
AGENDA AND GENERAL INFORMATION

IEEE P802.3CK - 100 GB/S, 200 GB/S, AND 400 GB/S

ELECTRICAL INTERFACES TASK FORCE

BETH KOCHUPARAMBIL, EMPLOYED BY AND AFFILIATED WITH CISCO SYSTEMS
KENT LUSTED, EMPLOYED BY AND AFFILIATED WITH INTEL CORPORATION

LONG BEACH, CA, USA – JANUARY 15-17TH, 2019

AGENDA

- Welcome and Introductions
- Approve Agenda
- Approve November Plenary Minutes
- Ground Rules
- IEEE Structure, Bylaws and Rules / Call for Patents / IEEE Standards Process
- Reflector and Web
- Goals for this meeting
- Liaisons and Communications
- Presentations
- Motions and Closing Business
- Future Meetings

TASK FORCE DECORUM



- An officer is permitted to make an audio or slideshow recording of this meeting exclusively for the purpose of generating minutes which shall not be copied or distributed. **IEEE 802.3 meetings do not use this option.** Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited. (June 2018 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (June 2018 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- Cell phone ringers off
- Wear your badges at all times in meeting areas
 - Help the hotel security staff improve the general security of the meeting rooms
 - **PCs HAVE BEEN STOLEN** at previous meetings
 - **DO NOT** assume that meeting areas are secure
- Please observe proper decorum in meetings

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

IEEE-SA
Standards Association

Standards | Process

IEEE-SA
Standards Board

RevCom
Review Committee

NesCom
New Stds. Committee

IEEE 802
Sponsor Group

IEEE 802.3
Working Group

IEEE 802.3
Task Force

Approval Process

Standards Process

Technical Activities

IMPORTANT BYLAWS AND RULES

- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
<https://ieee.app.box.com/v/PandP-LMSC>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802.3 Working Group Operating Rules**
http://ieee802.org/3/rules/P802_3_rules.pdf

Instructions for the WG Chair

The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- **Show slides #1 through #4 of this presentation**
- **Advise the WG attendees that:**
 - IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG Chair review the guidance in *IEEE-SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.

PARTICIPANTS HAVE A DUTY TO INFORM THE IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

WAYS TO INFORM IEEE

- **Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

OTHER GUIDELINES FOR IEEE WG 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 of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - **Technical considerations remain the 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.**

For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and
Antitrust and Competition Policy: What You Need to Know at <http://standards.ieee.org/develop/policies/antitrust.pdf>

PATENT-RELATED INFORMATION

The patent policy and the procedures used to execute that policy are documented in the:

- ***IEEE-SA Standards Board Bylaws***
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- ***IEEE-SA Standards Board Operations Manual***
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

**If you have questions, contact the IEEE-SA Standards Board
Patent Committee Administrator at patcom@ieee.org**

Participation in IEEE 802 Meetings

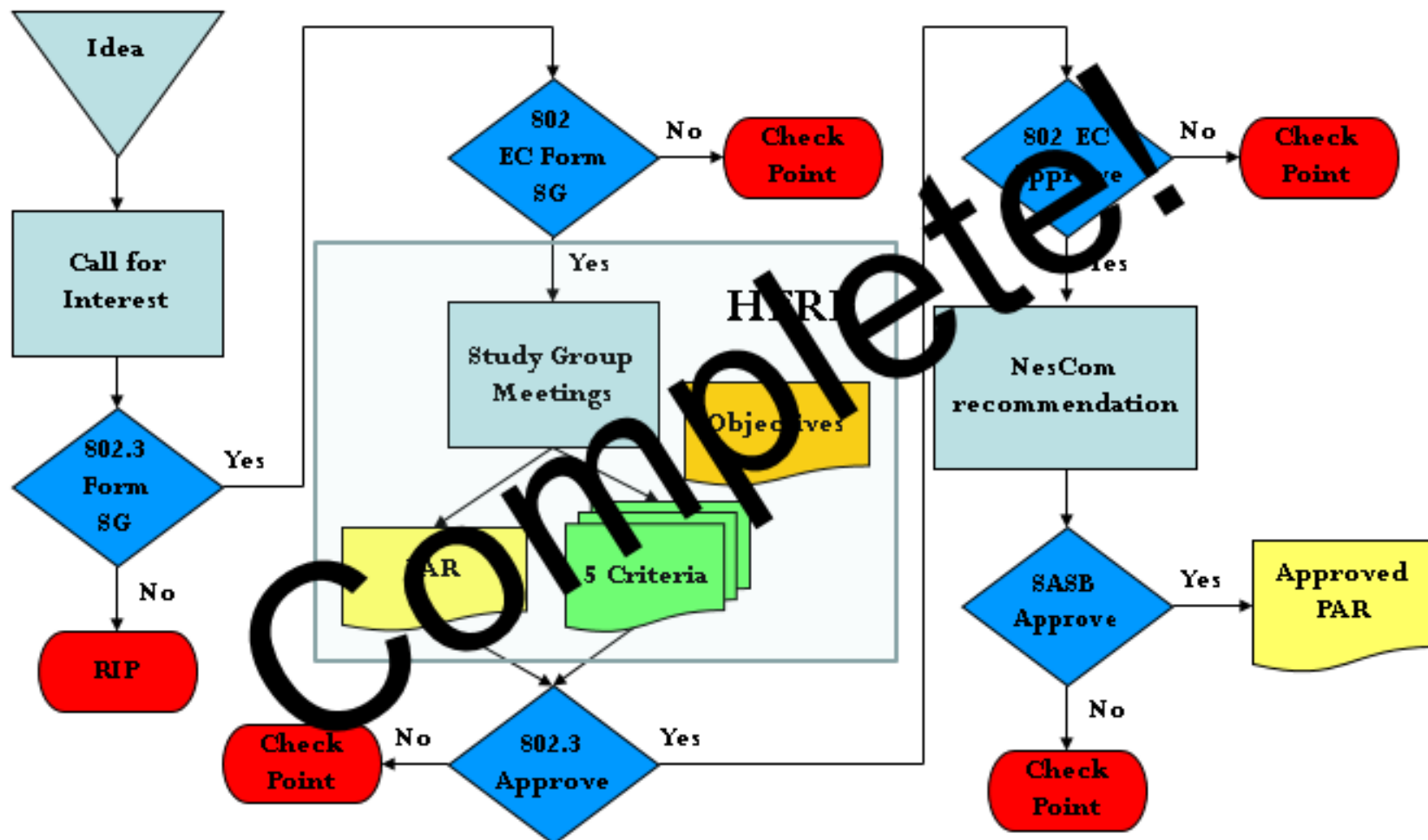
Participation in any IEEE 802 meeting (Sponsor, Sponsor subgroup, Working Group, Working Group subgroup, etc.) is on an individual basis

- Participants in the IEEE standards development individual process shall act based on their qualifications and experience. (https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1)
- IEEE 802 Working Group membership is by individual; “Working Group members shall participate in the consensus process in a manner consistent with their professional expert opinion as individuals, and not as organizational representatives”. (subclause 4.2.1 “Establishment”, of the IEEE 802 LMSC Working Group Policies and Procedures)
- Participants have an obligation to act and vote as an individual and not under the direction of any other individual or group. A Participant’s obligation to act and vote as an individual applies in all cases, regardless of any external commitments, agreements, contracts, or orders.
- Participants shall not direct the actions or votes of any other member of an IEEE 802 Working Group or retaliate against any other member for their actions or votes within IEEE 802 Working Group meetings, see https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1.3 and the IEEE 802 LMSC Working Group Policies and Procedures, subclause 3.4.1 “Chair”, list item x.

By participating in IEEE 802 meetings, you accept these requirements. If you do not agree to these policies then you shall not participate.

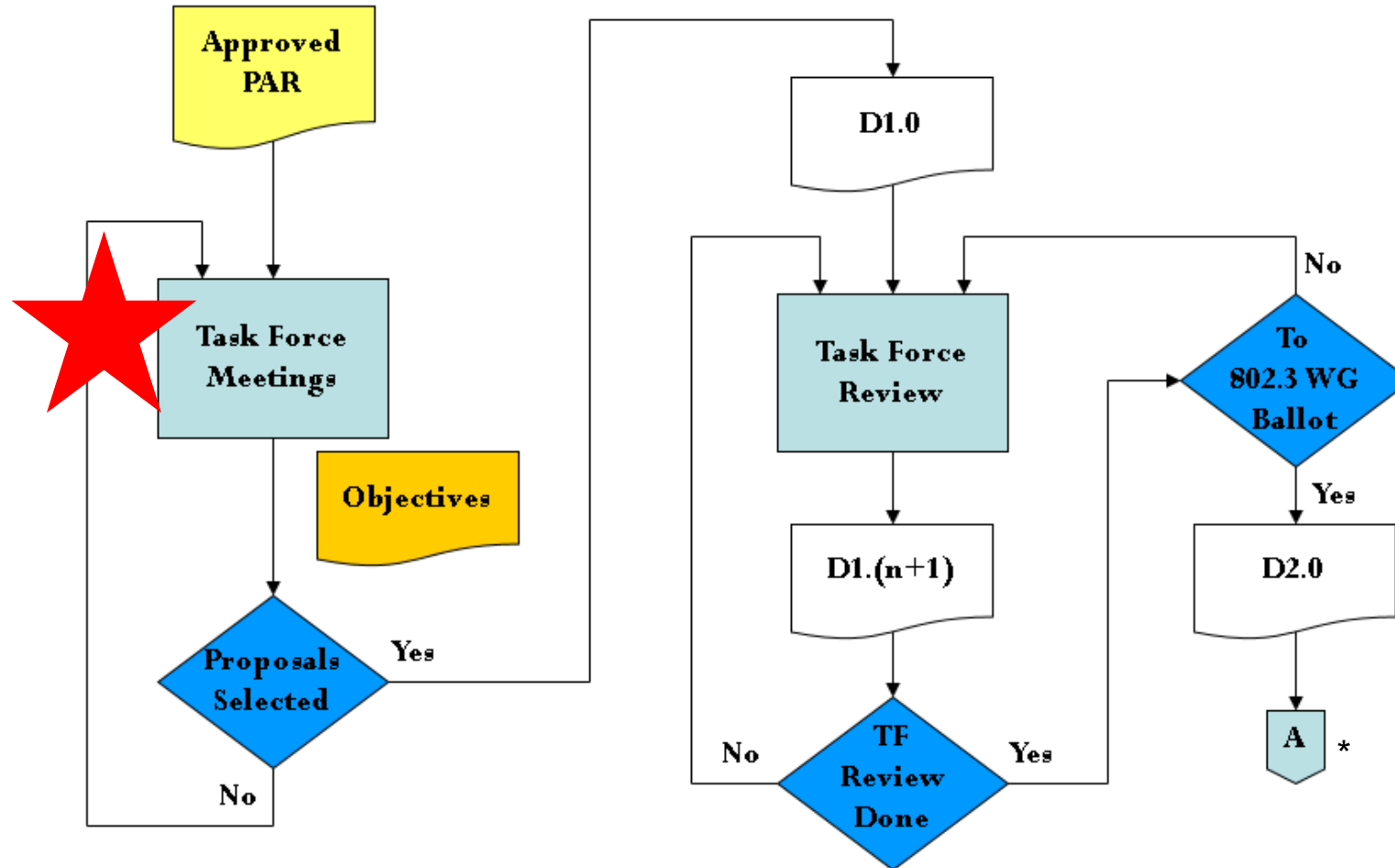
(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: <http://www.ieee802.org/devdocs.shtml>)

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

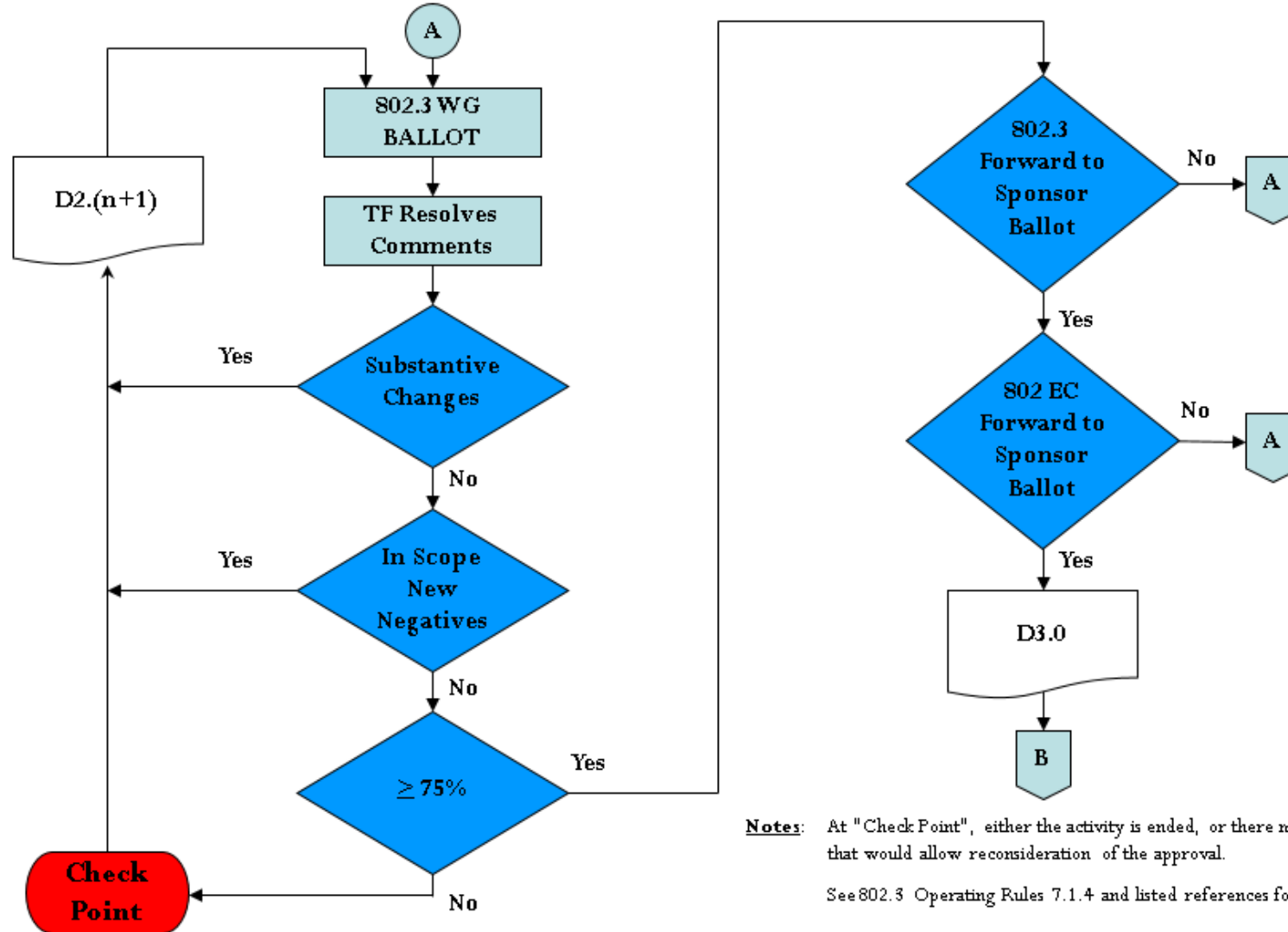


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



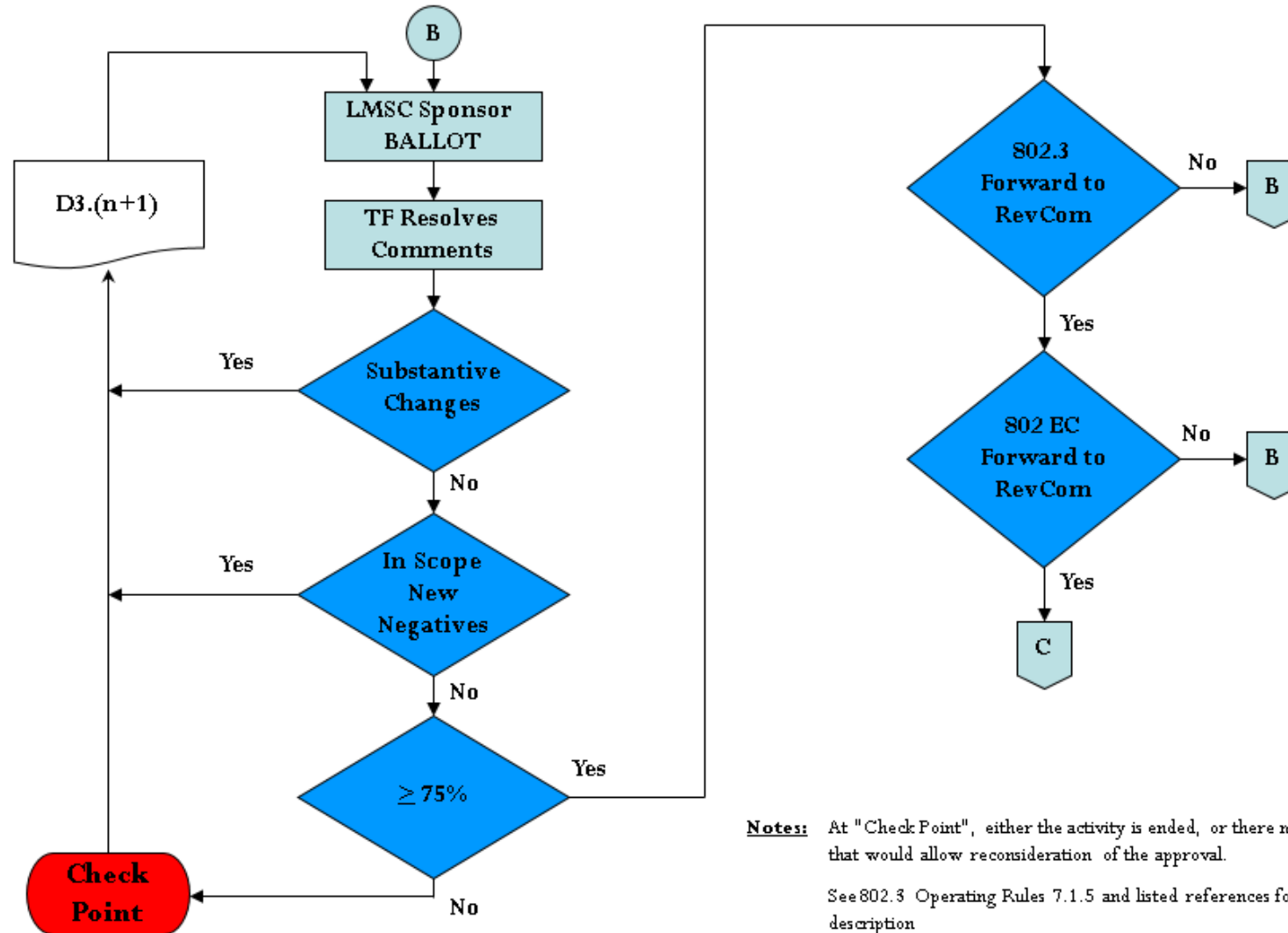
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



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

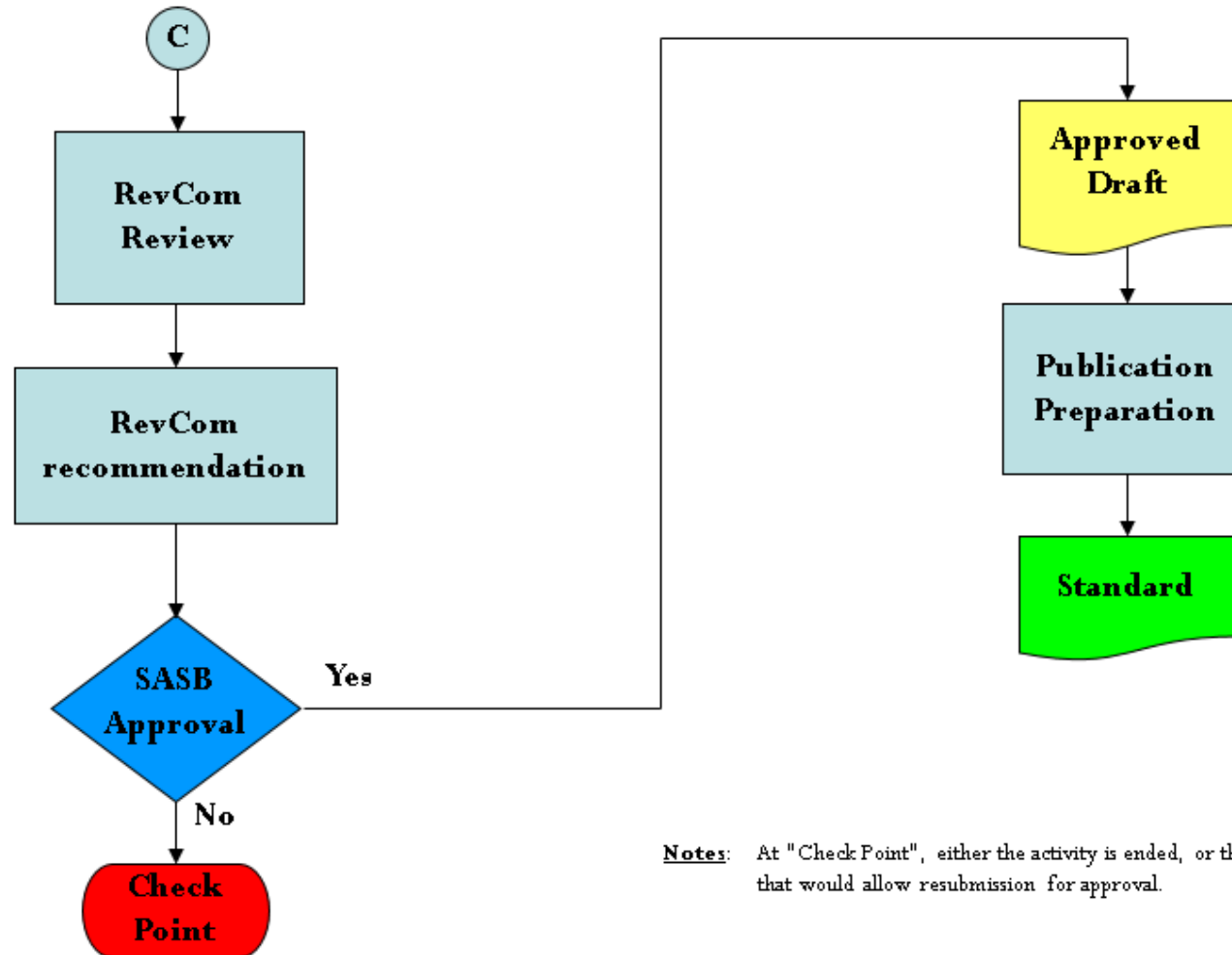
Overview of IEEE 802.3 Standards Process (4/5)- Sponsor Ballot Phase



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 resubmission for approval.

IEEE P802.3CK – 100 GB/S, 200 GB/S, 400 GB/S ELECTRICAL INTERFACES TASK FORCE - APPROVED PROJECT DOCUMENTS

- PAR: http://www.ieee802.org/3/ck/P802_3ck_PAR_140518.pdf
- CSD: http://www.ieee802.org/3/ck/P802_3ck_CSD_06apr18.pdf
- Objectives: http://www.ieee802.org/3/ck/P802_3ck_Objectives_2018mar.pdf

REFLECTOR AND WEB

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

ListServ@ieee.org

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

subscribe STDS-802-3-100GEL <yourfirstname> <yourlastname>

end

- Send 100GEL reflector messages to:

STDS-802-3-100GEL@LISTSERV.IEEE.ORG

- Task Force  web page URL:

http://www.ieee802.org/3/ck/index.html

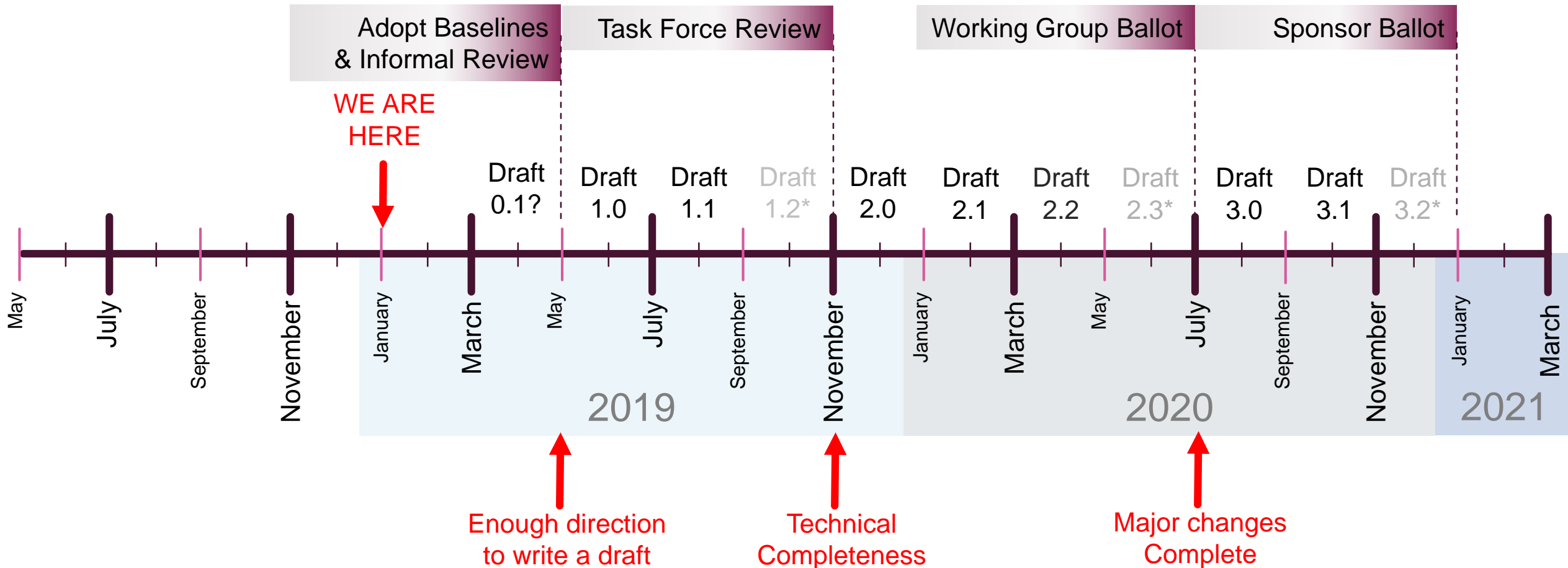
ATTENDANCE

- Tutorial Material on attendance tool
 - http://iee802.org/3/minutes/attendance_procedures.pdf
- Access details
 - URL: <http://imat.ieee.org/>
 - You may need to sign off your VPN to record attendance
- Access Code for this meeting: <given in the meeting>

GOALS FOR THE MEETING

- Select nomenclature to use
- Narrow package discussion
- Narrow C2M discussion
- Movement on backplane studies
- Measure consensus on FEC

TIMELINE



— Plenary meeting

— Interim meeting

* These drafts should have no/minor comments in order to move to next phase of the project.

LIAISONS AND COMMUNICATIONS

- OIF to IEEE 802.3 regarding progress on OIF CEI-112G-VSR project
 - http://www.ieee802.org/3/minutes/jan19/incoming/OIF_to_IEEE_802d3_CEI_112G_Jan_2019.pdf
 - and the attachment:
http://www.ieee802.org/3/private/liaison_docs/OIF/OIF_to_IEEE_802d3_CEI_112G_Jan_2019_att1.pdf

TUESDAY

As announced, the main discussion on Shawn Nicholl's extended sub-layer proposal is happening around 9am in .3cn.
Those particularly interested in this topic are encouraged to attend the .3cn Tuesday morning

Time	Presenter	Affiliation	Title	File Name	Duration
1:00 PM	Beth Kochuparambil	Cisco	Agenda	agenda_3ck_01_0119	0:35
1:35 PM	Beth/Mike L/Mike D		OIF Liason Review		0:20
1:55 PM	Liav BenArtsi	Marvell	Package Discussions Update & Suggested PKG Model Base-Line for 802.3ck	benartsi_3ck_01_0119	0:20
2:15 PM	Rob Stone	Broadcom	Switch Package Physical Design Considerations	stone_3ck_01_0119	0:25
2:40 PM	Howard Heck	Intel	Assessment of Proposed Reference Package Model	heck_3ck_01_0119	0:25
3:05 PM	BREAK				0:20
3:25 PM	Mau-Lin Wu	MediaTek	COM Sensitivity Analysis of PKG Model	wu_3ck_01_0119	0:30
	Discussion				
<i>tentative</i>	Kent Lusted	Intel	Nomenclature	lusted_3ck_01_0119	0:25
	Rich Mellitz	Samtec	COM Updates to Support C2M Investigations	mellitz_3ck_01_0119	0:20
6:00 PM	BREAK FOR THE DAY (NEA is in our room at 7pm)				

WEDNESDAY

Time	Presenter	Affiliation	Title	File Name	Duration
8:00 AM	Beth Kochuparambil	Cisco	Plan for the day		0:05
8:05 AM	Kent Lusted	Intel	C2M Update - January 2019	lusted_3ck_02_0119	0:15
8:20 AM	Phil Sun	Credo	100G C2M Study Results	sun_3ck_01a_0119	0:45
9:05 AM	Pete Anslow	Ciena	RS(544,514) FEC performance for C2M 400G and 100G without interleaving	anslow_3ck_01_0119	0:30
9:35 AM	Toshiyasu Ito	Yamaichi	100GEL C2M Channel Model Study Update	ito_3ck_01_0119	0:20
9:55 AM	BREAK				0:15
10:10 AM	Ali Ghiasi	Ghiasi Quantum	C2M Simulations and Methodology	ghiasi_3ck_01_0119	0:30
10:40 AM	Steve Sekel	Keysight	Suggested change in Module Input and Host Input tests stressed eye c	sekel_3ck_01_0119	0:30
	Discussion				
12:00 PM	BREAK				1:15
1:15 PM	Howard Heck	Intel	Host Backplane Channel Update	heck_3ck_02_0119	0:15
1:30 PM	Nathan Tracy	TE	Channel Simulations for 112G Backplane Analysis	tracy_3ck_01_0119	0:20
1:50 PM	Beth Kochuparambil	Cisco	Summary of System Discussion of Backplane Channels	kochuparambil_3ck_01	0:20
2:10 PM	Phil Sun	Credo	KR/CR Simulation Results with COM Tool 2.57	sun_3ck_02_0119	0:40
2:50 PM	Yan Zhuang	Huawei	Summary of IEEE 802.3ck Baseline Reference Receivers and Clarification of F	zhuang_3ck_01_0119	0:40
3:30 PM	Mike Peng Li	Intel	112Gbps LR COM Investigation (III)	li_3ck_01_0119	0:40
4:10 PM	Phil Sun	Credo	What is Important for a Reference Receiver	sun_3ck_03_0119	0:40
	Discussion				
<i>tentative</i>	Ali Ghiasi	Ghiasi Quantum	How to Proceed on C2C-S and C2C-L	ghiasi_3ck_02_0119	0:15
6:00 PM	BREAK FOR THE DAY - (802.3cg) PLCA Tutorial in our room at 7pm				1:15

THURSDAY

Time	Presenter	Affiliation	Title	File Name	Duration
8:30 AM	Beth Kochuparambil	Cisco	Plan for the day		0:05
8:35 AM	Mark Gustlin	Cisco	PCS, FEC and PMA Sublayer Baseline Proposal	gustlin_3ck_01_0119	0:25
9:00 AM	Xiang He	Huawei	Further study on RS(544,514) FEC - symbol interleaving and bit muxing	he_3ck_01_0119	0:30
9:30 AM	BREAK				0:15
9:45 AM	Ilya Lyubomirsky	Inphi	<i>(late)</i> Latency Concerns on Interleaved FEC for KR/CR	lyubomirsky_3ck_01_0119	0:30
10:15 AM	Shawn Nicholl	Xilinx	Baseline for CGMII Extender, CGMII Extender Sublayer (100GXS)	nicholl_3ck_01_0119	0:25
	Remaining Presentations, Discussion, & Straw Polls				
12:00 PM	BREAK				1:15
	Discussion & Straw Polls				
3:00 PM	BREAK				0:20
	Discussion & Straw Polls				
6:00 PM	BREAK FOR THE DAY - 802.3 Working Group meeting starts in our room at 6:30pm				

FUTURE MEETINGS

- March Plenary – Vancouver, BC, Canada
 - Week of March 11th
- May Interim – Salt Lake City, Utah, USA
 - Week of May 20th
- July Plenary – Vienna, Austria
 - Week of July 15
- See <http://www.ieee802.org/3/interims/index.html> for more information
- Anyone interested in hosting a interim meeting contact me or the IEEE 802.3 Executive Secretary [Steve Carlson](#).

FUTURE MEETINGS

- 7 weeks before January meeting, but Chinese New Year at the beginning of February.
- Looking at **four 2hour Ad Hocs** between now and March.
 - Wednesdays at 7am PST; **Jan. 30, Feb. 13, 20, and 27** (to be announced)
 - Will cancel or shorten on the Tuesday prior as needed.

January						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

March						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



THANK YOU!

