

Agenda and General Information

IEEE 802.3
100 Gb/s Backplane and Copper Cable
Study Group

John D'Ambrosia
Force10 Networks
Singapore, March 2011

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Jan 11 Minutes
- Goals for this Meeting
- Reflector and Web
- Ground Rules
- IEEE
 - Structure
 - Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Liaisons and Communications
- Review of Action Items from Jan 2011 Mtg
- Presentations
- Motions and Closing Business
- Future Meetings

Task Force Decorum



- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (2007 SASB Op Manual 5.3.3.5)
- Photography or recording by permission only (5.3.3.4)
- Cell phone ringers off
- Wear your badges at all times in meeting areas

Goals for the Week

- Hear presentations related to Objectives and 5 Criteria
- Start developing consensus on Objectives
- Lay the ground work for the next meeting

Reflector and Web

- To subscribe to the 100GCU reflector, send an email to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

*subscribe stds-802-3-100GCU <yourfirstname> <yourlastname>
end*

- Send 100GCU reflector messages to:

STDS-802-3-100GCU@listserv.ieee.org

- Task Force web page URL:

<http://www.ieee802.org/3/100GCU/index.html>

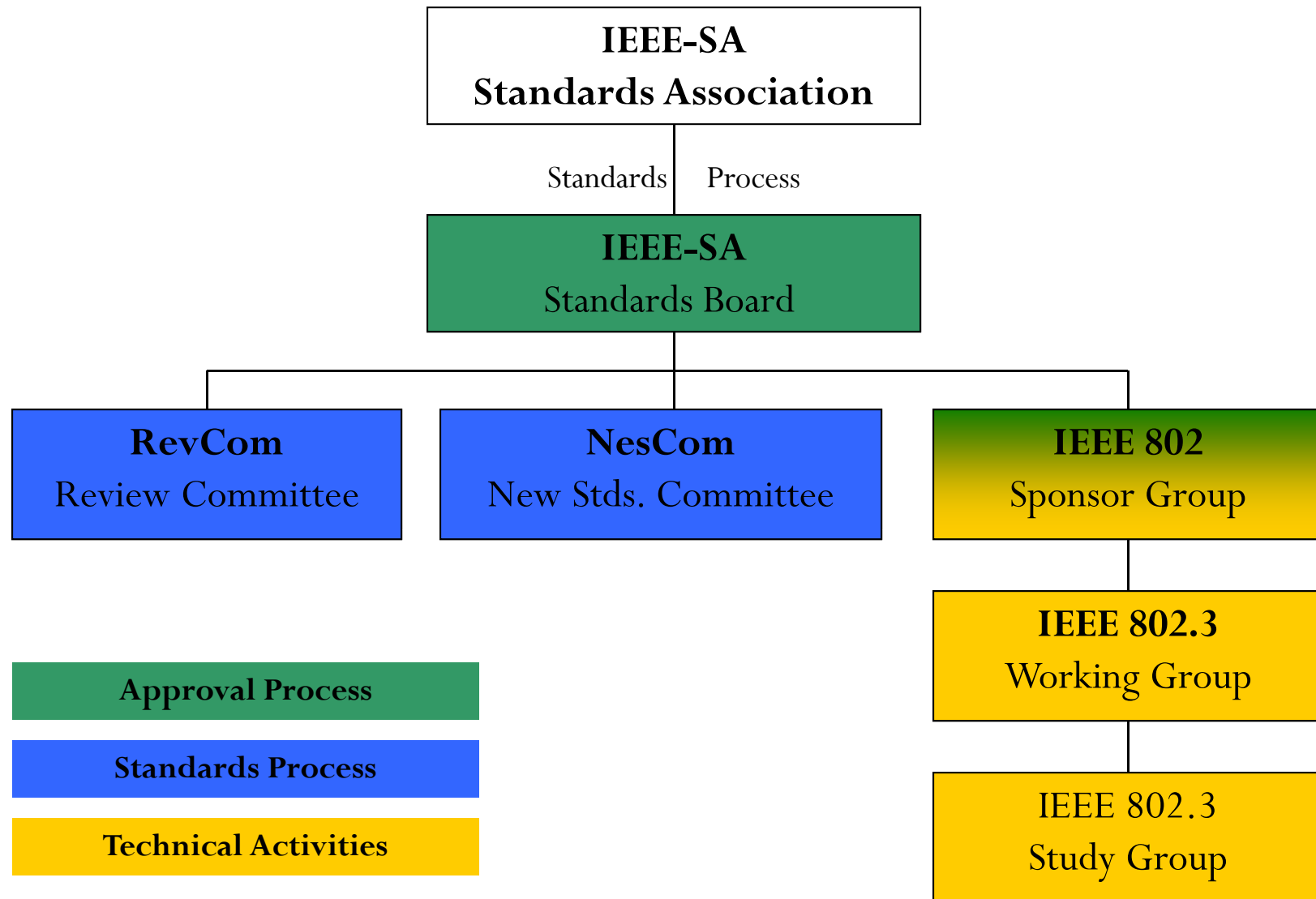
Study Group Private Area

- URL: <http://www.ieee802.org/3/100GCU/private/index.html>
 - Username: xxxxxxxx
 - Password: xxxxxxxx
- Write it down...
- Note - The draft is posted for your review only, and neither the draft nor access information should be copied or redistributed to others in violation of document copyrights.

Ground Rules

- Based upon IEEE 802.3 Rules
 - 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

- **IEEE-SA Operations Manual:**
 - <http://standards.ieee.org/sa/sa-om.pdf>
- **IEEE-SA Standards Board Bylaws:**
 - <http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>
- **IEEE-SA Standards Board Operations Manual:**
 - <http://standards.ieee.org/guides/opman/sb-om.pdf>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures:**
 - http://standards.ieee.org/board/aud/LMSC_2009.pdf
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual:**
 - http://www.ieee802.org/PNP/2009-11/LMSC_OM_approved_091120_rev_100213.pdf
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures:**
 - http://www.ieee802.org/PNP/2009-11/LMSC_WG_PandP_approved_091120_rev_100213.pdf
- **IEEE 802.3 Working Group Operating Rules:**
 - http://ieee802.org/3/rules/P802_3_rules.pdf

Guidelines for IEEE-SA Meetings

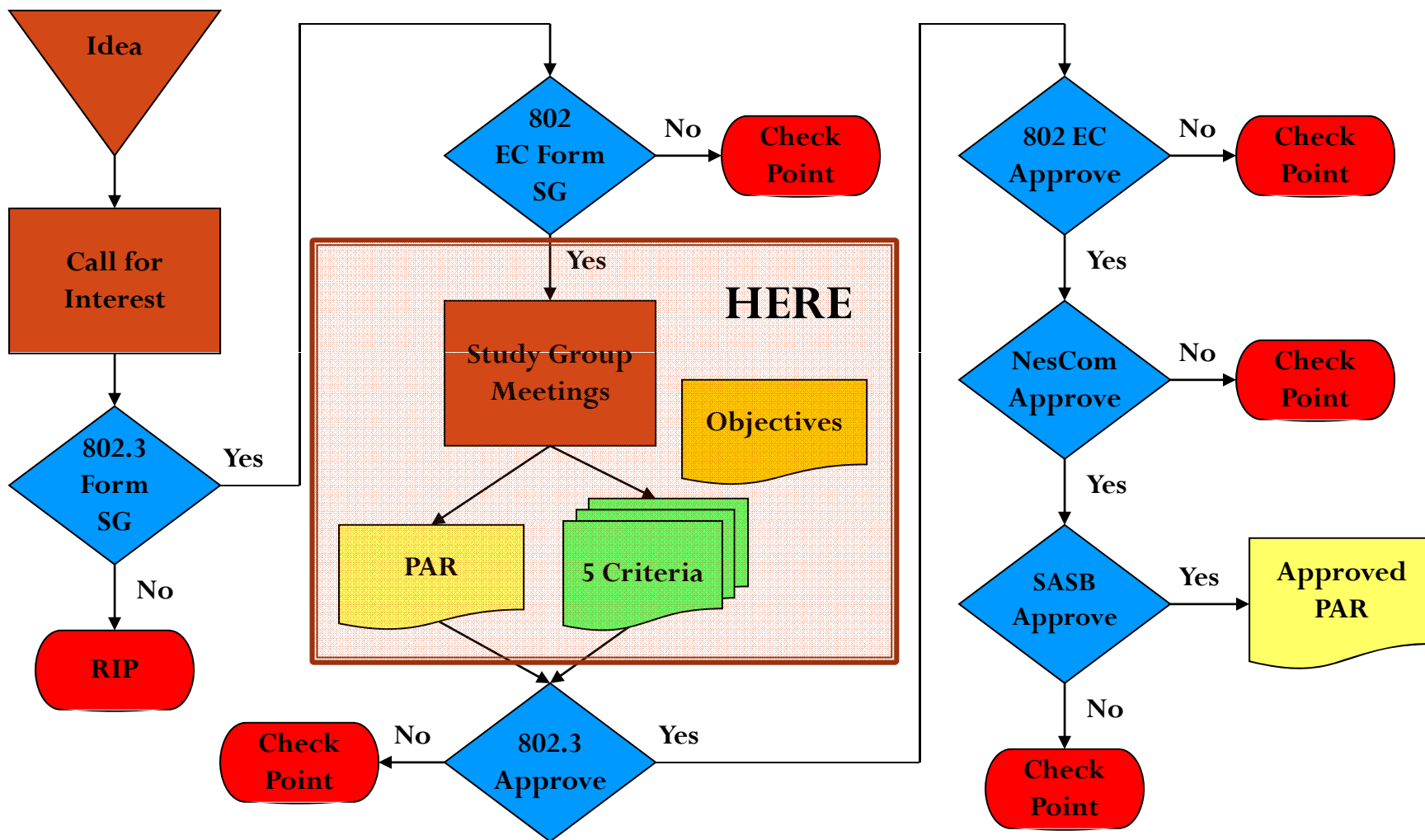
- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
- Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
- Don't discuss specific license rates, terms, or conditions.
 - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
 - Technical considerations remain primary focus
- Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
- Don't discuss the status or substance of ongoing 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/about/sasb/patcom/index.html>

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

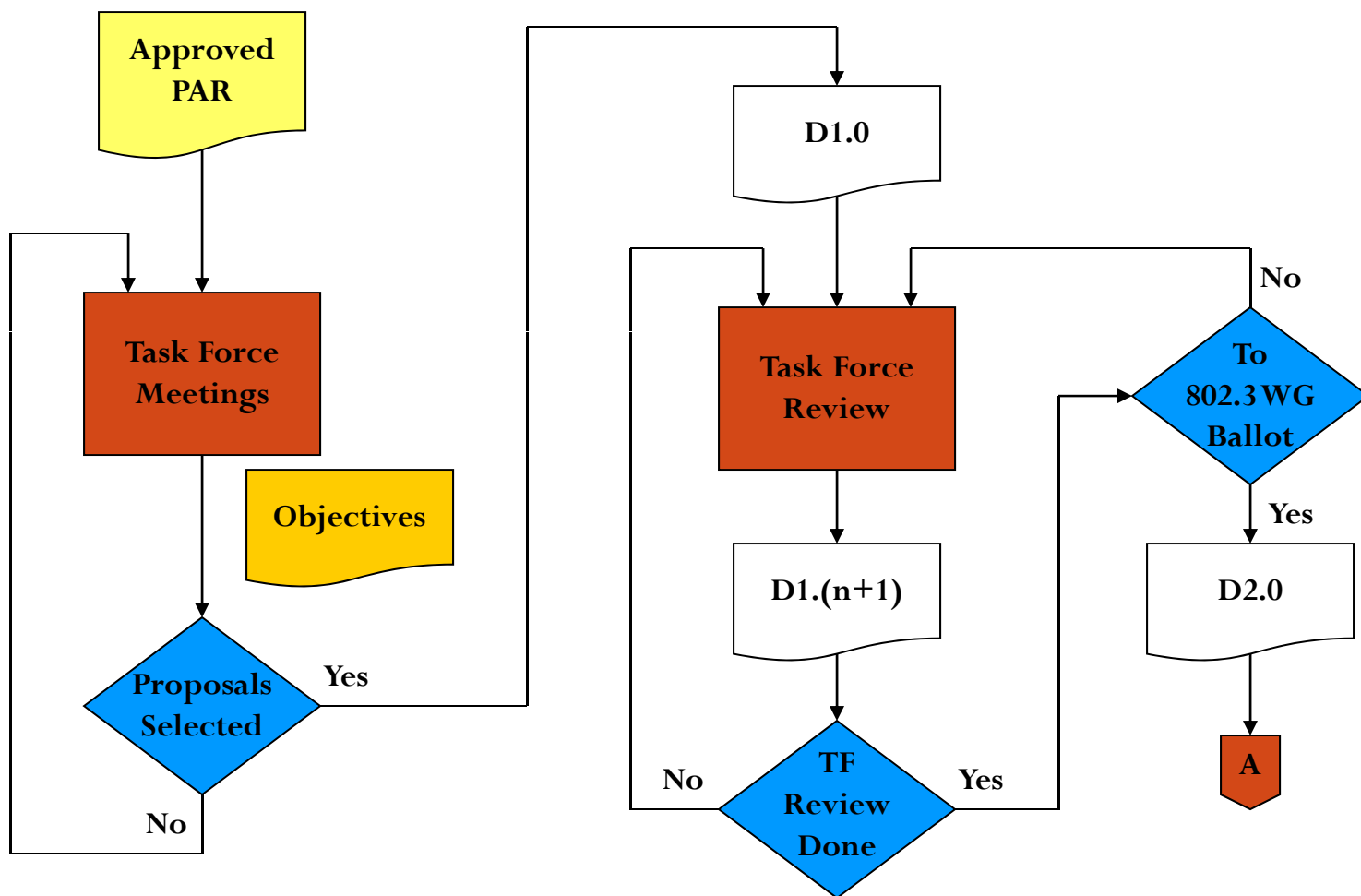
This slide set is available
at <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt>

Overview of IEEE 802.3 Standards Process (1/5)- Study Group Phase

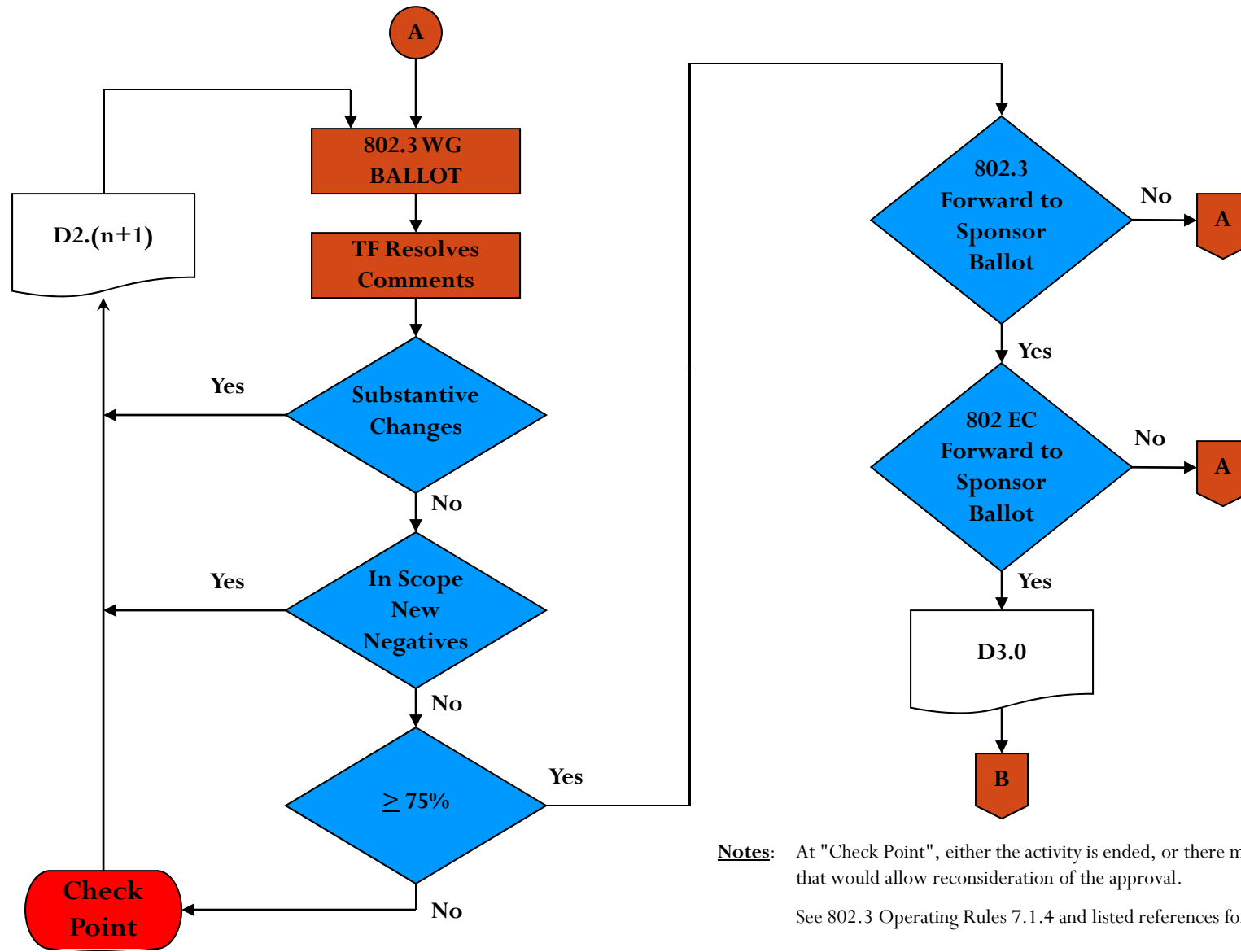


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase



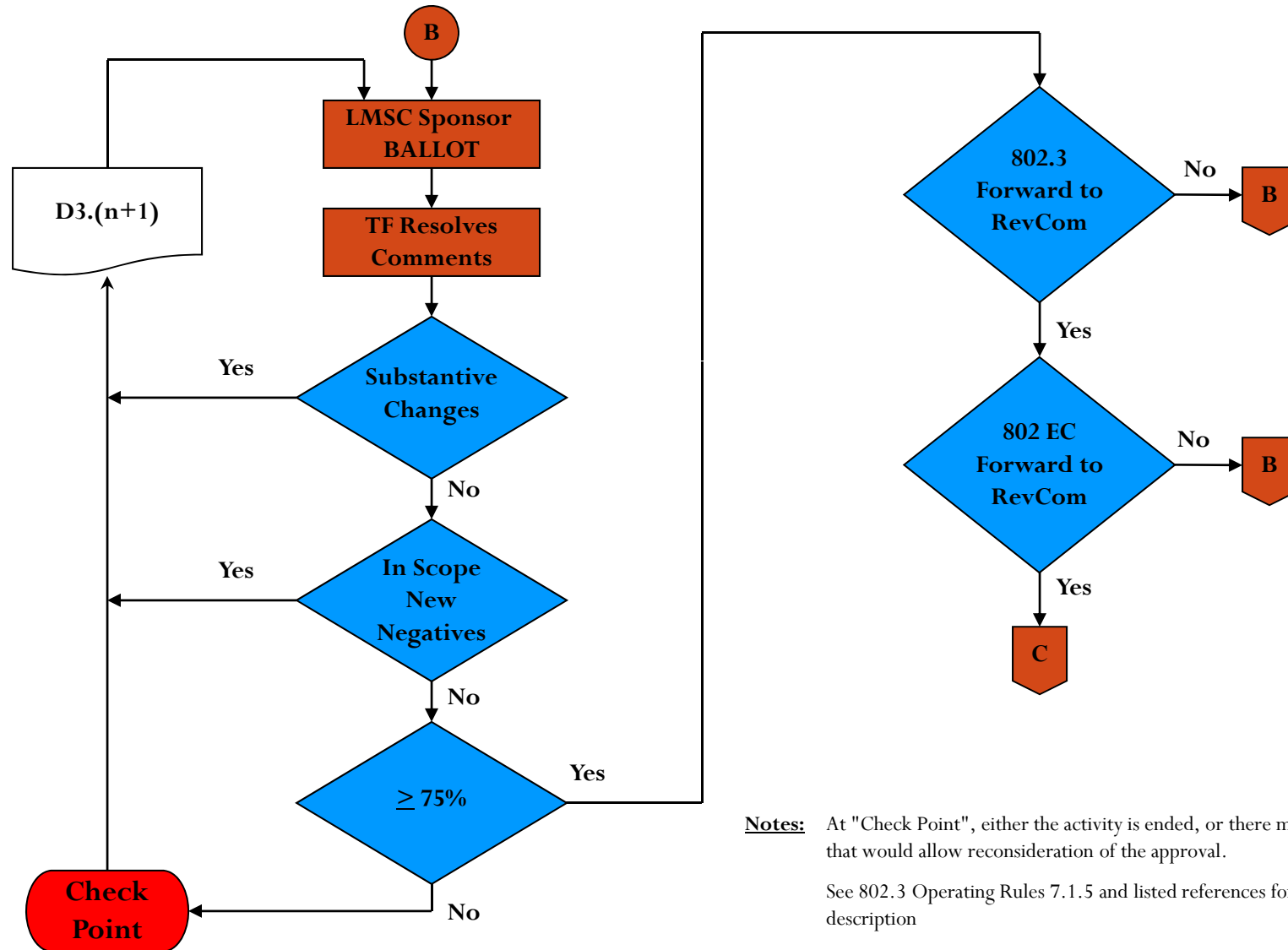
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See 802.3 Operating Rules 7.1.4 and listed references for complete description

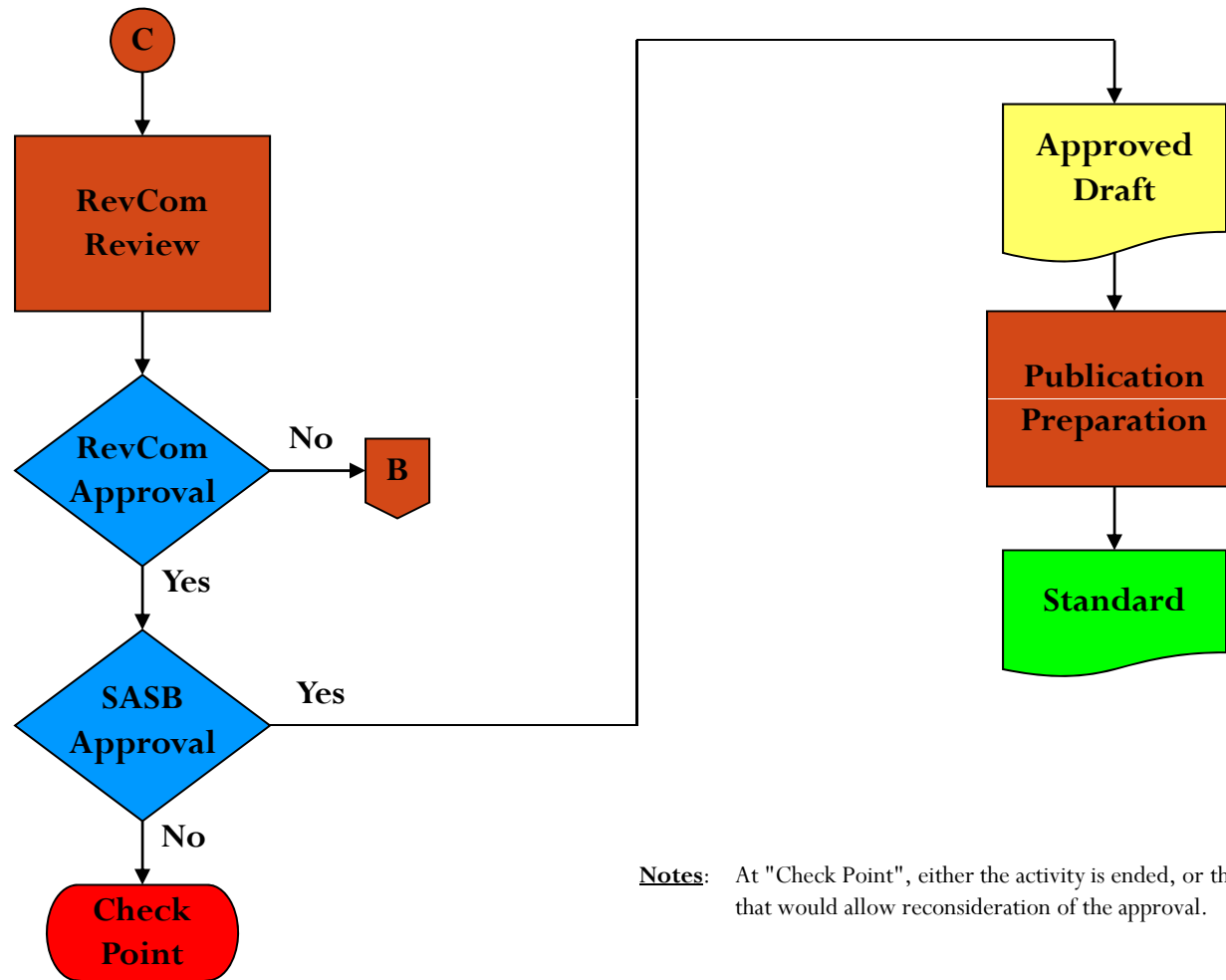
Overview of IEEE 802.3 Standards Process (4/5)- Sponsor Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See 802.3 Operating Rules 7.1.5 and listed references for complete description

Overview of IEEE 802.3 Standards Process (5/5) – Final Approvals / Standard Release



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

The Study Group

- Normal function is to draft a complete PAR and Five Criteria
- Provide a plenary week tutorial to the LMSC.
- Gain approval at the WG 802.3, 802 SEC, IEEE NesCom and IEEE-SA Standards Board.
- SG only exists for 6 months
 - Extensions can be requested, voted on by 802.3, ratified by SEC
- Development of Objectives helps set the goals for the Task Force
- Consensus (>75%) required to move forward
- Not a goal – choosing a solution.

Request for Formation of Study Group (as per Nov '10 Plenary Motion)

**Move the IEEE 802.3 Working Group
authorizes the formation of a study group for
“100GbE Electrical Backplane and Twinaxial
Copper Cable Assemblies.”**

Project Documentation

- Objectives
- PAR
 - Title – What are we calling this?
 - Scope – The Focus
 - Purpose – Why do we want to do this?
- 5 Criteria
 - Broad Market Potential
 - Compatibility with IEEE Std. 802.3
 - Distinct Identity
 - Technical Feasibility
 - Economic Feasibility

Liaisons and Communications

- OIF (1/27/11)
 - Forwarded documents
 - OIF draft agreement for the CEI-25G-LR (OIF2008.161.11)
 - Test Methodologies for CEI-28G-SR and CEI-25G-LR (OIF2010.189.05).

Presentations (1 of 2)

Note –Times listed are subject to change.

<u>Tues</u>	<u>15-Mar-11</u>			
Time	Presenter	Affiliation	Title	File Name
9:00 AM	John D'Ambrosia	Force10 Networks	Agenda and General Information	agenda_01_0311.pdf
9:30 AM	Dave Chalupsky	Intel	Jan 11 Action Items and Attendance	chalupsky_01_0311.pdf
9:40 AM	Mike Bennett	LBNL	Introduction to EEE	bennett_01_0311.pdf
10:00 AM	Break			
10:15 AM	Brad Booth	Applied Micro	Bit Error Ratio Objective	booth_01_0311.pdf
10:45 AM	William Bliss	Broadcom	Signaling Terminology: PAM-M and Partial Response Precoders	bliss_01_0311.pdf
11:15 AM	Greg Lecheminant	Agilent	Recommendations for common VNA Configurations for channel characterization	lecheminant_01_0311.pdf
11:30 AM	Pavel Zivny	Tektronix	Recommendations for TDR Configurations for channel characterization	zivny_01_0311.pdf
11:45 AM	Adam Healey	LSI	Suggested Practices for Reporting Simulation Results (reprise)	healey_01_0311.pdf
12:00 PM	Lunch			
1:00 PM	Mark Gustlin	Cisco	System Vendors View on 100 Gb/s Backplane and Copper Study Group Issues	gustlin_01_0311.pdf
1:20 PM	Mark Gustlin	Cisco	FEC Triple Tradeoffs & 100GCU SG Objectives	gustlin_02_0311.pdf
1:40 PM	Frank Chang	Vitesse	Consider SG Objective from IC Vendor Perspective	chang_01_0311.pdf
2:00 PM	Dave Chalupsky	Intel	Broad Market Potential and Economic Feasibility of the 100Gb Backplane and Cu Cable Solutions for the Volume Blade & Rack Server Markets	chalupsky_02_0311.pdf
2:30 PM	Howard Frazier	Broadcom	Objectives Discussion	dambrosia_01_0311.pdf
2:45 PM	Vasu Parthasarathy	Broadcom	Backplane Improvement over Time	parthasarathy_01_0311.pdf
3:05 PM	Break			
3:25 PM	Ziad Hatab	Vitesse	Channel Analysis for Defining Reach and BER Objectives	hatab_01_0311.pdf
3:55 PM	John Ewen	IBM	25Gb/s Signaling for 100G Backplanes: Channel Loss vs Equalization	ewen_01_0311.pdf
4:25 PM	Mounir Meghelli	IBM	25Gb/s Signaling for 100G Backplanes: Time Domain SI Analysis	meghelli_01_0311.pdf
4:55 PM	Peerouz Amieshi	Molex	100G Backplane Link Feasibility Study: Time Domain Simulations Using Frequency Domain Measurement Data	amleshi_01_0311.pdf
5:25 PM	Mike Li	Altera	A Study of 10G-KR Channel Evolution and Its Signaling Implications at 25 Gbps	li_01_0311.pdf
5:45 PM	Nathan Tracy	Tyco Electronics	Alternative Backplane Architectures for 100Gb/s Applications	tracy_01_0311.pdf
6:05 PM	Megha Shanbhag	Tyco Electronics	100Gb/s Measured Backplane Channels	shanbhag_01_0311.pdf
6:25 PM	Break for the Day			

Presentations (2 of 2)

Note –Times listed are subject to change.

Time	Presenter	Affiliation	Title	File Name
8:30 AM	John D'Ambrosia	Force10 Networks	Opening Comments	
8:35 AM	Joel Goergen	Cisco	IEEE802.3ap Materials Review: Past Review and Future Recommendations	goergen_01_0311.pdf
9:05 AM	Joel Goergen	Cisco	Circuit Board Technology: An Introduction to Fabrication Issues in High Speed Channels	goergen_02_0311.pdf
9:35 AM	Charles Moore	Avago	A Method for Evaluating Channels	moore_01_0311.pdf
10:05 AM	Break			
10:25 AM	Charles Moore	Avago	Evaluation of Channels Submitted to Study Group	moore_02_0311.pdf moore_03_0
10:45 AM	Alan Flatman	LAN Technologies	Server Link Lengths forServer Link Lengths forToRToR/Cabinet/Cabinet--to-to--Cabinet &Cabinet &EoR/Centralised SwitchingEoR/Centralised Switching	flatman_01_0311.pdf
11:15 AM	Nathan Tracy	Tyco Electronics	Viability of 3 Meter Cable Reach Based on 10Gb/s Market Snapshot	tracy_02_0311.pdf
11:30 AM	Chris DiMinico	MC Communications / Leoni Cables	Considerations for determining Objectives	diminico_01_0311.pdf
12:00 PM	Lunch			
1:15 PM	Mark Bugg	Molex	Twin-Ax Capability for 4x25Gbps	bugg_01_0311.pdf
1:45 PM	Scott Sommers	Molex	Considerations for Determining Objectives	sommers_01_0311.pdf
2:05 PM	Steve Carlson	HP Desgin	Introduction to Time Synconrization	carlson_01_0311.pdf
2:25 PM			Discussion / Straw Polls / Motions	
3:00 PM	Break			
3:20 PM			Discussion / Straw Polls / Motions / Action Items	
			Closing Business	
6:00 PM	Adjourn			

Thurs 17-Mar-11

Time	Presenter	Affiliation	Title	File Name
8:00 AM	John D'Ambrosia	Force10 Networks	Opening Comments (if necessary)	
8:05 AM			Motions / Closing Business (if necessary)	
9:30 AM	Adjourn			

Future Meetings (<http://www.ieee802.org/3/interims/index.html>)

- May 2011 Interim
 - Date: week of May 23, 2011
 - Location TBD
- July 2011 Plenary
 - San Francisco, CA, USA
 - Week of July 17
 - Hyatt Regency San Francisco at Embarcadero Center
- Sept 2011 Interim
 - Date: week of Sept 12, 2011
 - Location TBD
- Nov 2011 Plenary
 - Atlanta, GA, USA
 - Week of Nov 6
 - Hyatt Regency Atlanta
- Anyone interested in hosting a meeting contact me.

Thank You!