

# Power over Ethernet Plus 802.3 Study Group Agenda and General Information

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March 16 & 17, 2005

IEEE 802.3 PoEP SG  
Atlanta Plenary

# Agenda

- Introductions
- Appoint Recording Secretary
- Background stuff (IEEE rules, Web, e-mail and other SG stuff)
- Presentations
- Review of CFI & Vancouver
- Motions

# Ground Rules

- **Mutual Respect**
- All may speak
- All may vote
- No product pitches
- No corporate pitches
- No restrictions on presentations or materials
- No prices  
no cost in any currency, complexity is OK
- 802.3 rules apply

# 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.

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**Slide #1** 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](mailto:patcom@ieee.org) or visit <http://standards.ieee.org/board/pat/index.html>**

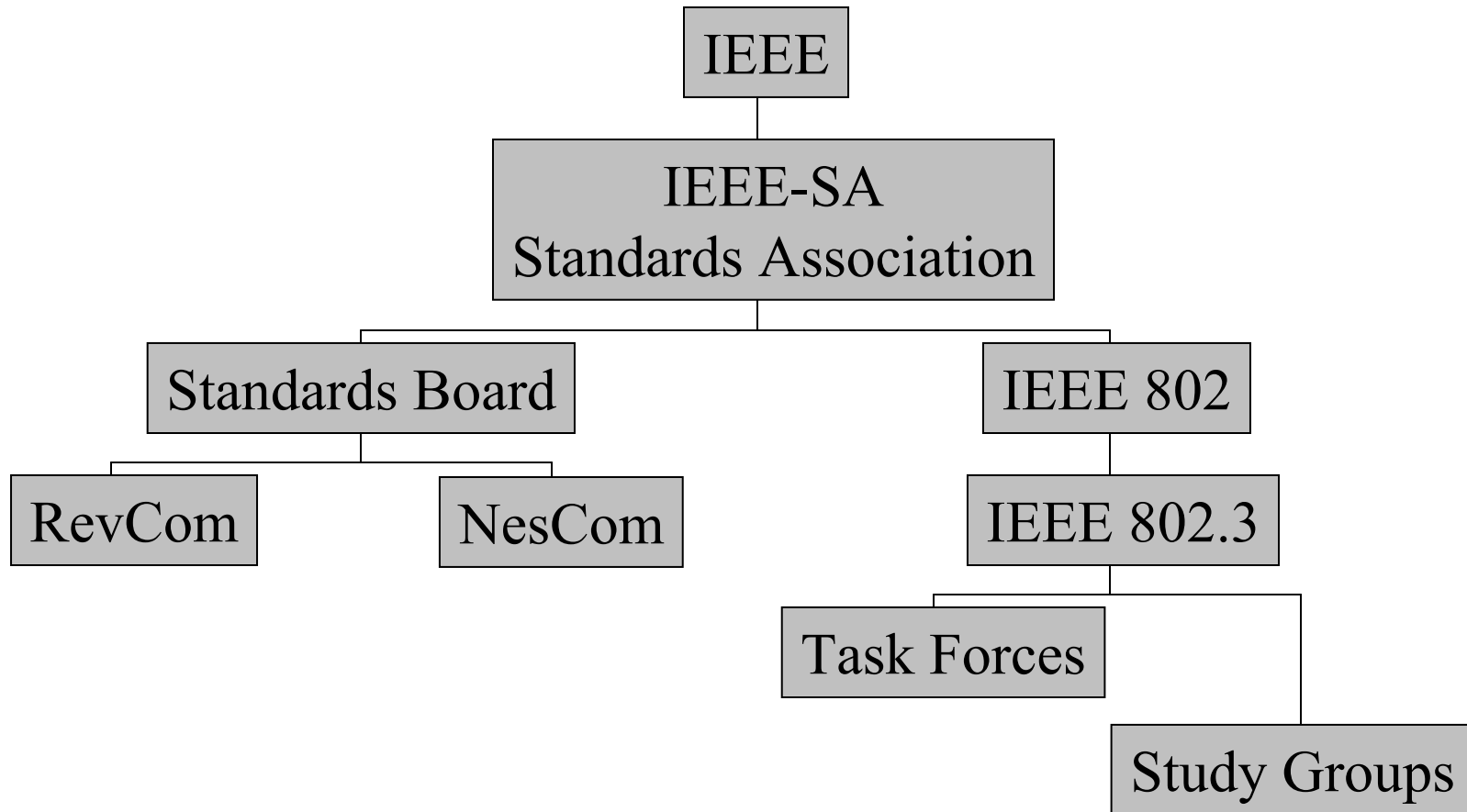
This slide set is available at <http://standards.ieee.org/board/pat/pat-slideset.ppt>

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**Slide #2** Approved by IEEE-SA Standards Board – Atlanta Plenary March 2003 (Revised December 2004)

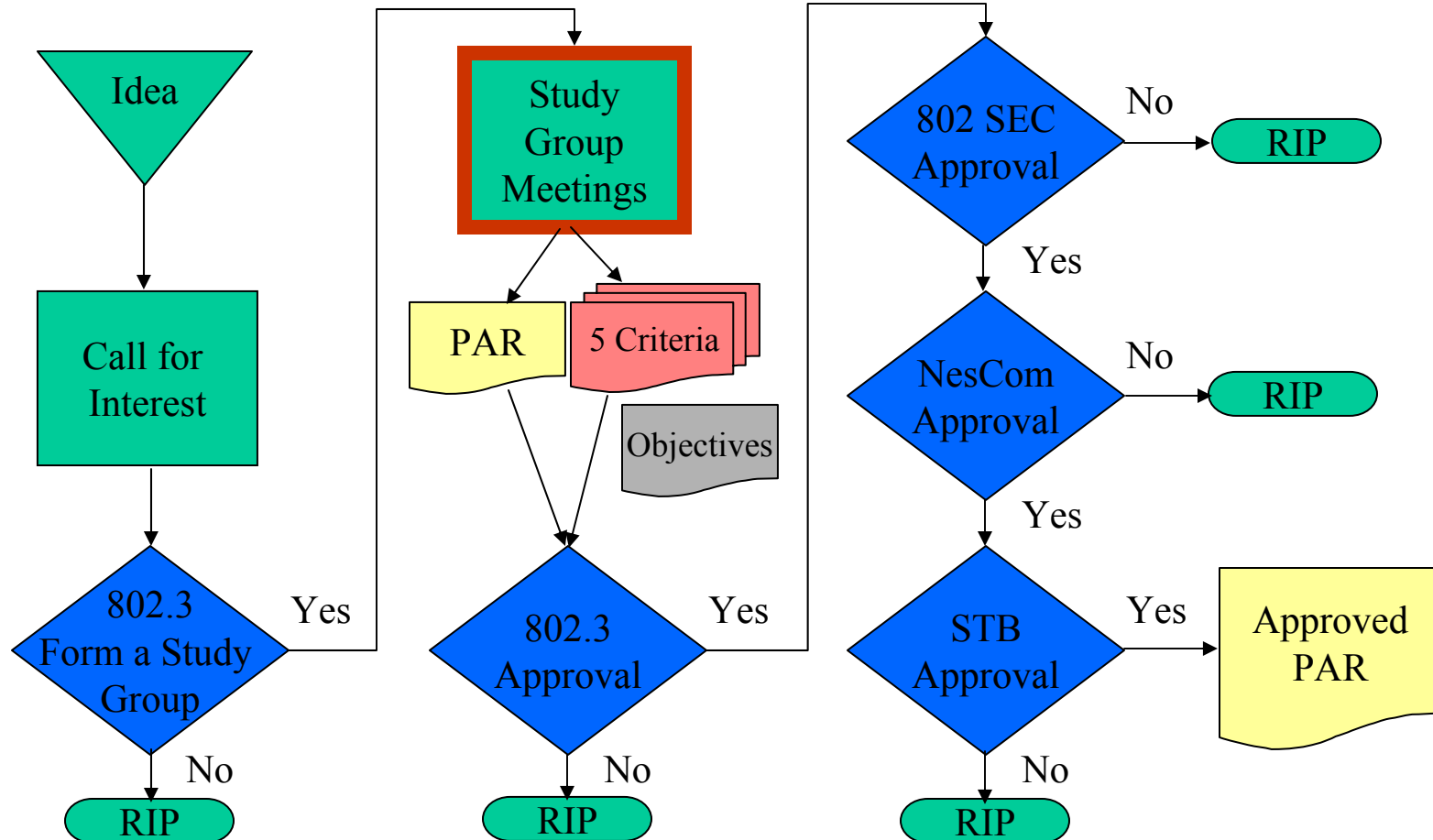
# IEEE Structure



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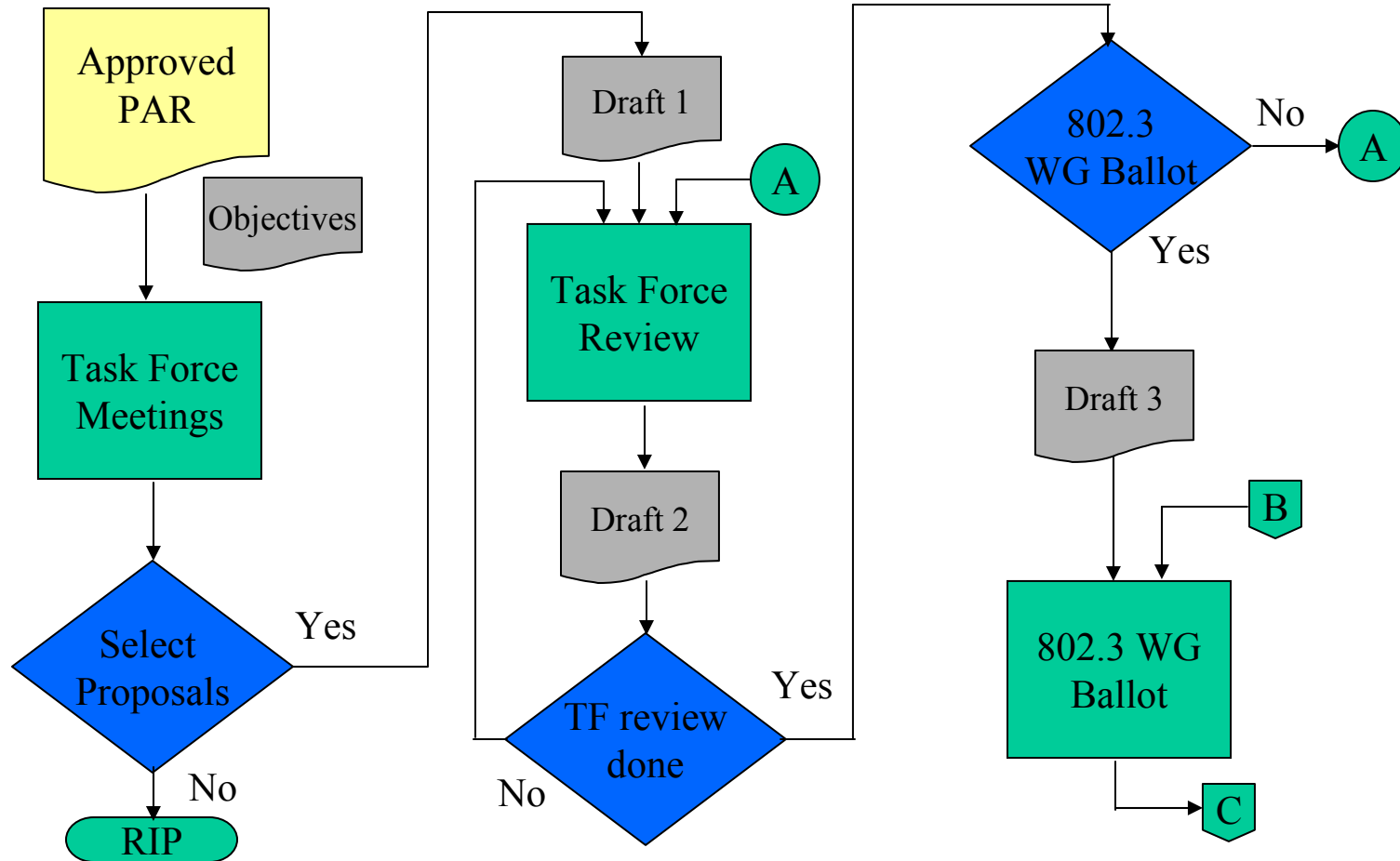
# IEEE Standards Process



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# IEEE Standards Process

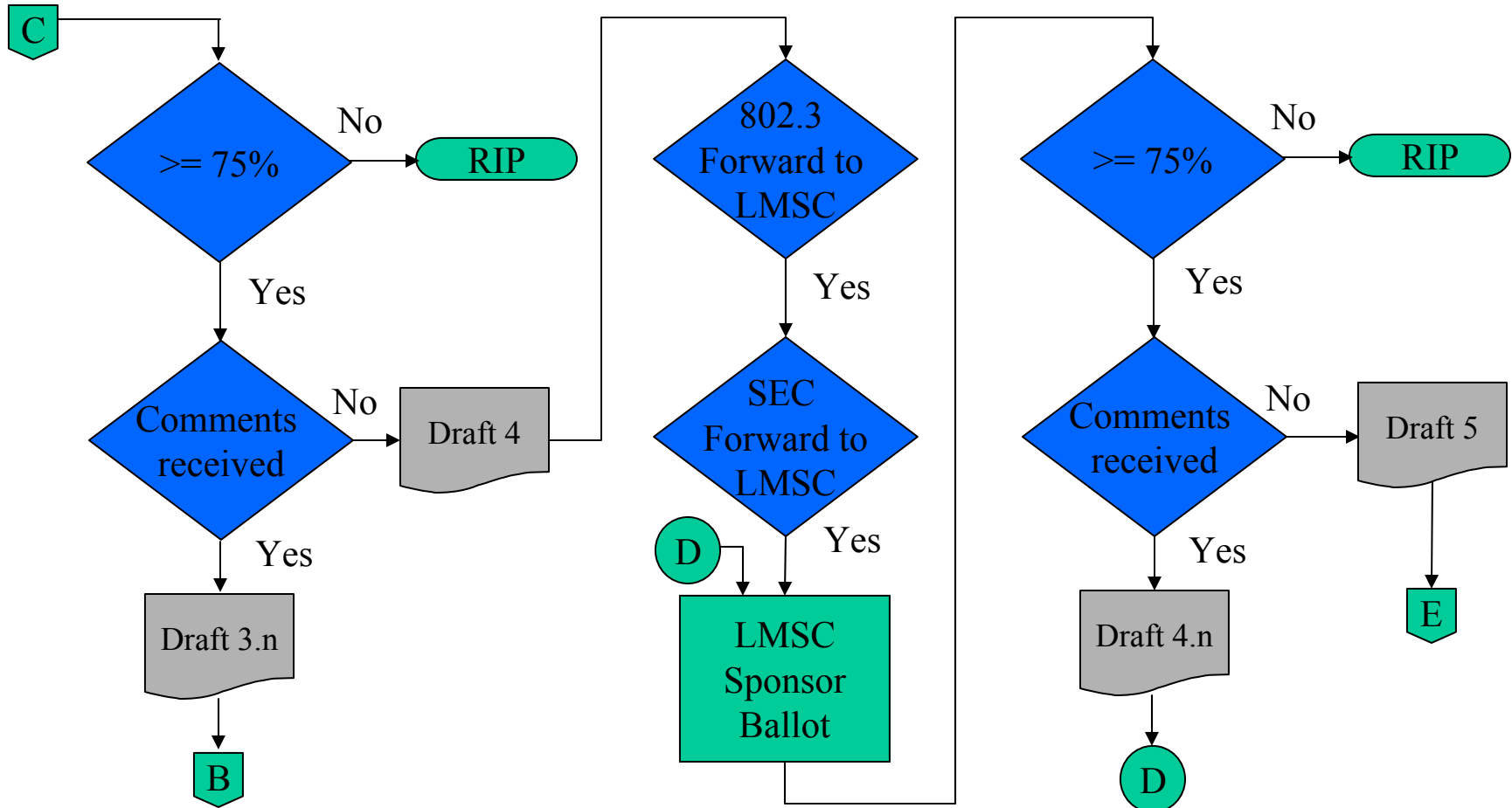


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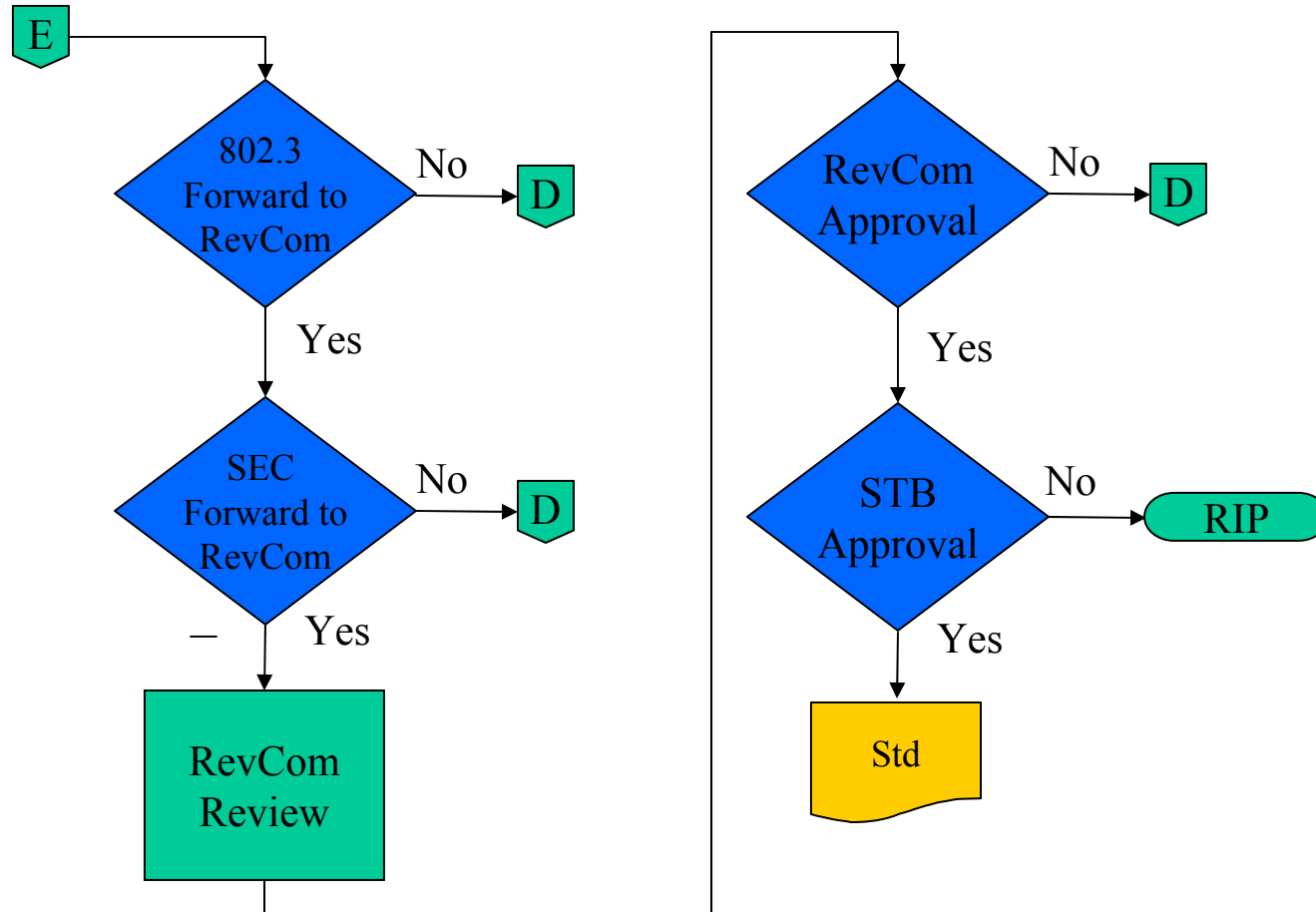
# IEEE Standards Process



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# IEEE Standards Process



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# Rules

- Bylaws of the IEEE Standards Association:  
<http://standards.ieee.org/sa/>
- Bylaws of the IEEE Standards Association:  
<http://standards.ieee.org/board/index.html>
- IEEE 802 operating rules  
<http://www.ieee802.org/>
- IEEE 802.3 operating rules  
<http://www.ieee802.org/3/>
- Roberts rules of order

# Rules (Condensed)

- Follow the “Ground Rules”
- A Study Group exists to create a PAR, 5 Criteria and objectives → some research on topic.
- A Study Groups exists from Plenary to Plenary → become a TF, get extension approval or die.
- Everything in the structure chart approve the TF → do a good job on bullet 2.
- A Study Group does not write a spec or select a solution.

# Website

- Web address

[http://www.ieee802.org/3/poep\\_study/index.html](http://www.ieee802.org/3/poep_study/index.html)

- Next meeting – watch:

<http://www.ieee802.org/meeting/index.html>

# E-mail

- Subscribing - Send an e-mail to

ListServ@ieee.org

containing the body text

subscribe stds-802-3-poep <yourfirstname>  
<yourlastname>

- Sending:

stds-802-3-poep@ieee.org

# PAR

- Sent to NesCom to authorize the development of a standard.
- Largely legalistic document.
- Example – 10GBase-T:

[http://grouper.ieee.org/groups/802/3/...  
10GBT/public/nov03/par\\_2\\_1103.pdf](http://grouper.ieee.org/groups/802/3/...10GBT/public/nov03/par_2_1103.pdf)

# 5 Criteria

- Sent to 802 to authorize the development of a standard.
- Some legal content some useful content



# 5 Criteria

## Broad Market Potential

- Broad set(s) of applications.
- Multiple vendors, multiple users.
- Balance cost, LAN vs. attached stations.

# 5 Criteria

## Compatibility with IEEE Standard 802.3

- Conformance with CSMA/ CD MAC, PLS.
- Conformance with 802.2.
- Conformance with 802 Functional Requirements.

# 5 Criteria

## Distinct Identity

- Substantially different from other 802.3 specifications/ solutions.
- Unique solution for problem (not two alternatives/ problem).
- Easy for document reader to select relevant spec.

# 5 Criteria

## Technical Feasibility

- Demonstrated feasibility; reports - - working models.
- Proven technology, reasonable testing.
- Confidence in reliability.

# 5 Criteria

## Economic Feasibility

- Cost factors known, reliable data.
- Reasonable cost for performance expected.
- Total Installation costs considered.

# Objectives

- Sent to 802.3 WG to authorize the development of a standard.
- Bounds the scope of the work to be done.
- Very much pure content with a little legal wording.

# Liason

- ISO / IEC

# Presentations

- Hinrichs\_0305.pdf
- Nordin\_0305\_2.pdf
- Darshan\_0305\_3.pdf
- Nordin\_0305\_1.pdf
- Dupuis\_0305.pdf
- Darshan\_0305\_1.pdf
- Darshan\_0305\_2.pdf
- Ellsworth\_0305.pdf
- Diamond\_0305.pdf
- Peker\_0305.pdf

CD and USB drive are circulating



# CFI Promises

- High Power - to the limits of the physics
- Interoperation with 802.3 and other standards
- Power redundancy management at the port level
- Power Forwarding
- Distinction between 802.3af PD's and high power PD's
- New PDs will indicate to the user they are attached to a legacy PSE
- Enhancements as may come before the committee

# Objective 1

- PoePlus will enhance 802.3af and work within its framework – there will be no new clause.

# Objective 2

- The target infrastructure for PoEPlus will be ISO/IEC 11801-1995 Class D or higher systems. Further we will not cause a safety issue for a legacy installation conformant to ISO/IEC 60950.

# Objective 3

- IEEE STD 802.3 will continue to comply to the limited power source and SELV requirements as defined in ISO/IEC 60950.

# Objective 4

- The PSE shall operate all modes of IEEE STD 802.3af as well as enhanced modes.

# Objective 5

- The enhanced standard will provide the maximum power to the PD as allowed within practical limits.

# Objective 6

- PoEPlus shall support a minimum of 30 Watts of power at the PD PI.

# Objective 7

- PoEPlus PDs, when connected to a legacy 802.3af PSE, will provide the user an indication that a PoEPlus PSE is required. This indication is in addition to any optional management indication that may be provided.



# Objective 8

- Able to meet FCC / CISPR Class A. and B with data for all supported PHYs.

# Objective 9

- Research potential extension of power classification to support PoEPlus modes.

# Objective 10

- Research the operation of midspan PSEs for 1000BASE-T.

# Objective 11

- Research the operations of midspan and endpoint PSEs for 10GBASE-T including providing cable heating data for evaluation by IEEE P802.3an.

# Motions

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