here...

IEEE Standards Process (cont.)

B

LMSC Sponsor Ballot

> 75 % — No → **RIP**

Yes

Comments — No

Yes

D3.(n+1)

D3.n

802.3 Forward to RevCom — No → B

Yes

EC Forward to RevCom — No → B

Yes

RevCom Review

RevCom Approval — No → B

Yes

IEEE-SA SB Approval — No → **RIP**

Yes

Std
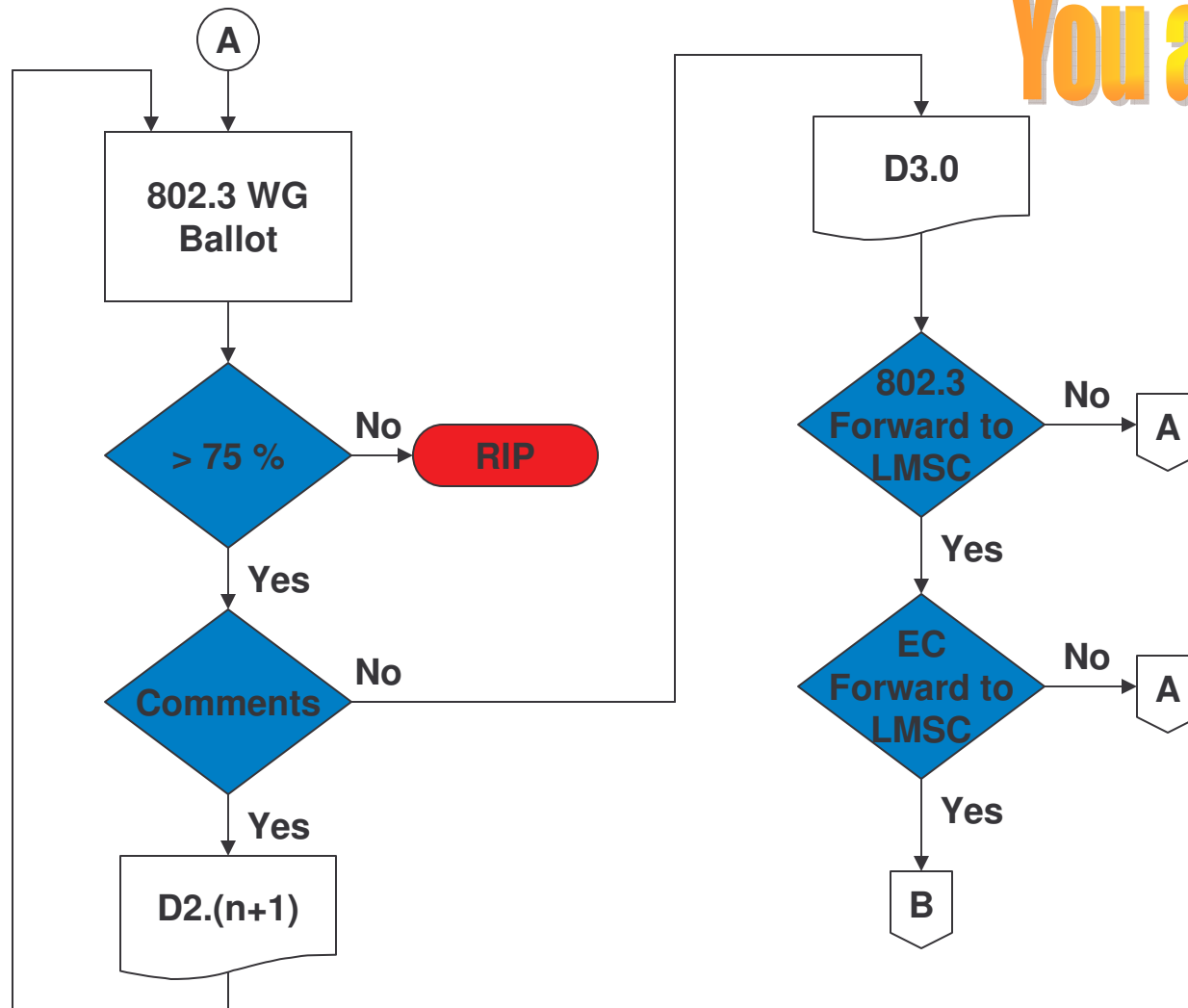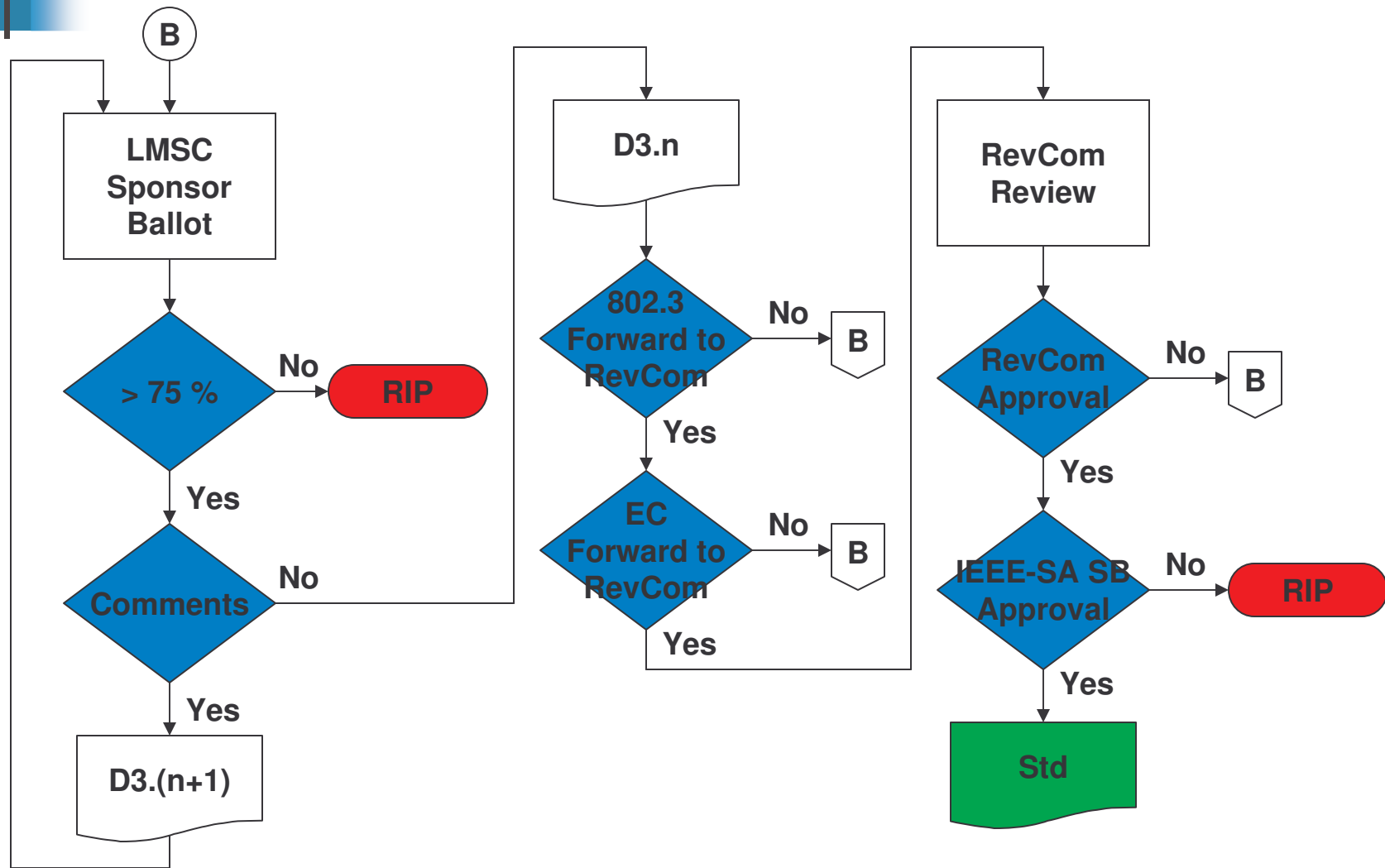
IEEE P802.3ap Task Force Documents

- Approved PAR

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

- 5 Criteria

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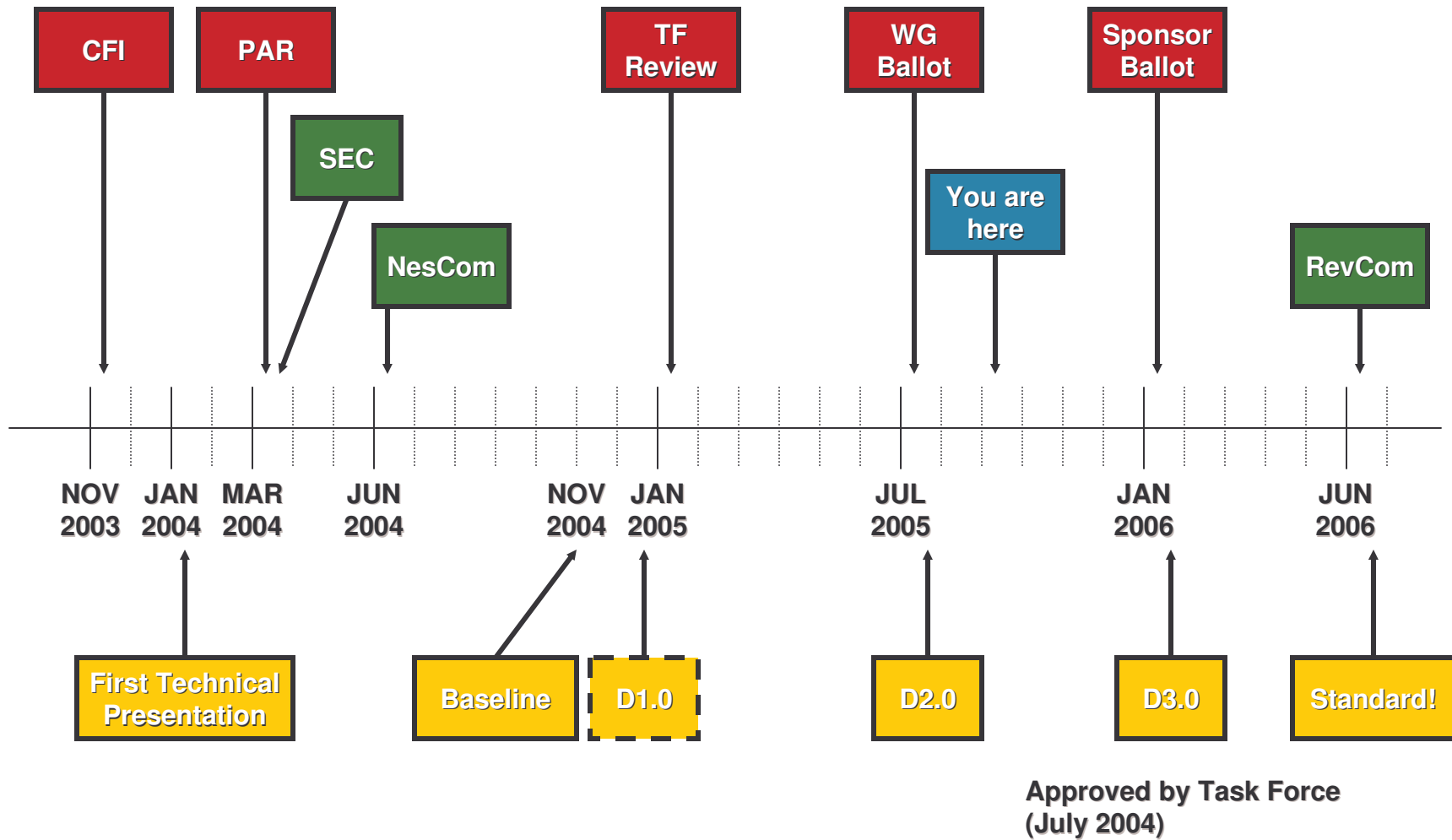
- Objectives

  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

CFI — PAR — SEC — NesCom — TF Review — WG Ballot — You are here — Sponsor Ballot — RevCom

NOV 2003 — JAN 2004 — MAR 2004 — JUN 2004 — NOV 2004 — JAN 2005 — JUL 2005 — JAN 2006 — JUN 2006

First Technical Presentation — Baseline — D1.0 — D2.0 — D3.0 — Standard!

Approved by Task Force (July 2004)

Presentations (in no particular order)

- Belogolovy et al., "Forward Error Correction Proposal for 10G Backplane Ethernet"

- Szczepanek, "10GBASE-KR PCS"

- Abler and Brink, "Enhancements to Initialization Procedure"

- Liu, "10GBASE-KR Transmit Equalizer Tap Range and Resolution"

- D'Ambrosia, "Thoughts on IEEE 802.3ap Draft 2.0 Comments #128 and #129"

- Sawyer, "Measured RX Interference Tolerance Results"

- Brown, "Measured RX Interference Tolerance Results"

- Healey, "Transmitter Output Waveform Requirements"

- Anderson, "DC Balance Considerations in 10GBASE-KR"

- Brink, "Determination of the 10GBASE-KR Transmit Tap Default Setting"

- Moore, "Thoughts on Comments 103, 105, and 106"

- Moore, "Proposed Responses to Comments against Annex 69A"

Closing Business…

Future Meetings

- ## October 2005 Interim???

- ## November 2005 Plenary
  - Date: November 13-18
  - Location: Hyatt Regency Vancouver, BC, Canada

Adjourn

Thank You!