



IEEE P802.3an Task Force (10GBASE-T)

Agenda and General Information

Long Beach, CA

May 25, 2004

Brad Booth, Task Force Chair

Please Put Cell Phones on Stun!!



Agenda

- **Welcome**
- **Recording Secretary:**
- **Introductions**
- **Approval of the Minutes (January & March '04)**
- **Goals for this Meeting**
- **Reflector and Web**
- **Ground Rules**
- **IEEE**
 - **Structure**
 - **Bylaws and Rules**
 - **Call for Patents**
 - **IEEE Standards Process**
- **Liaison Letters**
- **Presentations**
- **Future Meetings**
- **Motion Madness**

Goals for this Meeting

- **Raison d'être**
 - To develop Draft D1.0
- **Hear presentations concerning:**
 - Technical proposals for developing a baseline

Reflector and Web

- To subscribe to any of the 10GBASE-T reflectors send an email to:

listserv@ieee.org

with the following in the body of the message:

[subscribe stds-802-3-10GBT <your name>](#)

[subscribe stds-802-3-10GBT-Modeling <your name>](#)

[subscribe stds-802-3-10GBT-Cabling <your name>](#)

for example:

[subscribe stds-802-3-10GBT Brad Booth](#)

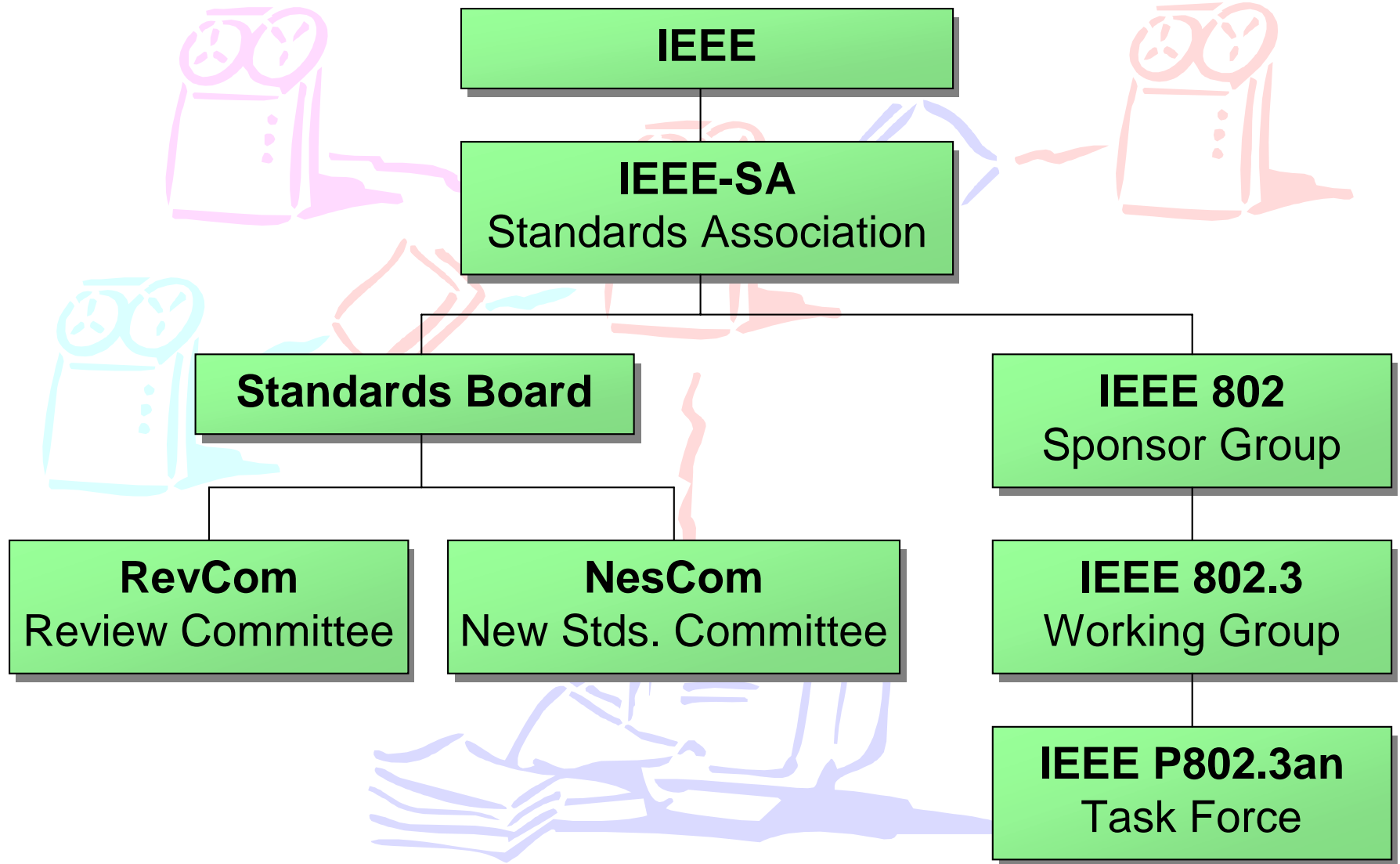
Uses the email address from the header information!!

- P802.3an Task Force web page URL:
<http://www.ieee802.org/3/an/>

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*](http://standards.ieee.org/sa/sa-bylaws.pdf)

- Bylaws of the IEEE-SA Standards Board:

[*http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf*](http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf)

- IEEE LAN/MAN Standards Committee (LMSC) Operating Rules:

[*http://www.ieee802.org/rules.pdf*](http://www.ieee802.org/rules.pdf)

- IEEE 802.3 Working Group Operating Rules:

[*http://www.ieee802.org/3/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 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 February 2004)

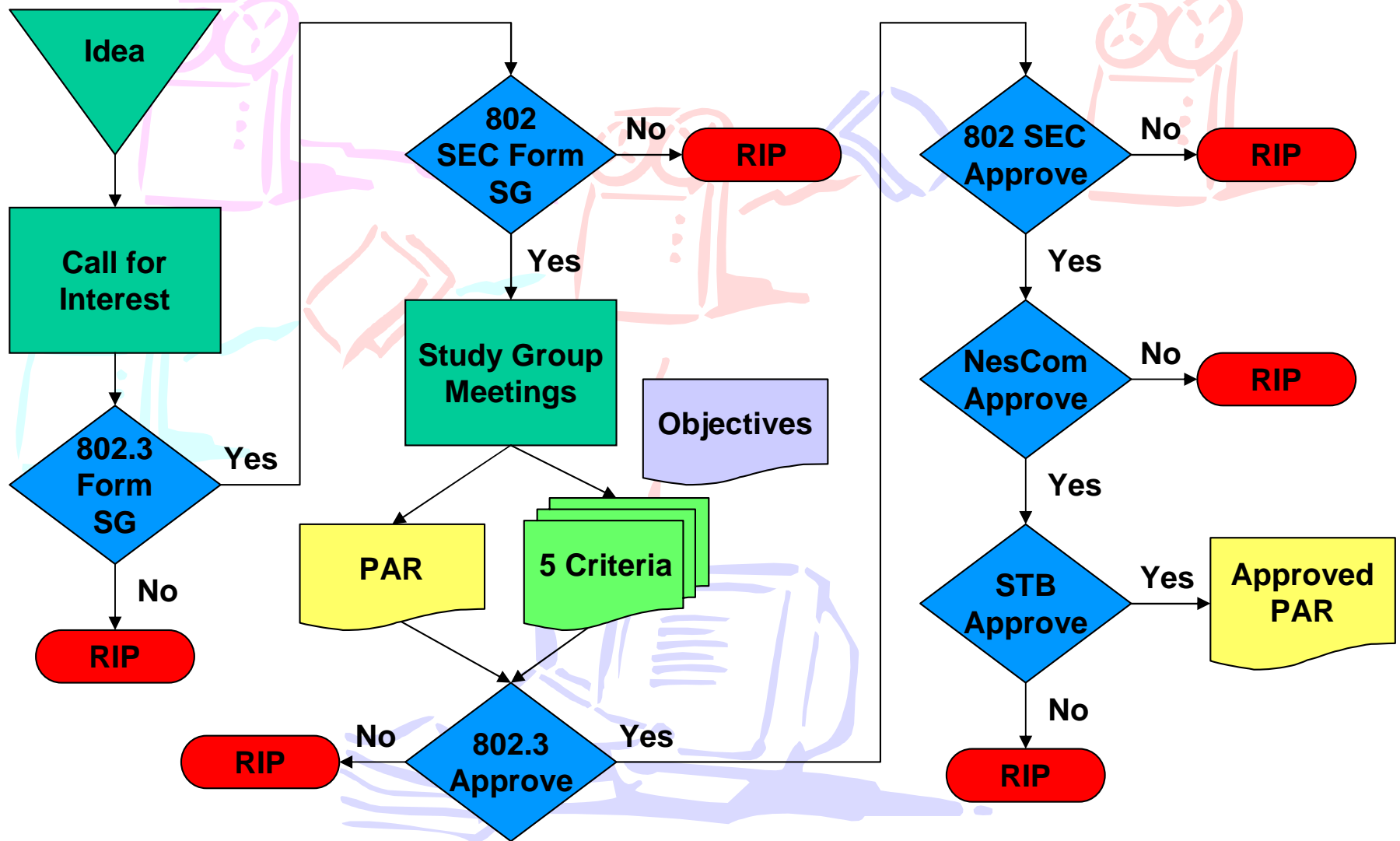
Inappropriate Topics for IEEE WG Meetings

- **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.**

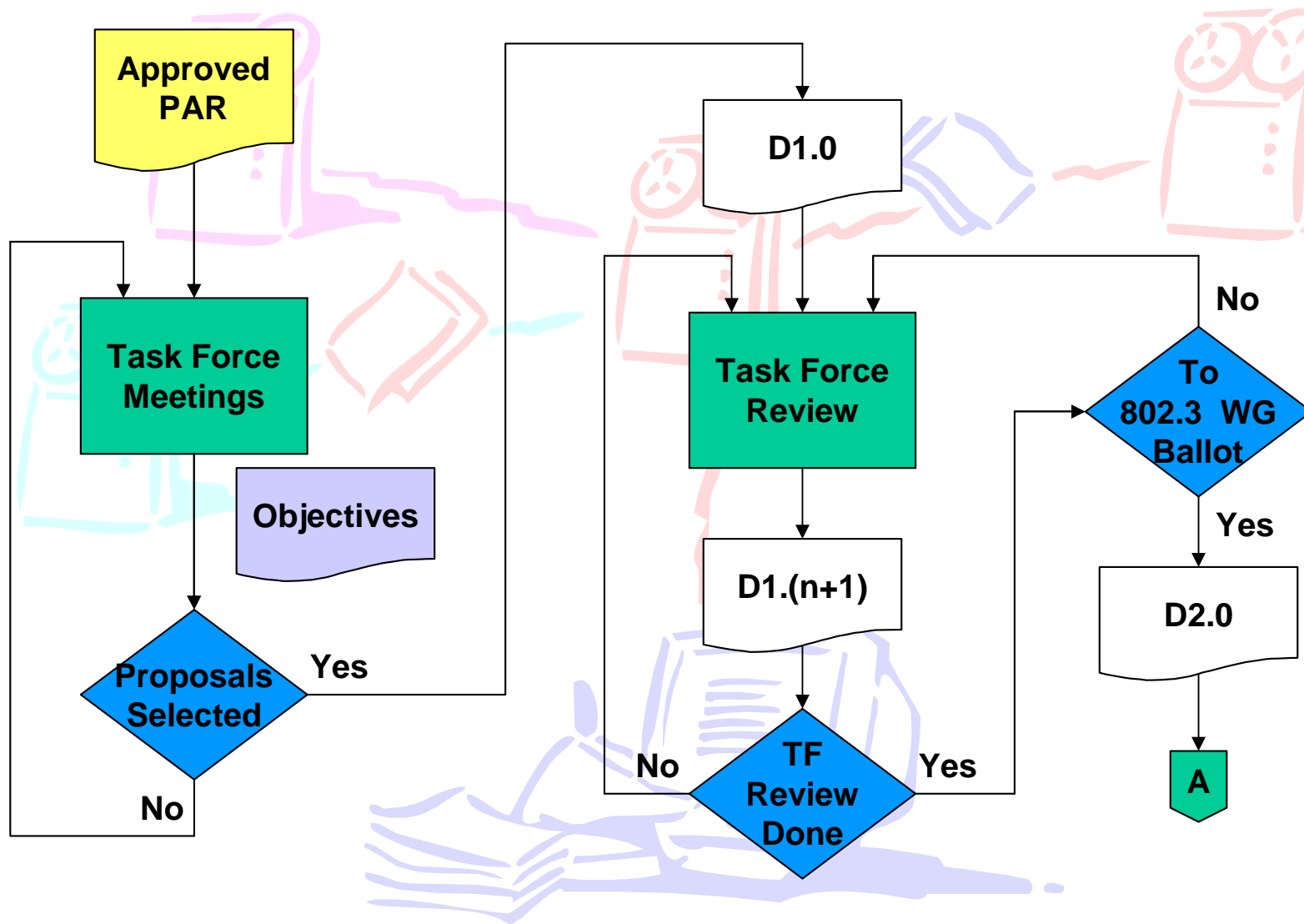
If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/board/pat/index.html>

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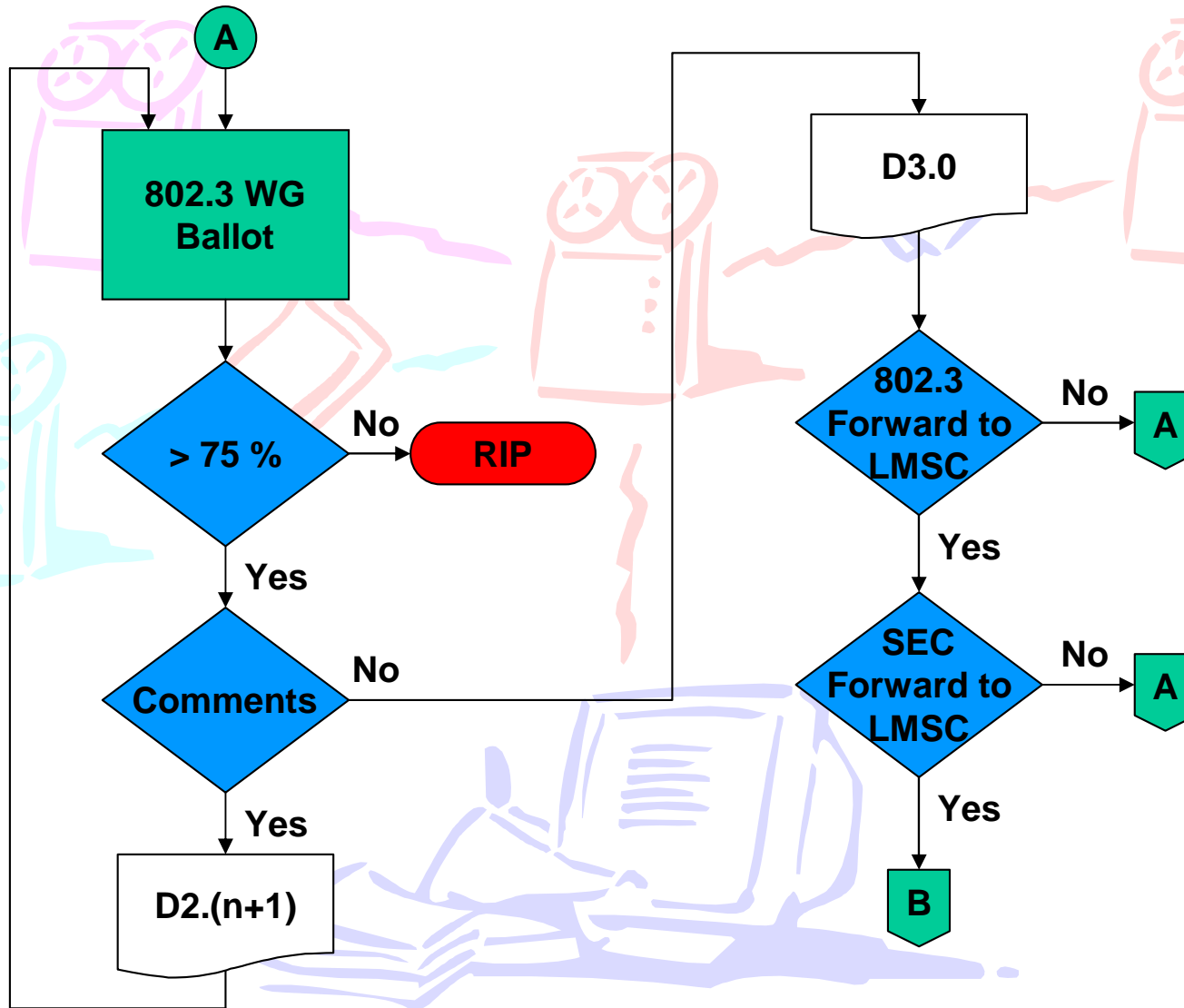
IEEE Standards Process



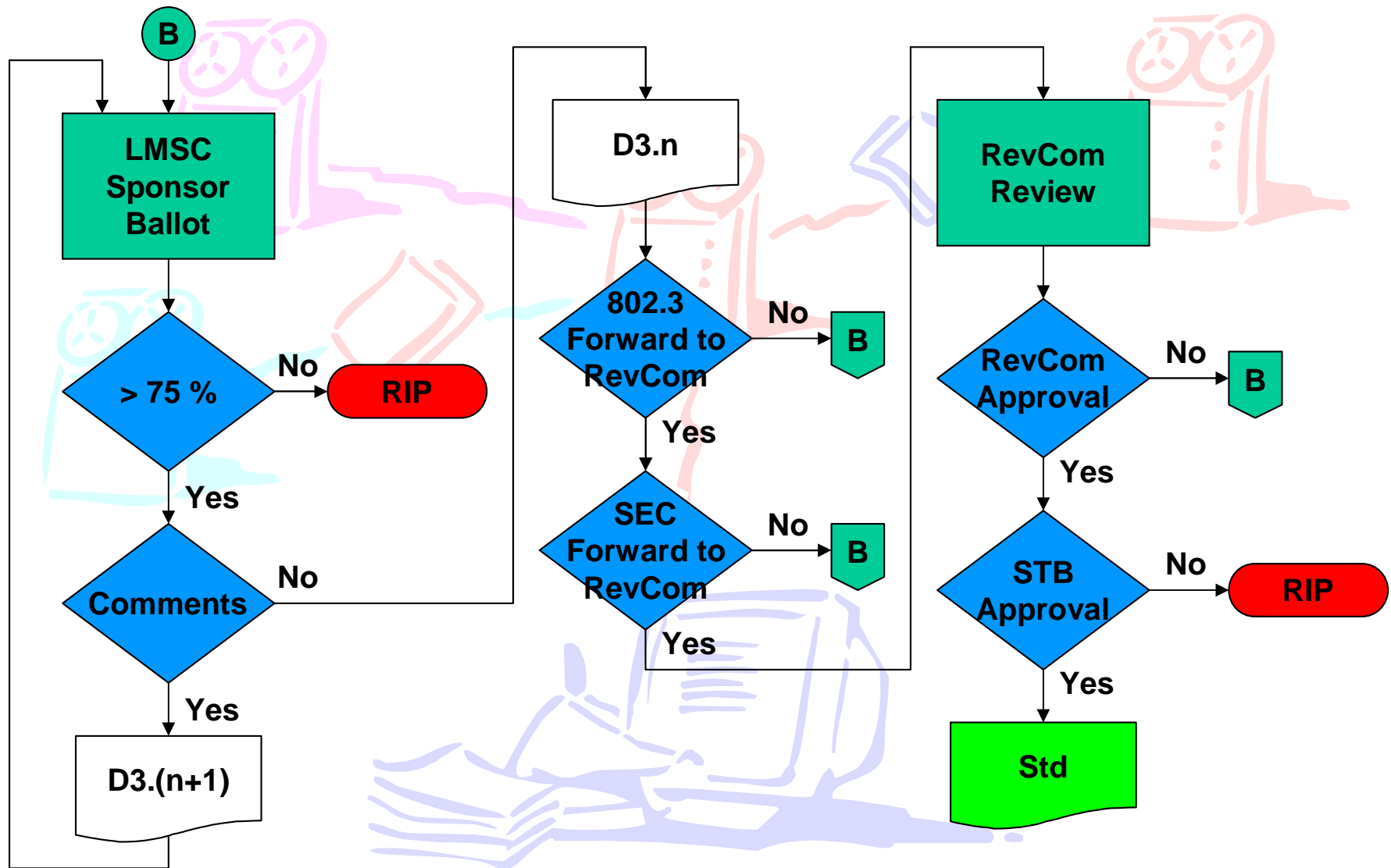
IEEE Standards Process (cont.)



IEEE Standards Process (cont.)



IEEE Standards Process (cont.)



P802.3an Objectives

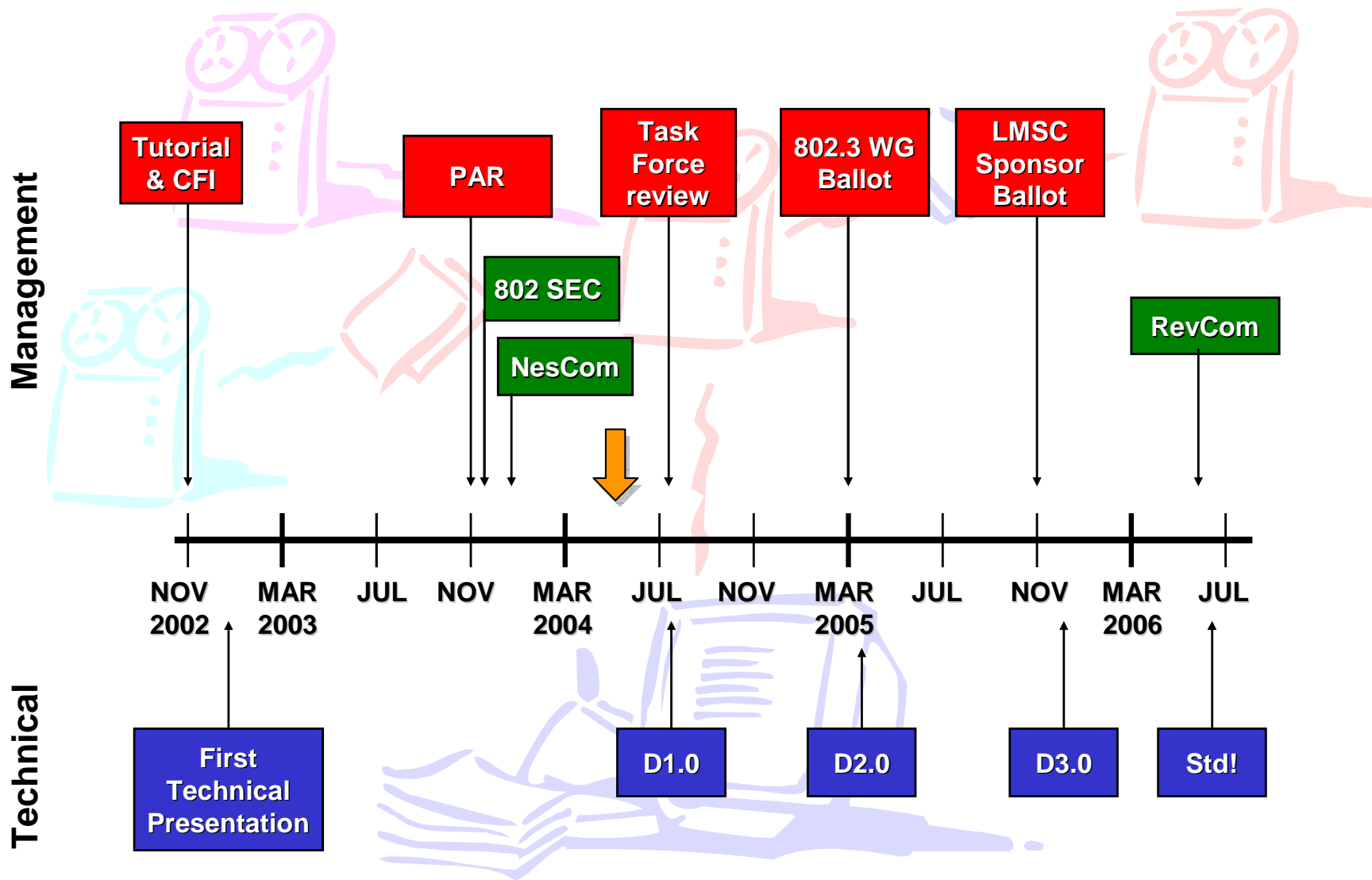
- **Preserve the 802.3/Ethernet frame format at the MAC Client service interface**
- **Preserve min. and max. frame size of current 802.3 Std.**
- **Support full duplex operation only**
- **Support star-wired local area networks using point-to-point links and structured cabling topologies**
- **Support a speed of 10.000 Gb/s at the MAC/PLS service interface**
- **Select copper media from ISO/IEC 11801:2002, with any appropriate augmentation to be developed through work of 802.3 in conjunction with SC25/WG3**
- **Support Clause 28 auto-negotiation**
- **Support coexistence with 802.3af**
- **To not support 802.3ah (EFM) OAM unidirectional operation**
- **Meet CISPR/FCC Class A**

P802.3an Objectives (cont.)

- Support operation over 4-conductor structured 4-pair, twisted-pair copper cabling for all supported distances and Classes
- Define a single 10 Gb/s PHY that would support links of:
 - At least 100 m on four-pair Class F balanced copper cabling
 - At least 55 m to 100 m on four-pair Class E balanced copper cabling
- Support a BER of 10^{-12} on all supported distances and Classes



10GBASE-T Timeline



Liaison Letter & Ad Hoc Reports

- **Liaison from ISO/IEC JTC 1 / SG 25 / WG 3**
 - None at this meeting
- **Liaison from TIA TR42**
 - Presentation from Val Rybinski
- **Editor's report**
- **Ad hoc reports**
 - None



Presentations

- Di Minico, Chris; “Clause 55 - Link Segment Baseline Proposal”
- Dinh, Thuyen; “Updates: Test Data for 10GBase-T Magnetics”
- Vaden, Sterling; “10G Link Segment Performance Specification: Primary Parameters”
- Cobb, Terry; “NEXT Requirement for New Cabling”
- Larsen, Wayne; “NEXT and Alien NEXT of Connectors”
- Vaden, Sterling; “Connector ANEXT vs. Internal NEXT”
- Gupta, Sandeep; “10GBASE-T Transmitter Key Specifications”
- Takatori, Hiroshi; “DFE Bound Calculation for Line Code Alternatives –Uncoded System-”
- Jones, Williams; “Receiver-Based Equalization for 10GBASE-T”
- Babanezhad, Joseph; “10GBASE-T PAM5 Line Signaling”
- Higuchi, Tetsuya; “Refinement of OFDM signaling method for 10GBASE-T”
- Ungerboeck, Gottfried; “Achievable Bit Rates and Choice of Modulation Rate for 10GBASE-T”

Presentations (cont.)

- **Rao, Sailesh; “Update on the LDPC 4D-PAM8 Proposal”**
- **McClellan, Brett; “PHY Proposal for 10GBASE-T: Encoding, Mapping & Framing”**
- **Tellado, Jose; “10GBASE-T PHY Proposal”**
- **Seki, Katsutoshi; “PHY Proposal for 10GBASE-T”**
- **Zimmerman, George; “Downside of TH Precoding”**
- **Powell, Scott; “Multi-Vendor Agreement on Precoder Proposal”**

Future Meetings

- **July 2004 Plenary:**
 - Week of the 12th
 - Portland, OR
 - Embassy Suites
- **September 2004 Interim:**
 - In the words
 - Prospective host: Tyco
 - Location: Hershey, PA

Motion Madness



Motion

- Move that
- M: S:
- Technical (>75%)/Procedural (>50%)
- TF Voters: Y: N: A:
- 802.3 Voters: Y: N: A:
- **PASSES/FAILS**

Adjourn

