

# AGENDA & MINUTES (Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING (updated 2005-01-31)

Friday November 19, 2004 1:00 PM – 6:00 PM

San Antonio, TX

**1.00 MEETING CALLED TO ORDER - Nikolich 1 01:06 PM**

Paul Nikolich called the meeting to order at 1:00 PM Members in attendance were:

- Paul Nikolich - Chair, IEEE 802 LAN / MAN Standards Committee
- Mat Sherman - Vice Chair, IEEE 802 LAN / MAN Standards Committee
- Pat Thaler - Vice Chair, IEEE 802 LAN / MAN Standards Committee
- Bob O'Hara - Recording Secretary, IEEE 802 LAN / MAN Standards Committee
- Buzz Rigsbee - Executive Secretary, IEEE 802 LAN / MAN Standards Committee
- John Hawkins - Treasurer, IEEE 802 LAN/MAN Standards Committee
- Tony Jeffree - Chair, IEEE 802.1 - HILI Working Group
- Bob Grow - Chair, IEEE 802.3 - CSMA/CD Working Group
- Stuart Kerry - Chair, IEEE 802.11 - Wireless LANs Working Group
- Bob Heile - Chair, IEEE 802.15 – Wireless PAN Working Group
- Roger Marks - Chair, IEEE 802.16 – Broadband Wireless Access Working Group
- Mike Takefman - Chair, IEEE 802.17 – Resilient Packet Ring Working Group
- Carl Stevenson - Chair, IEEE 802.18 – Regulatory TAG
- Steve Shellhammer - Chair, IEEE 802.19 – Wireless Coexistence TAG
- Jerry Upton - Chair, IEEE 802.20 – Mobile Broadband Wireless Access
- Ajay Rajkumar - Chair, IEEE 802.21 – Media Independent Handover
- Carl Stevenson - Chair, IEEE 802.22 – Wireless Regional Area Networks

**2.00 MI APPROVE OR MODIFY AGENDA - Nikolich 9 01:09 PM**

**1.00 MEETING CALLED TO ORDER - Nikolich 1 01:00 PM**

**2.00 MI APPROVE OR MODIFY AGENDA - Nikolich 9 01:01 PM**

**3.00 - 01:10 PM**

**3.01 - 01:10 PM**

**3.02 - 01:10 PM**

**4.00 II TREASURER'S REPORT - Hawkins 10 01:10 PM**

**4.01 II Announcements from the Chair - Nikolich 5 01:20 PM**

**Category (\* = consent agenda) -**

**5.00 IEEE Standards Board Items - 01:25 PM**

**5.01 ME 802.3REVam to sponsor ballot - Grow 10 01:25 PM**

**5.02 ME 802.3ar Congestion Management PAR to NESCOM - Grow 10 01:35 PM**

**5.03 ME 802.3as Frame Extension PAR to NESCOM - Grow 5 01:45 PM**

**5.04 ME 802.15.1REVa to REVCOM - Heile 10 01:50 PM**

**5.05 ME 802.1ah PAR to NESCOM - Jeffree 5 02:00 PM**

**5.06 ME 802.1aj PAR to NESCOM - Jeffree 5 02:05 PM**

**5.07 ME 802.1ak PAR to NESCOM - Jeffree 5 02:10 PM**

**5.08 ME Conditional forwarding of 802.1AB to REVCOM - Jeffree 5 02:15 PM**

**5.09 ME 802.11u PAR to NESCOM - Kerry 5 02:20 PM**

**5.10 ME 802.11v PAR to NESCOM - Kerry 5 02:25 PM**

**5.11 ME 802.16h to NESCOM - Marks 5 02:30 PM**

5.12	ME	802.17b PAR to NESCOM	-	Takefman	5	02:35 PM
5.13			-			02:40 PM
6.00		Executive Committee Study Groups & Working Groups	-			02:40 PM
6.01			-			02:40 PM
6.02			-			02:40 PM
6.03			-			02:40 PM
6.04			-			02:40 PM
6.05			-			02:40 PM
6.06			-			02:40 PM
6.07			-			02:40 PM
6.08			-			02:40 PM
7.00		Break	-		15	02:40 PM
8.00		IEEE-SA Items	-			02:55 PM
8.01	MI	Get IEEE802 Budget approval	-	Hawkins	10	02:55 PM
8.02			-			03:05 PM
8.03			-			03:05 PM
8.04			-			03:05 PM
9.00		LMSC Liaisons & External Interface	-			03:05 PM
9.01	ME	Approval of 802 filing with FCC on TV Band NPRM	-	Stevenson	5	03:05 PM
9.02	ME	802.16 contribution to ITU-R	-	Marks	5	03:10 PM
9.03			-			03:15 PM
9.04			-			03:15 PM
9.05			-			03:15 PM
9.06			-			03:15 PM
10.00		LMSC Internal Business	-			03:15 PM
10.01	MI*	Continuation of 802.3 Residential Ethernet SG	-	Grow	0	03:15 PM
10.02	MI*	Continuation of 802.3 Congestion Management SG	-	Grow	0	03:15 PM
10.03	MI*	Continuation of 802.3 Frame Expansion SG	-	Grow	0	03:15 PM
10.04	MI	Authorization of 802.3 Power Over Ethernet Plus SG	-	Grow	2	03:15 PM
10.05	MI	Authorization of 802.3 to Operate with Treasury	-	Grow	3	03:17 PM
10.06	MI	P&P Change for Coexistence	-	Shellhammer	10	03:20 PM
10.07	MI	Confirmation of Officers of 802.22	-	Stevenson	10	03:30 PM
10.08	MI	Confirmation of appointment of interim chair of 802.18	-	Nikolich	10	03:40 PM
10.09	MI*	Continuation of 802.15 mmWave SG	-	Heile	0	03:50 PM
10.10	MI*	Continuation of 802.15.1b enhanced data rate SG	-	Heile	0	03:50 PM
10.11	ME	802.11j Press Release	-	Kerry	5	03:50 PM
10.12	MI*	Continuation of 802.11 WEIN SG	-	Kerry	0	03:55 PM
10.13	MI*	Continuation of 802.11 WNG SG	-	Kerry	0	03:55 PM
10.14	MI*	Continuation of 802.11 ADS SG	-	Kerry	0	03:55 PM
10.15	MI	Member Emeritus	-	Nikolich	10	03:55 PM
10.16	MI	Equipment purchase approval	-	Rigsbee	10	04:05 PM
10.17	II	Meeting site selection	-	Rigsbee	15	04:15 PM
10.18	MI	Adopt "SA & CS Conformance" P&P change	-	Sherman	5	04:30 PM
10.19	MI	Ballot "P&P Revision Process" P&P change	-	Sherman	10	04:35 PM
10.20	MI	Ballot "EC Voting" P&P change	-	Sherman	5	04:45 PM
10.21	MI	Ballot "WG Voting" P&P change	-	Sherman	5	04:50 PM
10.22	MI	Ballot "EC Membership" P&P change	-	Sherman	5	04:55 PM
10.23	MI	Ballot "WG Membership" P&P change	-	Sherman	5	05:00 PM
10.24			-			05:05 PM
10.25			-			05:05 PM
10.26			-			05:05 PM
10.27			-			05:05 PM
10.28			-			05:05 PM
10.29			-			05:05 PM
10.30			-			05:05 PM

10.31			-			05:05 PM
10.32			-			05:05 PM
10.33			-			05:05 PM
10.34			-			05:05 PM
11.00		Information Items	-			05:05 PM
11.01	II	Viewpoint regarding plenaries	-	Kerry	1	05:05 PM
11.02	II	Interchange with other WGs	-	Kerry	1	05:06 PM
11.03	II	Responsibilities and guidelines for interim meeting hosts	-	Hawkins	10	05:07 PM
11.04	II	802.3 Change in Officers	-	Grow	1	05:17 PM
11.05	II	Update on 802.15 mmWave PAR progress	-	Heile	5	05:18 PM
11.06	II	Liaison response to MEF	-	Jeffree	5	05:23 PM
11.07	II	802 Online Training Update	-	Ickowicz	5	05:28 PM
11.08	II	802 Task Force Update	-	Ickowicz	5	05:33 PM
11.09	II	Names in Front Matter status update	-	Nikolich	5	05:38 PM
11.10	II	Liaison to China	-	Nikolich	5	05:43 PM
11.11	MI	P&P -related activities review	-	Sherman	10	05:48 PM
11.12	II	Network Services Update	-	IDEAL	5	05:58 PM
11.13			-			06:03 PM
		ADJOURN SEC MEETING	-	Nikolich		06:00 PM
		ME - Motion, External		MI - Motion, Internal		
		DT- Discussion Topic		II - Information Item		
		Special Orders				

**Motion: to approve the agenda**

**Moved: Stevenson/Hawkins**

**Result: 15/0/0 Passes**

4.00	II	TREASURER'S REPORT	-	Hawkins	10	01:13 PM
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**IEEE Project 802**  
**Estimated Statement of Operations**  
**November 2004 Plenary Session**  
**San Antonio, TX**  
**As of Nov 14, 2004**

<b>Meeting Income</b>	<i>Estimate</i>	<i>Budget</i>	<i>Variance</i>
Registrations	1,579	1,250	329
Registration income	507,500	400,000	107,500
Deadbeat collections	0	0	0
Bank interest	75	60	15
Other income	0	0	0
<b>TOTAL Meeting Income</b>	<b>507,575</b>	<b>400,060</b>	<b>107,515</b>
<b>Meeting Expenses</b>	<i>Estimate</i>	<i>Budget</i>	<i>Variance</i>
Audio Visual Rentals	23,500	15,000	(8,500)
Audit	0	0	0
Bank Charges	70	278	208
Copying	3,600	3,500	(100)
Credit Card Discount	13,703	10,800	(2,903)
Equipment Expenses	16,000	9,000	(7,000)
Get IEEE 802 Contribution	118,425	93,750	(24,675)
Insurance	0	0	0
Meeting Administration	80,000	76,838	(3,162)
Misc Expenses	12,000	8,500	(3,500)
Network	110,450	66,388	(44,062)
Phone & Electrical	9,000	2,100	(6,900)
Refreshments	140,000	100,000	(40,000)
Shipping	4,500	4,500	0
Social	54,633	40,000	(14,633)
Supplies	500	500	0
<b>TOTAL Meeting Expense</b>	<b>586,381</b>	<b>431,154</b>	<b>(155,227)</b>
<b>NET Meeting Income/Expense</b>	<b>(78,806)</b>	<b>(31,094)</b>	<b>(47,712)</b>
<b>Analysis</b>			
Refreshments per registration	89	80	(9)
Social per registration	35	32	(3)
Meeting Administration per registration	51	61	11
Networking per registration	70	53	(17)
Get IEEE 802 Contribution per registration	75	75	0
Surplus/Deficit per registration	(50)	(25)	(25)
Pre-registration rate	0.572	0.600	
<b>Estimated Other Liabilities</b>	<b>0</b>		
<b>Nov 2004 Operating Reserve</b>	<b>359,565</b>		
<b>Projected March 2005 Operating Reserve</b>	<b>280,760</b>		

John indicated that he believes the projected operating reserve is still adequate for upcoming expenses. Pat asked that any significant committed expense (such as the education program) be subtracted from the reserve. John agreed that this is a good idea.

**4.01 II Announcements from the Chair - Nikolich 5 01:16 PM**

Paul announced that Tony Jeffree is now in his 20<sup>th</sup> year in service to IEEE 802. Paul presented Tony with a card and a bottle of Lagavullin Single Malt Scotch and the thanks of the EC for his work and contributions.

Geoff presented Paul with an honorary San Antonio Sheriff badge.

<b>Category (* = consent agenda)</b>		-	
<b>5.00</b>	<b>IEEE Standards Board Items</b>	-	<b>01:20 PM</b>
<b>5.01</b>	<b>ME 802.3REVam to sponsor ballot</b>	- <b>Grow</b>	<b>10 01:20 PM</b>

# MyBallot

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- Beta Test using P802.3REVam
- Invitation closed
  - IEEE Web Account issues like problems getting password reset/reminder
  - No ability to add an individual to the ballot group
  - Had to extend the ballot to minimize the probability of an appeal
  - No explicit approval of the ballot group, implicit in initiating the ballot
- Next comes an actual ballot -- concerns
  - Comment tool limitations?
  - No redundancy in indexing
  - Sort challenges
- Plan ahead for 2005
  - Recommended a myBallot playground
  - Recommended training preference to those with imminent ballots
  - Encourage members to get web accounts activated

# 802.3 MOTION #4 (REVam)

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IEEE 802.3 accepts the resolution to all comments received in the Working Group recirculation ballot of IEEE P802.3REVam Draft 1.1, and authorises the editor to generate Draft 2.0.

IEEE 802.3 requests that the IEEE 802 SEC forwards IEEE P802.3REVam Draft D2.0 for Sponsor Ballot.

IEEE 802.3 authorises the IEEE P802.3REVam Task Force to conduct meetings and recirculation ballots as necessary to resolve comments received during the Sponsor Ballot.

IEEE 802.3 requests that the Working Group Chair to presubmit IEEE P802.3REVam draft to REVCOM for the March 2005 Standards Board meeting or subsequent continuous processing at discretion of the IEEE 802.3 Chair. The Sponsor ballot results will be reviewed at the March IEEE 802 plenary meeting.

M: D.Law

S: G.Thompson Tech 75%

Y: 58 N: 0 A: 4

PASSED Date: 18-Nov-2004 1:55PM

# P802.3REVam WG Ballot

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- Initial ballot passed and met abstain ratio
- Recirculation ballot passed
  - Some out of scope comments
  - All in scope comments withdrawn to be resubmitted at SB



# P802.3REVam to SB

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The LMSC EC authorizes forwarding of P802.3REVam/D2.0 to sponsor ballot

M: Bob Grow

S: Tony Jeffree

Y: 15 N: 0 A: 0

**Motion: to authorize 802.3REVam to be forwarded to NESCOM**

**Moved: Grow/Jeffree**

**Result: 15/0/0 Passes**

5.02 ME 802.3ar Congestion Management PAR to NESCOM

- Grow

10

01:27 PM

## 802.3 MOTION #12 (P802.3ar)

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Move that 802.3 approve the congestion management PAR, per par\_0904.pdf and as modified in response to 802.1 and 802.17 comments, and forward the PAR and 5 Criteria to the 802 SEC and NesCom for approval

M: Ben Brown

S: Richard Brand

Y: 36 N: 1 A: 15 MOTION PASSES

Date: 18-Nov-2004 4:00PM Technical 75%

# Approve P802.3ar

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The LMSC approves P802.3ar  
Congestion management PAR and Five  
Criteria for consideration at the  
December Standards Board meetings.

M: Bob Grow

S: Tony Jeffree

Y: 15 N: 0 A: 0

**Motion: to approve P802.3ar PAR and 5 criteria for consideration at the December Standards Board meetings.**

**Moved: Grow/Jeffree**

**Result: 15/0/0 Passes**

5.03 ME 802.3as Frame Extension PAR to NESCOM - Grow 5 01:30 PM

# 802.3 MOTION #12(P802.3as)

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Move that 802.3 WG forward the Frame Expansion five criteria and PAR, per FESG\_5\_criteria\_0411.pdf and FESG\_PAR\_0411.pdf to 802 SEC for approval

M: K. Daines on behalf of the Frame Expansion Study Group

- Y: 29 N: 0 A: 6 MOTION PASSES  
Date: 18-Nov-2004 5:14PM Technical 75%

**Motion: To approve the PAR and 5 Criteria for consideration at the December Standards Board meetings.**

**Moved: Grow/Jeffree**

**Result: 15/0/0 Passes**

5.04 ME 802.15.1REVa to REVCOM

- Heile

10

01:35 PM

# Sponsor Ballot Results on 802.15.1-REVa-D5

**1. This ballot has met the 75% returned ballot requirement.**

67 eligible people in this ballot group.

48 affirmative votes

1 negative votes with comments

0 negative votes without comments

5 abstention votes

=====

54 votes received = 80% returned

9% abstention

**2. The 75% affirmation requirement is being met.**

48 affirmative votes

1 negative votes with comments

=====

49 votes = 97% affirmative



## Negative Vote Comments

- 1 Voter maintained two comments of his negative vote, all other comments were satisfied.

## Recirculated Unsatisfied Comments

- **Comment:**  
Using the Bluetooth core v.12 as a normative reference is an issue because the draft is largely a copy of this document. If the Bluetooth core v1.2 specification is a normative reference then most of this document can be deleted.
- **Proposed Resolution:**  
Either a) delete all portions of the draft standard that are copied from BT core v1.2 and replace them with a reference to the specification or b) Remove the listing of BT core v1.2 from the normative references. Rebuttal: The fact that there parts of the normative references are an exact duplicates of the present specification is one reason why this standard does not belong in the 802 process.
- **Reason for Decline:**  
Those Bluetooth Documents are referenced and they contain information that is not contained in this standard. There are some instances of replicating (or amending) the text and other instances of referencing the text. The BRC believes that this is a reasonable approach which improves upon the Bluetooth Spec.
- **Comment:**  
This standard does not conform to the IEEE 802 procedure where the WG is empowered to make changes. For this standard, the WG can only suggest changes, the Bluetooth SIG is the only body that can authorize normative changes.
- **Proposed Resolution:**  
Move this activity to a more appropriate group, e.g., the IEEE CAG would be the correct home for this activity. Without the right of the WG to make changes to the draft standard, this document does not belong in IEEE 802. Rebuttal: The fact that the group approved this process initially does not mean that it is required to continue with it when it is clear that this process is not appropriate for IEEE 802 group.
- **Reason for Decline:**  
We agree, but this should have been raised and resolved when 802 agreed on the terms on which they would create this standard. There is now a commitment which the TG and WG must fulfill.

# Sponsor Ballot Recirculation Results on 802.15.1-REVa-D6

- **This ballot has met the 75% returned ballot requirement.**

67 eligible people in this ballot group.

50 affirmative votes

1 negative votes with comments

0 negative votes without comments

6 abstention votes

=====

57 votes received = **85% returned**

10% abstention

- **The 75% affirmation requirement is being met.**

50 affirmative votes

1 negative votes with comments

=====

51 votes = **98% affirmative**

## Motion to Forward to RevCom

- Move that the 802 EC forward 802.15.1-REVa-D6 to RevCom for final action

Moved: Heile

Second: Kerry

**Motion: to forward 802.15.1-REVa-D6 to REVCOM for final action**

**Moved: Heile/Kerry**

**Result: 15/0/0 Passes**

5.05 ME 802.1ah PAR to NESCOM

- Jeffrey

5

01:38 PM

# MOTION

- 802.1 requests permission from the SEC to forward the P802.1ah “Provider Backbone Bridges” PAR to NesCom.
- 802.1 Proposed: bottorff Second: wright
  - For: 20 Against: 0 Abstain:4
- SEC Proposed: Jeffree, Second:
  - For: Against: Abstain:

**Motion: to forward the 802.1ah Provider Backbone Bridge PAR to NESCOM**

**Moved: Jeffree/Sherman**

**Result: 15/0/0 Passes**

5.06 ME 802.1aj PAR to NESCOM

- Jeffree

5 01:41 PM

# MOTION

- 802.1 requests permission from the SEC to forward the P802.1aj “Two port MAC Relay” PAR to NesCom.
- 802.1 Proposed: finn  
Second:bottorff
  - For: 23 Against: 0 Abstain:0
- SEC Proposed: Jeffree, Second:
  - For: Against: Abstain:



# P802.1aj Supporting Information

- Draft PAR has been updated from text precirculated under 30-day rule:  
<http://www.ieee802.org/1/files/public/docs2004/802-1aj-draft-par-for-30-day-rule-revised.htm>
- 5C's unchanged from text precirculated under 30-day rule:  
<http://www.ieee802.org/1/files/public/docs2004/802-1-aj-5c.pdf>
- Comments received, from 802.17 and Pat Thaler, and 802.1 responses, have been circulated to the SEC exploder
- Minor editorial changes made

**Motion: To forward the 802.1aj “Two Port MAC Relay” PAR to NESCOM**  
**Moved: Jeffree/Sherman**

Pat would like to see something done to allow people to find the material, such as updating the keywords in the .1Q revision. Tony agreed that this is done in the revision process. Geoff asked whether there is a layer violation in either the .17 or .1 standards that would not allow it to take advantage of this item. Tony indicates that this is intended to link two point to point media, not a point to point medium to a shared medium. Geoff maintained that this is exemplifying his concern. Bob Grow indicated that he believes that this should be a bridge.

Mike reported that .17 does accept the response from .1. He said that .17 believes that it has some work to do to explain to .1 how a subset of its MAC would be applicable.

**Result: 13/1/1 Passes**

5.07 ME 802.1ak PAR to NESCOM

- Jeffree

5

01:46 PM

# MOTION

- 802.1 requests permission from the SEC to forward the P802.1ak “MRP” PAR to NesCom.
- 802.1 Proposed: finn  
Second:wright
  - For: 22 Against: 0 Abstain:1
- SEC Proposed: Jeffree, Second:
  - For: Against: Abstain:

# P802.1ak Supporting Information

- Formerly labelled as P802.1ai; label changed as per Pat Thaler's comment
- Draft PAR has been updated from text precirculated under 30-day rule:  
<http://www.ieee802.org/1/files/public/docs2004/802-1ak-draft-par-for-30-day-rule-revised.htm>
- 5C's unchanged from text precirculated under 30-day rule:  
<http://www.ieee802.org/1/files/public/docs2004/802-1ak-5c.pdf>
- Comments received from Pat Thaler and 802.1 responses have been circulated to the SEC exploder
- Minor editorial changes made

**Motion: To forward the 802.1ak "MRP" PAR to NESCOM**

**Moved: Jeffree/Thaler**

**Result: 14/0/0 Passes**

5.08 ME Conditional forwarding of 802.1AB to REVCOM

- Jeffree

5

01:50 PM

# MOTION

- 802.1 requests conditional approval from the SEC, as per current P&P, to forward the P802.1AB draft to RevCom following completion of recirculation balloting
- 802.1 Proposed: wright Second: bell
  - For: 22 Against: 0 Abstain:0
- SEC Proposed: Jeffree, Second:
  - For: Against: Abstain:

# P802.1AB: Supporting Information

- Second Sponsor Ballot recirc closes 19<sup>th</sup> November (today)
- Voting:
  - First recirc results were:
    - 81% response
    - 45 Yes, 1 No, 2 Abstain (= 97% approval)
- No outstanding “No” votes/comments at present:
  - The one remaining “NO” voter has voted “YES” on the 2nd recirc; no further “NO” votes have been received so far.
- Resolution plan:
  - Third recirculation ballot in November timeframe
  - Comment resolution (if necessary) in January Interim meeting

**Motion: To conditionally forward the 802.1AB PAR to REVCOM following completion of recirculation balloting.**

**Moved: Jeffree/Grow**

The report of the second recirculation will be sent to the EC reflector.

**Result: 15/0/0**

5.09 ME 802.11u PAR to NESCOM

- Kerry

5

01:54 PM



Agenda#:

Date:

Time:

# IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: HEILE

**Request the IEEE 802 Executive Committee approve the IEEE 802.11u  
(*Interworking with External Networks*) PAR (11-04-506r11) and forward to  
NESCOM; and approve 5 Criteria (11-04-507r4) documents.**

802.11 WIEN SG Results

SG: Stephen McCann/Charles Wright

Result: (11-1-14) Approved

Stephen McCann/David Hunter

Result: (11-0-16) Approved

WG: Moved by Stephen McCann on behalf of the Study Group

802.11 WG Results

– Result: (106-1-5) Approved

Approve:

Do Not Approve:

Abstain:

**Motion: To approve the 802.11u PAR and 5 criteria and forward to NESCOM**

**Moved: Kerry/Heile**

Ajay related that 802.21 originally thought there may be an overlap in the work with this proposal. After discussion, it was felt that the formal interaction between .21 and this task group would allow any concerns to be dealt with. He speaks in favor of this motion.

“It is worth noting that an agreement has been made between IEEE 802.21 and IEEE 802.11 WIEN SG and resultant Task Group for an ongoing formal coordination in order to avoid any overlap in their scopes.” This text is in section 16 of the PAR.

A point was made that this statement indicates there is a problem with the architecture and 802.11.

802.11 will work closely with the architecture group on its standards and its amendments.

**Results: 15/0/0**

**Motion: to approve that there is an assumption that with the approval of all of the previous PARs in this meeting, the five criteria are also approved.**

**Moved: Stevenson/Jeffree**

**Result: 14/0/0**

Agenda#:

Date:

Time:

# IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: HEILE

**Request the IEEE 802 Executive Committee approve the IEEE 802.11v  
(*Wireless Network Management*) PAR (11-04-0537-08-0wnm) and  
forward to NESCOM; and approve 5 Criteria (11-04-0684r1) documents.**

802.11 WNM SG Results

SG: Richard Pain/Joe Kwak

Result: (14-1-1) Approved

SG: Richard Kennedy/Clint Walker

Result: (23-0-4) Approved

WG: Moved by Harry Worstell on behalf of the Study Group

802.11 WG 40 Day Letter Ballot 72 Results

– Result: (253-42-25) Approved

Approve:

Do Not Approve:

Abstain:

**Motion: To approve the 802.11v PAR and 5 criteria and forward to NESCOM**  
**Moved: Kerry/Heile**

802.11 conducted a 40-day letter ballot with the result of 253-42-25 of a membership of 412 voting members. On the floor of 802.11 a motion to withdraw the PAR was made. It failed 36-36-40. There were no changes to the PAR during the 40-day ballot or this week.

Tony related that the feeling in the 802.1 plenary was that it is odd that definition of an AP MIB while the AP architecture is still being developed. Bob O'Hara, chair of 802.11m, responded that the AP functional chair's ad hoc committee will be providing description text of the AP functionality to TGM by March for inclusion in the 802.11 revision draft, scheduled to go to sponsor ballot out of the March session.

From the floor, Roger Durand, a member of 802.11, read the following statement:

“ This PAR is not mature and is extremely broad or vague to the point that it is quite possible that the group could be “hijacked” to do just about anything within it that was not within its original purview. This is similar to the 802.11e PAR and 5 criteria that at one point had many different and diverse efforts going on within it, I fear history is about to repeat itself. The Study Group little more then one week ago passed an email ballot at 86%. Yet this week the Study Group spent the vast majority of its time trying to “correct”, “fix” and “rewrite” the PAR and 5 criteria. Already efforts have appeared that were not within its original scope. We need a more focused PAR to guide the chair to a successful conclusion relative to scope. This morning I made a motion to withdraw the PAR and 5 criteria. That motion yielded 50% support, indicating the support for this PAR and 5 criteria no longer have 75% support within the working group. ”

There was discussion in the study group during the week, some supporting the rewriting of the PAR, some narrowing the PAR, and some to leave it alone. There were two presentations made, individual positions on changes desired to be made to the PAR. There were no votes taken in the study group. Characterizing the study group as “rewriting” the PAR during the week is not correct.

There was considerable concern expressed about the procedure used by the WG to conduct this electronic ballot, particularly whether there was debate and ability to address comments. It was pointed out that there was a technical problem at the Berlin interim that prevented addressing the PAR, a meeting at which there was a quorum. That quorum approved the conduct of an electronic ballot on the email reflector. It was pointed out that this is not a draft and that it is not clear that the requirements of comment resolution apply.

**Result: 6/4/4 Passes**

## IEEE-SA STANDARDS BOARD

### PROJECT AUTHORIZATION REQUEST (PAR) FORM (2004)

The submittal deadlines for the year 2004 are available.

Prior to submitting your PAR, please review the NesCom Conventions.

1. ASSIGNED PROJECT NUMBER P  (Please leave blank if not available)

2. SPONSOR DATE OF REQUEST Day:  Month:  Year: 2004

3. TYPE OF DOCUMENT (Please check one)

- Standard for** {document stressing the verb "shall"}
- Recommended Practice for** {document stressing the verb "should"}
- Guide for** {document in which good practices are suggested, stressing the verb "may"}

4. TITLE OF DOCUMENT:

**Draft**

5. LIFE CYCLE

- Full-Use
- Trial-Use

6. TYPE OF PROJECT

- New document
- Revision of an existing document (indicate Number and year existing document was published in box to the right):
- Amendment to an existing document (indicate Number and year existing document was published in box to the right):
- Corrigendum to an existing document (indicate Number and year existing document was published in box to the right):

IEEE 802.16-2004  
(####-YYYY)

Modified PAR (indicate PAR Number and Approval Date here: P  - Day:   
Month:  Year:  )

Is this project in ballot now?  Yes  No  
State reason for modifying the PAR in [Item #19](#).

## 7. WORKING GROUP INFORMATION:

Name of Working Group:

IEEE 802.16 Working Group on Broadband Wireless Access

Approximate Number of Expected Working Group Members:

## 8. CONTACT INFORMATION FOR WORKING GROUP CHAIR (must be an SA member as well as an IEEE and/or Affiliate Member)

Name of Working Group Chair: First Name:  Last Name:

Telephone:

FAX:  E-mail:

## 9. CONTACT INFORMATION FOR CO-CHAIR/OFFICIAL REPORTER, Project Editor or Document Custodian if different from the Working Group Chair (must be an SA member as well as an IEEE and/or Affiliate Member)

Name of Co-Chair/Official Reporter (if different than Working Group Chair): First Name:

Last Name:

Telephone:  FAX:  E-mail:

## 10. CONTACT INFORMATION FOR SPONSORING SOCIETY OR STANDARDS COORDINATING COMMITTEE

Sponsoring Society and Committee:  (Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))

Sponsor Committee Chair: First Name:  Last Name:

Telephone:

FAX:

E-mail:

**Standards Coordinator (Power Engineering Society Only):**

Standards Coordinator: First Name:  Last Name:

Telephone:

FAX:

E-mail:

**IF THIS PROJECT IS BEING SPONSORED BY TWO SPONSORS, PLEASE COMPLETE THE INFORMATION BELOW**

Sponsoring Society and Committee:  (Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))

Sponsor Committee Chair: First Name:  Last Name:

Telephone:

FAX:

E-mail:

**Standards Coordinator (Power Engineering Society Only):**

Standards Coordinator: First Name:  Last Name:

Telephone:

FAX:

E-mail:

**11. SPONSOR BALLOTING INFORMATION (Please choose one of the following):**

- Individual Balloting
- Entity Balloting
- Mixed Balloting (combination of Individual and Entity Balloting)

**Expected Date of Submission for Initial Sponsor Ballot:** Month:  Day:  Year:  )

**Please review the PAR form three months prior to submitting your draft for ballot to ensure that the title, scope and purpose on the PAR form match the title, scope and purpose on the draft. If they do not match, you will need to submit a modified PAR.**

**Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the invitation pool.**

**12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM** Day:  Month:  Year:

**If this is a MODIFIED PAR and the completion date is being extended past the original four-year life of the PAR, please answer the following questions. If this is not a modified PAR, please go to question #13**

- a. Statement of why the extension is required:
- b. When did work on the first draft begin? Day:  Month:  Year:
- c. How many people are actively working on the project?:
- d. How many times a year does the working group meet in person?:
- e. How many times a year does the working group meet using electronic means (i.e. teleconference, e-mail, web-based meetings)?:
- f. How frequently is a draft version circulated to the working group?:
- g. How much of the Draft is stable (Format: NN%)?: %
- h. How many significant working revisions has the Draft been through?:
- i. Briefly describe what the development group has already accomplished, and what remains to be done:

### **13. SCOPE OF PROPOSED PROJECT**

Please detail the projected output including technical boundaries. Please be brief (less than 5 lines).

FOR REVISED DOCUMENTS ONLY - Please detail the projected output including the scope of the original document, amendments and additions.



This amendment specifies improved mechanisms, as policies and medium access control enhancements, to enable coexistence among license-exempt systems based on IEEE Standard 802.16 and to facilitate the coexistence of such systems with primary users.

Is the completion of this document contingent upon the completion of another document?

Yes (with detailed explanation below)       No

---

#### **14. PURPOSE OF PROPOSED PROJECT**

Please clearly and concisely define "why" the document is being done. Please be brief (less than 5 lines).

FOR REVISED DOCUMENTS ONLY - Please detail the projected output including the scope of the original document, amendments and additions.

This amendment provides measures to increase the efficiency and robustness of license-exempt operation.

**14a. Please give the specific reason for the standardization project, with particular emphasis on the problem being solved, the benefit to be received and target users or industries.**

This standard will improve the coexistence in license-exempt (LE) operation for IEEE 802.16 fixed wireless systems. It will reduce the potential for interference caused by such systems sharing the same LE bands. The mechanisms specified need to be widely implemented and interoperable for their benefits to be realized, so standardization is required. As result there will be improved user service experience and increased robustness and efficiency of spectrum use. This will expand the market opportunities for enterprise, service provider, and consumer applications.

---

#### **15. INTELLECTUAL PROPERTY (Answer each of the questions below.)**

Sponsor has reviewed the [IEEE-SA patent material](#) with the working group?  Yes  No

Sponsor is aware of [copyright](#) permissions needed for this project?  Yes  No

If yes, please explain:

Sponsor is aware of [trademarks](#) that apply to this project?  Yes  No

If yes, please explain:

Sponsor is aware of possible registration of objects or numbers to be included in or used by this project?  Yes  No

If yes, please explain:

---

**16. ARE THERE OTHER DOCUMENTS OR PROJECTS WITH A SIMILAR SCOPE?**

Yes (with detailed explanation below)  No

**If Yes, please answer the following:**

Sponsor Organization:

Project Number:

Project Date: Day:  Month:  Year:

Project Title:

---

**17. FUTURE ADOPTIONS**

Is there potential for this document (in part or in whole) to be adopted by another national, regional or international organization?

**If Yes, the following questions must be answered:**

Technical Committee Name and Number: ITU  TC  SC  WG

Other Organization Contact Information:

Contact Name: First Name: Jose  Last Name:

Costa

Contact Telephone Number: +1 613 763 7574

Contact FAX Number: +1 613 765 1225

Contact E-mail address: j.costa@ieee.org

**18. IF THE PROJECT WILL RESULT IN ANY HEALTH, SAFETY, OR ENVIRONMENTAL GUIDANCE THAT AFFECTS OR APPLIES TO HUMAN HEALTH OR SAFETY, PLEASE EXPLAIN, IN FIVE SENTENCES OR LESS.**

No.

**19. ADDITIONAL EXPLANATORY NOTES{Item Number and Explanation}**

I acknowledge having read and understood the IEEE Code of Ethics. I agree to conduct myself in a manner which adheres to the IEEE Code of Ethics when engaged in official IEEE business.

The PAR Copyright Release and Signature Page must be submitted by FAX to +1 732-875-0695 to the NesCom Administrator before this PAR will be sent on for NesCom and Standards Board approval.

## Five Criteria for IEEE P802.16h Licence-Exempt Coexistence PAR

### IEEE P802.16h Five Criteria, Revision 1

#### CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

##### ***Broad Market Potential***

*A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:*

- a) Broad sets of applicability.*
  - b) Multiple vendors and numerous users.*
  - c) Balanced costs (LAN versus attached stations).*
- a) IEEE 802 standards for wireless devices are widely implemented and widely used for numerous applications, such as local area networking, wireless Internet hotspots and home networks. Tens of millions of LE systems have been deployed from multiple vendors and are operating in LE bands. The IEEE 802.16 standard includes specifications for operation in the LE bands. As networks based on IEEE 802.16 cover larger areas, interference between IEEE 802.16-based LE systems poses a more significant problem than, for example, IEEE 802.11-based technologies. Radio compatibility and coexistence among multi-vendor IEEE 802.16-based systems is an important aspect of these new systems to mitigate LE performance impairment and ensure acceptance in the marketplace.
  - b) The goal of this project is to ensure that multi-vendor IEEE 802.16-based systems may be readily deployed in the LE bands with reduced interference to other, geographically co-located IEEE 802.16-based LE services. Such a standards-based license exempt coexistence protocol is essential for mitigating potential concerns over 802.16 inter-system interference in license exempt bands. The result will increase significantly the market potential.
  - c) Given that a base station in a point-to-multipoint network can serve many user stations, improved coexistence will support an increase in the number of attached stations and the cost of the equipment will therefore be effectively spread over more users.

##### ***Compatibility***

*IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802.Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802.*

*Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.*

The proposed standard will conform with the IEEE 802 Overview and Architecture, IEEE 802.1D, IEEE 802.1Q and parts of IEEE 802.1f.

##### ***Distinct Identity***

*Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized project shall be:*

- a) Substantially different from other IEEE 802 standards.*

- b) *One unique solution per problem (not two solutions to a problem).*
- c) *Easy for the document reader to select the relevant specification.*

- a) No current wireless project addresses the issue of coexistence of different IEEE 802.16 compatible systems operating in the shared LE bands.
- c) A separate clause addressing LE coexistence will be provided, addressing the proposed modifications, to ease the readability of the standard.

### ***Technical Feasibility***

*For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:*

- a) *Demonstrated system feasibility.*
- b) *Proven technology, reasonable testing.*
- c) *Confidence in reliability*

- a) Ideas discussed in IEEE 802.16 Working Group Study Group on License-Exempt Coexistence, demonstrate the technical feasibility of the proposed goal. Inter-system communication and the scheduled nature of the 802.16 systems may be the basics for achieving the desired spectrum sharing.
- b) The new protocols may use technology elements already defined in 802.16 or implemented in other wireless systems.
- c) Systems using shared media rely on contention based multiple access protocols to share radio channels. Several wireless systems, including IEEE 802.11, use such mechanisms.

### ***Economic Feasibility***

*For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated), for its intended applications. At a minimum, the proposed project shall show:*

- a) *Known cost factors, reliable data.*
- b) *Reasonable cost for performance.*
- c) *Consideration of installation costs.*

- a) The economic feasibility of IEEE 802.16–based wireless devices is well documented.
- b) The device cost will not be affected by the new protocols.
- c) The operational costs will be lowered by including dynamic interference mitigation techniques in the IEEE 802.16 standards.

**Motion: to approve the submittal to NESCOM of the 802.16h PAR and approve the associated five criteria.**

**Moved: Marks/Shellhammer**

**Result: 14/0/0**

5.12 ME 802.17b PAR to NESCOM

- Takefman

5

02:45 PM



# 802.17 WG Motions



- Move to request the 802 EC to forward the PAR for 802.17b to NESCOM.

11/18/2004 9:56am

- M: Holness S: Turner

Y: 10 N:0 A:0



# EC Motion

- Move to approve the 5 Criteria, and forward the PAR for P802.17b (as previously distributed) to NESCOM.

M: Takefman                      S:

Y:                      N:                      A:



## IEEE-SA STANDARDS BOARD

### PROJECT AUTHORIZATION REQUEST (PAR) FORM (2004)

The submittal deadlines for the year **2004** are available.

Prior to submitting your PAR, please review the [NesCom Conventions](#).

1. **ASSIGNED PROJECT NUMBER** P  (Please leave blank if not available)

2. **SPONSOR DATE OF REQUEST** Day:  Month:  Year: 2004

3. **TYPE OF DOCUMENT** (Please check one)

- Standard for** {document stressing the verb "shall"}
- Recommended Practice for** {document stressing the verb "should"}
- Guide for** {document in which good practices are suggested, stressing the verb "may"}

4. **TITLE OF DOCUMENT:**

**Draft**

5. **LIFE CYCLE**

- Full-Use**
- Trial-Use**

6. **TYPE OF PROJECT**

- New document
- Revision of an existing document (indicate Number and year existing document was published in box to the right):
- Amendment to an existing document (indicate Number and year existing document was published in box to the right):  (####-YYYY)
- Corrigendum to an existing document (indicate Number and year existing document was published in box to the right):

Modified PAR (indicate PAR Number and Approval Date here: P  - Day:  Month:  Year: )

Is this project in ballot now?  Yes  No

State reason for modifying the PAR in [Item #19](#).

7. **WORKING GROUP INFORMATION:**

**Name of Working Group:**

**Approximate Number of Expected Working Group Members:**

---

**8. CONTACT INFORMATION FOR WORKING GROUP CHAIR (must be an SA member as well as an IEEE and/or Affiliate Member)**

Name of Working Group Chair: First Name:  Last Name:   
 Telephone:  FAX:  E-mail:

---

**9. CONTACT INFORMATION FOR CO-CHAIR/OFFICIAL REPORTER, Project Editor or Document Custodian if different from the Working Group Chair (must be an SA member as well as an IEEE and/or Affiliate Member)**

Name of Co-Chair/Official Reporter (if different than Working Group Chair): First Name:   
 Last Name:   
 Telephone:  FAX:  E-mail:

---

**10. CONTACT INFORMATION FOR SPONSORING SOCIETY OR STANDARDS COORDINATING COMMITTEE**

Sponsoring Society and Committee:  (Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))  
 Sponsor Committee Chair: First Name:  Last Name:   
 Telephone:  FAX:  E-mail:

**Standards Coordinator (Power Engineering Society Only):**

Standards Coordinator: First Name:  Last Name:   
 Telephone:  FAX:  E-mail:

**IF THIS PROJECT IS BEING SPONSORED BY TWO SPONSORS, PLEASE COMPLETE THE INFORMATION BELOW**

Sponsoring Society and Committee:  (Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))  
 Sponsor Committee Chair: First Name:  Last Name:   
 Telephone:  FAX:  E-mail:

**Standards Coordinator (Power Engineering Society Only):**

Standards Coordinator: First Name:  Last Name:

Telephone:

FAX:

E-mail:

**11. SPONSOR BALLOTING INFORMATION** (Please choose one of the following):

- Individual Balloting  
 Entity Balloting  
 Mixed Balloting (combination of Individual and Entity Balloting)

Expected Date of Submission for Initial Sponsor Ballot: Month:  Day:  Year:  )

Please review the PAR form three months prior to submitting your draft for ballot to ensure that the title, scope and purpose on the PAR form match the title, scope and purpose on the draft. If they do not match, you will need to submit a modified PAR.

Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the invitation pool.

**12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM** Day:  Month: Year: 

If this is a MODIFIED PAR and the completion date is being extended past the original four-year life of the PAR, please answer the following questions. **If this is not a modified PAR, please go to question #13**

a. Statement of why the extension is required:

b. When did work on the first draft begin?

Day:  Month:  Year: 

c. How many people are actively working on the project?:

d. How many times a year does the working group meet in person?:

e. How many times a year does the working group meet using electronic means (i.e. teleconference, e-mail, web-based meetings)?:

f. How frequently is a draft version circulated to the working group?:

g. How much of the Draft is stable  
(Format: NN%)?:  %

h. How many significant working  
revisions has the Draft been through?:

i. Briefly describe what the  
development group has already  
accomplished, and what remains to be  
done:

### 13. SCOPE OF PROPOSED PROJECT

Please detail the projected output including technical boundaries. Please be brief (less than 5 lines).

FOR REVISED DOCUMENTS ONLY - Please detail the projected output including the scope of the original document, amendments and additions.

This project amends 802.17-2004 adding one or more new clauses defining optional extensions to support increased spatial reuse on the media. 802.17-2004 allows spatial reuse for ring local unicast transmissions, this amendment adds support for spatial reuse of other frame transmissions (e.g. remote bridging as seen in 802.1 D/Q). Changes to existing clauses of 802.17-2004 are permitted if required to support the new clauses.

Is the completion of this document contingent upon the completion of another document?

Yes (with detailed explanation below)     No

### 14. PURPOSE OF PROPOSED PROJECT

Please clearly and concisely define "why" the document is being done. Please be brief (less than 5 lines).

FOR REVISED DOCUMENTS ONLY - Please detail the projected output including the scope of the original document, amendments and additions.

802.17-2004 provides spatial reuse for ring-local unicast transmissions. This limits spatial reuse to host stations (e.g. routers) attached to the ring and precludes other devices that(eg. bridges). The amendment will extend the class of frame types and device types that can achieve spatial reuse to significantly improve bandwidth efficiency on Resilient Packet Rings.

**14a. Please give the specific reason for the standardization project, with particular emphasis on the problem being solved, the benefit to be received and target users or industries.**

Spatial Reuse is achieved by stations stripping a frame from the media once it has reached its destination. This differs from previous 802 ring technologies where the frame was required to circulate around the entire ring. Destination stripping increases overall ring efficiency as bandwidth is not wasted with continued circulation of the frame.

---

**15. INTELLECTUAL PROPERTY (Answer each of the questions below.)**

Sponsor has reviewed the [IEEE-SA patent material](#) with the working group?  Yes  No

Sponsor is aware of [copyright](#) permissions needed for this project?  Yes  No

If yes, please explain:

Sponsor is aware of [trademarks](#) that apply to this project?  Yes  No

If yes, please explain:

Sponsor is aware of possible [registration of objects](#) or numbers to be included in or used by this project?

Yes  No

If yes, please explain:

A 48-bit multicast address to be used for control may be required from the IEEE RAC.

---

**16. ARE THERE OTHER DOCUMENTS OR PROJECTS WITH A [SIMILAR SCOPE](#)?**

Yes (with detailed explanation below)  No

**If Yes, please answer the following:**

Sponsor Organization:

Project Number:

Project Date: Day:   Month:  01  Year:

Project Title:

**17. FUTURE ADOPTIONS**

Is there potential for this document (in part or in whole) to be adopted by another national, regional or international organization?

**If Yes, the following questions must be answered:**

Technical Committee Name and Number:  TC  SC  WG

Other Organization Contact Information:

Contact Name: First Name:  Last Name:

Contact Telephone Number:

Contact FAX Number:

Contact E-mail address:

**18. IF THE PROJECT WILL RESULT IN ANY HEALTH, SAFETY, OR ENVIRONMENTAL GUIDANCE THAT AFFECTS OR APPLIES TO HUMAN HEALTH OR SAFETY, PLEASE EXPLAIN, IN FIVE SENTENCES OR LESS.**

**19. ADDITIONAL EXPLANATORY NOTES {Item Number and Explanation}**

I acknowledge having read and understood the [IEEE Code of Ethics](#). I agree to conduct myself in a manner which adheres to the IEEE Code of Ethics when engaged in official IEEE business.

The **PAR Copyright Release and Signature Page** must be submitted by FAX to +1 732-875-0695 to the [NesCom Administrator](#) before this PAR will be sent on for NesCom and Standards Board approval.



# 802.17b

## Spatially aware sublayer on RPR

# 5 Criteria

---

IEEE 802.17 WG — SABSG  
Ottawa, Ontario  
October, 2004



# Broad market potential

- Target market for RPR are service providers and network operators offering Ethernet services
  - In particular, service providers and network operators with a strong drive for bandwidth efficiency on the media in that market
- Efficiency improvements of RPR ring BW utilization widens the adoption of RPR for LAN/MAN networks
  - “Bridging in RPR Networks” – Amund Kvalbein (University of Oslo) shows the improvement in network performance when using an approach equivalent to the Spatially aware sublayer is used
  - Comparable savings/benefits when moving from a hub (un-switched) network to a switched network
- Spatially aware bridging was originally part of the draft standard and the WG chose to defer the work in order to maintain schedule





# Compatibility

- Compatible/consistent with base 802.17 and 802.17a standards
- Makes no changes to 802.1 sub layer service interfaces (802.1D ISS, 802.1Q E-ISS)



# Distinct identity

- There is are no other standards specifying enhancements to spatial reuse over RPR



# Technical feasibility

- Proprietary implementations of RPR provide spatial reuse for non ring-local traffic (e.g., 802.1D/Q bridging) and are currently deployed by major service providers



# Economic feasibility

- The optional RPR MAC sublayer that provides spatially aware bridging can be reasonably implemented in network processor, FPGA or ASIC technologies
- By not changing base 802.17 specification and maintaining compatibility with 802.1 specifications, existing implementations can be leveraged, minimizing the overall solution cost
- Existing deployment of proprietary implementations of this technology demonstrates economic viability for service providers

**Motion: to forward the 802.17b PAR and five criteria to NESCOM**

**Moved: Takefman/Jeffree**

**Result: 13/0/0**

5.13		-			02:40 PM	
6.00	<table border="1"><tr><td>Executive Committee Study Groups &amp; Working Groups</td></tr></table>	Executive Committee Study Groups & Working Groups	-			02:40 PM
Executive Committee Study Groups & Working Groups						
6.01		-			02:40 PM	
6.02		-			02:40 PM	
6.03		-			02:40 PM	
6.04		-			02:40 PM	
6.05		-			02:40 PM	
6.06		-			02:40 PM	
6.07		-			02:40 PM	
6.08		-			02:45 PM	
7.00	Break	-		15	02:45 PM	
8.00	<table border="1"><tr><td>IEEE-SA Items</td></tr></table>	IEEE-SA Items	-			02:55 PM
IEEE-SA Items						
8.01	MI Get IEEE802 Budget approval	-	Hawkins	10	02:55 PM	

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## Update 11

### For LMSC November Plenary

Karen Kenney, Assoc. Managing Director,  
Business Administration

16 November 2004, San Antonio, TX



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# **Downloads** (as of 7 Nov 2004)

- **Program to date** **1,748,936**
- **Year to date** **430,834**
- **Weekly average** **2,367**
- **Most requested**
  - **802.11™-1999, .11b-1999, .11a-1999, .11G-2003**
  - **802.3™-2002**

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# Downloads

Standard	2004	2003	2002	2001	Grand
	Totals	Totals	Totals	Totals	Total
802.11-1999.pdf	41,205	61,285	33,689	29,093	165,272
802.11b-1999.pdf	21,108	33,466	54,478	30,309	139,361
802.11a-1999.pdf	18,974	30,540	22,364	28,732	100,610
802.3-2002.pdf	35,535	39,767	6,478	-	81,780
802.1Q-1998.pdf	8,439	19,852	14,230	23,744	66,265
802.1D-1998.pdf	9,952	15,336	12,593	18,783	56,664
802.3-2002_part1.pdf	16,869	29,831	4,505	-	51,205
802.2-1998.pdf	8,535	11,615	10,492	19,045	49,687
802-1990.pdf	8	2	5,029	43,971	49,010
802.1X-2001.pdf	14,516	19,515	11,328	-	45,359
802-2001.pdf	14,745	25,927	2,952	-	43,624



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# User Type

USER	YTD Total	PTD Total	Monthly Avg
Academic/Student:	191,613	363,047	18,949
Other:	73,458	142,948	7,544
Network equipment manufacturer:	52,665	102,085	5,430
Public network service provider:	33,775	62,900	3,318
Network Software Developer/Manufacturer	36,056	57,292	3,327
Systems Administrator:	30,542	49,708	2,962
Standards Developer:	17,479	33,531	1,753
Private network service provider:	16,142	32,008	1,706
Network silicon manufacturer:	12,968	29,482	1,602
Government:	14,852	28,656	1,540
Journalist/Analyst/Author	6,575	10,694	641
Curious Citizen	74	74	74
Total	486,199	912,425	47,909

YTD=Year to date PTD=Program to date

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# Program Entries

## Jul 2004 – Nov 2004

- | <u>Std</u>        | <u>On or about</u> |
|-------------------|--------------------|
| • 802b™           | 21 Oct             |
| • 802.3ak™        | 1 Sep              |
| • 802.16™ Conf 02 | 25 Aug             |
| • 802.16.2™       | 17 Sep             |

## Dec 2004 – Mar 2005

- | <u>Std</u>        | <u>On or about</u> |
|-------------------|--------------------|
| • 802.1D™         | 9 Dec              |
| • 802.3ah™        | 7 Mar              |
| • 802.11i™        | 24 Jan             |
| • 802.16™ Conf 03 | 25 Dec             |
| • 802.17™         | 24 Mar             |

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# September Approvals

- | <u>IEEE Std</u>      | <u>Tentative Pub Date</u> |
|----------------------|---------------------------|
| • 802.17a            | 29 Oct                    |
| • 802.11j            | 29 Oct                    |
| • Also               |                           |
| • June - 802.16      | 1 Oct                     |
| • (December - 802.1x | 11 Dec)                   |

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# Reminders/Updates

- **Drafts Delivery Service**

<http://www.ili-info.com/ieee802drafts/>

Looking to take back

- **Shop IEEE improvements --> instant access**
- **Check out the new website**
- **SEC continuing commitment to provide drafts thru ballot upload function**
- **Plenary support for corporate sponsors**

# Motion

- To approve the budget as reviewed at the Nov 19 closing EC meeting for the continuation of the Get 802 program for the FY 2006 period (covering Nov, 2005, Mar 2006 and July 2006 plenary sessions).

**Motion: To approve the budget as reviewed at the Nov 19 closing EC meeting for the continuation of the Get 802 program for the FY 2006 period (covering Nov, 2005, Mar 2006 and July 2006 plenary sessions).**

**Moved: Hawkins/Rigsbee**

What is being proposed is a modest increase (3%) in the bottom line of the program and a more significant increased contribution to the program from 802. This is due to the decrease of the corporate contributions. John indicated that as long as our attendance remains high, as it is now, the increased funding will not be a problem. John expressed a concern about this program for the long term. He is concerned that, at some point in the future, our attendance will go down, putting this level of funding for the program in jeopardy.

A question was asked about what happens if we are unable to meet the financial obligations. The answer was that this triggers a renegotiation of the program.

**Result: 14/0/1 Passes**

8.02		-				03:05 PM
8.03		-				03:05 PM
8.04		-				03:05 PM
9.00		-				03:05 PM
9.01	ME	Approval of 802 filing with FCC on TV Band NPRM	-	Stevenson	5	03:08 PM

## 802.18 Motion to the EC

**Date:** 11/19/2004

**Motion by:** 802.18 – Stevenson

**Seconded by:**

### Moved:

To approve document 18-04-0056-00-00 (TV Band NPRM Comments) as an 802 Document, authorizing Carl Stevenson to make necessary non-substantive editorial cleanups and formatting changes, and to file the document with the FCC on behalf of IEEE 802 in a timely fashion.

Information: This document was approved unanimously by 802.18. And reviewed by an ad hoc group from 802.11 (none of the other Wireless WG Chairs responded to an invitation for review).

**Approve: Do Not Approve: Abstain: Motion:**

**Motion: to approve document 18-04-0056-00-00 as an 802 Document, authorizing Carl Stevenson to make necessary non-substantive editorial cleanups and formatting changes, and to file the document with the FCC on behalf of IEEE 802 in a timely fashion.**

**Moved: Stevenson/Rigsbee**

Two objections to the inclusion of additional restrictions on our own wireless operations were expressed and asked that these additional restrictions be removed.

Another objection was raised that the document under consideration was not distributed to the EC members.

Paul asked that the motion be withdrawn and that a 10-day EC email ballot be conducted on the motion.

Carl indicated that he does not believe there are any additional restrictions being placed on 802 devices beyond what is in the NPRM, ITU-R regulations.

**Paul removes the motion from the floor and declares that it will be submitted to a 5-day EC email ballot.**

There was no objection by the EC to this action.

Pat Thaler asked that in the future all items from 802.18 be indicated on the Monday EC agenda.



Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >
Title	<b>802.16 response to ITU-R WP 8F Questionnaire on the services and market for the future development of IMT-2000 and systems beyond IMT-2000</b>
Date Submitted	<b>2004-11-18</b>
Source(s)	IEEE 802.16 ad hoc group on ITU-R liaisons (Session #34)
Re:	In response to 802.16 call for input in the Chair's email on November 8, 2004.
Abstract	To facilitate the development of the Service/Market Analysis Report in preparation of WRC-07, ITU-R WP 8F has issued a Questionnaire containing survey questions to gather information on the analysis and forecast of services and market aspects from a range of organizations including organizations outside the ITU. This is a proposal in response to Question 4 of the above-mentioned Questionnaire on service and market forecast for other radio systems that might interwork with IMT-2000 and systems beyond IMT-2000.
Purpose	Approve and submit to ITU-R WP 8F
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.
Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < <a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a> >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair < <a href="mailto:chair@wirelessman.org">mailto:chair@wirelessman.org</a> > as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site < <a href="http://ieee802.org/16/ipr/patents/notices">http://ieee802.org/16/ipr/patents/notices</a> >.

# **Response to ITU-R WP 8F Questionnaire on the Services and Market for the Future Development of IMT-2000 and Systems Beyond IMT-2000**

*IEEE 802.16 ad hoc group on ITU-R liaisons*

## **Introduction**

It is our understanding that the Questionnaire's purpose is to gather information on analyses and forecasts of services and markets that will be used to estimate the spectrum requirements for the future development of IMT-2000 and systems beyond IMT-2000. Data wireless access traffic includes not only IMT-2000 traffic, but also other traffic from applications such as RLAN in hotspots and wireless metropolitan area networks (MAN).

This response addresses the question<sup>1</sup> on "other radio systems", from the point of view of fixed and nomadic data traffic, with which IMT-2000 systems and beyond are envisaged to interwork. IEEE 802 systems are an integral part of broadband wireless services, delivered to fixed indoor and outdoor devices as well as nomadic devices and will thus contribute to the overall amount of data traffic.

This response is focused only on services and applications provided by IEEE 802.16 systems and it is expected to lead to a more accurate spectrum estimation by WP 8F. More precise knowledge of future spectrum requirements for fixed, nomadic and mobile broadband wireless services will benefit administrations, spectrum license holders, and equipment manufacturers with vested interests in broadband wireless access throughout the world.

Note that IEEE expertise is not in developing market forecasts. However, in order to be responsive to the specific questions posed in the WP 8F questionnaire, we have extracted forecast data from available research reports.

## **Service and market forecast for IEEE 802.16 systems**

IEEE 802.16 response to Question 4 of the above-mentioned Questionnaire is included in an appendix to this contribution.

It should be stated that service descriptions and market forecast contained in the appendix is based on industry market research data for IEEE 802.16 fixed and nomadic systems up to 2009 and does not include forecast for mobile systems. In this document, fixed and nomadic wireless access systems are as defined in Recommendation ITU-R F.1399.

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<sup>1</sup> Question 4

## Appendix

### Response to questionnaire on the services and market for the future development of IMT-2000 and systems beyond IMT-2000

#### Q4. Service and market forecast for other radio systems

*The future development of IMT-2000 and systems beyond IMT-2000 are envisaged to interwork with other radio systems such as wireless LAN and broadcasting systems. Please list any radio systems that might interwork with the future development of IMT-2000 and systems beyond IMT-2000, and forecast the future status of the parameters from Q3. Please indicate the percentage of users that subscribe to multiple systems/operators.*

Fixed and Nomadic broadband access based on the IEEE 802.16-2004<sup>2</sup> standard will be a significant part of future broadband wireless services delivered to a variety of user devices including fixed outdoor modems, indoor modems, laptops and other nomadic devices. Systems based on 802.16-2004 standard are considered for deployments in several countries. These deployments first start by serving medium and small businesses but will expand into the greater residential market<sup>3</sup>. Lack of access to an affordable wired broadband solution around the world provides the potential for 802.16 to serve in the “last mile.” Given the current and projected interest in 802.16-based broadband wireless access systems and their complementary nature to IMT-2000 systems, it is foreseeable that the interworking between the two systems will be achieved in the near future. Therefore, contribution of 802.16-based services to the overall demand for data services needs to be taken into account in the overall calculations for the spectrum requirements of future development of IMT-2000 systems, their enhancements, and systems beyond IMT-2000 because they may augment or diminish the spectrum requirements for IMT-2000 systems.

As requested in Q4, therefore, future status of the parameters in Q3 is being described below for 802.16 systems.

#### 1 – Service issues

A wireless Metropolitan Area Network (MAN) based on the 802.16 air interface standard is configured in much the same way as a traditional cellular network with strategically located base stations using a point-to-multipoint architecture to deliver services over a radius up to several kilometers depending on frequency, transmit power and receiver sensitivity. The base stations are typically backhauled to the core network by means of fiber or point-to-point microwave links to available fiber nodes or via leased lines from an incumbent wire-line operator. The range and NLOS capability are two important parameters in deployments in a variety of environments. The technology was envisioned from the beginning as a means to provide wireless “last mile” broadband access with performance and services comparable to or better than traditional DSL, Cable or T1/E1 leased line services. The 802.16-2004 standard supports fixed/nomadic applications, providing a variety of services to fixed outdoor as well as nomadic indoor users. Work is underway on a mobile extension (802.16e) supporting new capabilities needed for the mobile environment.

The services that will be delivered by fixed and nomadic 802.16 deployments include<sup>4</sup>:

*1. Residential and SOHO High Speed Internet Access:* Today this market segment is primarily dependent on the availability of DSL or cable. In some areas the available DSL or cable services may not meet customer expectations for performance or reliability and/or are too expensive. In many rural areas residential customers are limited to low speed dial-up services. In developing countries there are many regions with no available means for internet access. 802.16-based technology will help operators address this market segment.

<sup>2</sup> Doc. 9B/83 (Annex 6), “Preliminary Draft New Recommendation ITU-R F.[9B/BWA] “Radio interface standards for broadband wireless access (BWA) systems in the fixed service operating below 66 GHz”.

<sup>3</sup> ABI Research. © 2004. All Rights Reserved.

<sup>4</sup> Business case models for fixed broadband wireless access based on WiMAX technology and the 802.16 standard, WiMAX Forum, 2004

2. *Small and Medium Business:* This market segment is very often underserved in areas other than the highly competitive urban environments. The 802.16-based technology can potentially meet the requirements of small and medium size businesses in low density environments and can also provide an alternative in urban areas competing with DSL and leased line services.
3. *Wi-Fi Hot Spot Backhaul:* Wi-Fi hot spots are being installed worldwide at a rapid pace. One of the obstacles for continued hot spot growth, however, is the availability of high capacity, cost-effective backhaul solutions. This application can also be addressed with the 802.16-based technologies. Nomadicity would also allow 802.16 to fill in the coverage gaps between Wi-Fi hot spot coverage areas.
4. *Cellular Backhaul:* In the U.S. the majority of backhaul is done by leasing T1 services from incumbent wire-line operators. With 802.16, cellular operators will have the opportunity to lessen their independence on backhaul facilities leased from their competitors. Outside the US, the use of point-to-point microwave is more prevalent for mobile backhaul, but 802.16 can still play a role in enabling mobile operators to cost-effectively increase backhaul capacity using 802.16 as an overlay network. This overlay approach will enable mobile operators to add the capacity required to support the wide range of new mobile services they plan to offer without the risk of disrupting existing services. In many cases this application will be best addressed through the use of 802.16 based point-to-point links sharing the Point-to-Multipoint infrastructure.
5. *Public Safety Services and Private Networks:* Support for nomadic services and the ability to provide ubiquitous coverage in a metropolitan area provides a tool for law enforcement, fire protection and other public safety organizations enabling them to maintain critical communications under a variety of adverse conditions. Private networks for industrial complexes, universities and other campus type environments (e.g., large enterprise) also represent a potential application for 802.16 as do applications for vertical markets such as medicine, transportation, construction and real estate. Some examples of medical applications would include high resolution medical imaging for information sharing between hospitals and for remote diagnosis and physician collaboration.
6. *Nomadic broadband access services:* nomadic devices such as laptops enabled with 802.16 will enable users to connect to the Internet even when they are outside the range of a traditional Wireless LAN. This capability will open the door to many new services and usage models for users across many of the segments previously listed.

## 2 – Market issues

Demand for Internet services will continue to increase throughout the world at a fast pace. On the other hand, current and emerging applications such as the ones described above are leading to a growing demand for wireless broadband services and hence the number of 802.16 subscribers is expected to grow considerably by the year 2009 in all regions of the world<sup>5</sup>.

It is important to note that the following tables containing subscriber forecasts do not include highly-mobile applications. These tables reflect the incremental growth in 802.16 fixed and nomadic services traffic some of which would interwork with IMT-2000 systems and beyond

Table 1 shows the growth forecast for 802.16 subscribers by region. This table includes not only subscriber forecasts of systems based on the IEEE 802.16-2004 standard, but also subscriber forecasts for nomadic applications of systems based on the future 802.16 standard addressing new mobile capabilities.

Table 1: 802.16 Subscriber Growth by Region (in millions)<sup>6</sup>

	2005	2006	2007	2008	2009	CAGR <sup>7</sup> (05-09)
Asia Pacific	0.00879	0.11617	0.68555	2.19263	6.73813	426%
North America	0.00429	0.05547	0.34170	1.03860	2.84755	408%
Latin America	0.00199	0.01688	0.12112	0.35376	0.97843	371%
Europe	0.00437	0.06044	0.42981	1.37477	3.59235	435%
Rest of World	0.00150	0.01347	0.10902	0.35053	1.06323	416%
<b>Total</b>	<b>0.02093</b>	<b>0.26243</b>	<b>1.68719</b>	<b>5.31028</b>	<b>15.21969</b>	<b>419%</b>

This subscriber growth is not uniform among various environments or market segments. Residential/SOHO users are expected to grow at a much faster pace than other segments.

Tables 2 through 4 contain subscriber growth forecast information on various market segments for IEEE 802.16-2004.

Table 2: IEEE 802.16-2004 Residential/SOHO Subscriber Growth by Region (in millions)

	2005	2006	2007	2008	2009	CAGR (05-09)
Asia Pacific	0.00242	0.02080	0.23235	0.64774	1.71812	416%
North America	0.00140	0.01258	0.15546	0.46941	0.99099	415%
Latin America	0.00129	0.00645	0.06394	0.16439	0.37658	313%
Europe	0.00187	0.02268	0.24657	0.75308	1.55050	437%
Rest of World	0.00092	0.00302	0.04330	0.11175	0.27765	317%
<b>Total</b>	<b>0.00791</b>	<b>0.06552</b>	<b>0.74162</b>	<b>2.14637</b>	<b>4.91385</b>	<b>399%</b>

<sup>5</sup> ABI Research. © 2004 All Rights Reserved.

<sup>6</sup> The numbers reflected in Table 1 through Table 5 are based on aggressive forecasts. Moderate forecast data was not available for all tables.

<sup>7</sup> Compound Annual Growth Rate

Table 3: IEEE 802.16-2004 Small Medium Business (SMB) subscriber growth by region (in millions)

	2005	2006	2007	2008	2009	CAGR (05-09)
Asia Pacific	0.00587	0.04940	0.11235	0.22319	0.40459	188%
North America	0.00283	0.02127	0.04446	0.08259	0.15029	170%
Latin America	0.00064	0.00548	0.01654	0.03252	0.05414	203%
Europe	0.00239	0.01902	0.04147	0.07952	0.14353	178%
Rest of World	0.00048	0.00418	0.01287	0.02569	0.04437	210%
<b>Total</b>	<b>0.01222</b>	<b>0.09935</b>	<b>0.22769</b>	<b>0.44351</b>	<b>0.79692</b>	<b>184%</b>

Table 4: IEEE 802.16-2004 Enterprise Subscriber Growth by Region (in millions)

	2005	2006	2007	2008	2009	CAGR (05-09)
Asia Pacific	0.00050	0.00270	0.00659	0.01259	0.02147	157%
North America	0.00005	0.00022	0.00044	0.00074	0.00130	126%
Latin America	0.00005	0.00030	0.00079	0.00159	0.00288	176%
Europe	0.00011	0.00055	0.00128	0.00233	0.00391	145%
Rest of World	0.00009	0.00068	0.00197	0.00419	0.00817	205%
<b>Total</b>	<b>0.00080</b>	<b>0.00446</b>	<b>0.01107</b>	<b>0.02144</b>	<b>0.03773</b>	<b>162%</b>

Table 5 contains subscriber growth forecast information across various market segments for nomadic applications of systems based on the future 802.16 standard addressing new mobile capabilities, referred to as 802.16e.

Table 5: 802.16e Subscriber Growth by Region (in millions)

	2005	2006	2007	2008	2009	CAGR (06-09)
Asia Pacific	-	0.02	0.17	0.65	2.30	374%
North America	-	0.01	0.07	0.24	0.85	330%
Latin America	-	0.00	0.02	0.08	0.27	389%
Europe	-	0.01	0.07	0.27	0.95	371%
Rest of World	-	0.00	0.03	0.10	0.37	408%
<b>Total</b>	<b>-</b>	<b>0.05</b>	<b>0.35</b>	<b>1.35</b>	<b>4.74</b>	<b>367%</b>

In addition to the growth rate, subscriber penetration among various market segments is certainly not the same. Tables 6 contains subscriber penetration data for residential/SOHO, business subscribers using a fixed CPE station, as well as stand-alone laptops with their own embedded station<sup>8</sup>. The following data is based on observations in the United States.

Table 5: Subscriber Penetration for 802.16 Services

penetration	2006	2007	2008	2009
Residential/SOHO	3.94%	8.74%	14.13%	19.56%
SMB	0.75%	1.62%	2.56%	3.52%
Laptops	-	0.34%	0.78%	1.26%

### 3 – Preliminary traffic forecast

Tables 6 and 7 simply describe the capacity of an 802.16 base station for various channel bandwidths and coding/modulation schemes. By assuming a deployment scenario – e.g., available bandwidth and MHz per cell, distribution of various user types, and application breakdown -- it is then possible to calculate the total traffic volume of a base station.

<sup>8</sup> LCC International, Inc. © 2004 All Rights Reserved.

It should be noted that the numbers reported in Table 6 and Table 7 are raw, theoretical data rates, assuming a cyclic prefix ratio of 1/32. Reporting raw data rates has the advantage of not making any deployment-specific assumptions. Actual data rates, namely the throughput provided by the base station throughout the cell and experienced by users, are a function of several factors including user distribution and propagation conditions and pilot distribution, will need to be taken into account according to agreed methodologies.

Table 6: Transmitter Raw Bit Rate of 802.16 OFDM<sup>9</sup> (in Mbps)\*

Modulation / Code Rate	QPSK 1/2	QPSK 3/4	16 QAM 1/2	16 QAM 3/4	64 QAM 2/3	64 QAM -
1.75 MHz	1.45	2.18	2.91	4.36	5.94	6.55
3.5 MHz	2.91	4.37	5.82	8.73	11.88	13.09
7.0 MHz	5.82	8.73	11.64	17.45	23.75	26.18
10.0 MHz	8.38	12.57	16.76	25.13	33.51	37.70
20.0 MHz	16.76	25.14	33.52	50.26	67.02	75.40

\* Note: This is the PHY raw bit rate only. MAC and frame (preamble, pilots, MAP, etc.) overhead are not included in calculation.

Table 7: Transmitter Raw Bit Rate of 802.16 OFDMA (in Mbps)\*

Modulation / Code Rate MHz	QPSK 1/2	QPSK -	16QAM 1/2	16QAM 3/4	64QAM 1/2	64 QAM 2/3	64 QAM -
1.25 MHz	1.14	1.71	2.28	3.42	3.42	4.55	5.13
1.75 MHz	1.59	2.39	3.18	4.78	4.77	6.37	7.17
3.5 MHz	3.17	4.77	6.34	9.54	9.51	12.74	14.31
5.0 MHz	4.55	6.82	9.10	13.64	13.65	18.20	20.46
7.0 MHz	6.35	9.56	12.70	19.12	19.05	25.48	28.68
10.0 MHz	9.10	13.65	18.20	27.30	27.30	36.39	40.95
20.0 MHz	18.20	27.30	36.40	54.60	54.60	72.79	81.89

\* Note: This is the PHY raw bit rate only. MAC and frame (preamble, pilots, MAP etc.) overhead are not included in calculation. Mandatory subcarrier allocation modes are used for the numbers.

<sup>9</sup> FFT 256

**Motion: to approve L80216-04\_37r1.PDF with the intent to submit to ITU-R as an IEEE contribution, subject to editorial revision.**

**Moved: Marks/Hawkins**

The intent is to have this submitted through IEEE's sector membership.

A question was raised as to whether it is in scope of 802 to comment on market sizes and growth.

**Result: 14/0/1 Passes**

9.03			-			03:15 PM
9.04			-			03:15 PM
9.05			-			03:15 PM
9.06			-			03:15 PM
10.00		LMSC Internal Business	-			03:15 PM
10.01	MI*	Continuation of 802.3 Residential Ethernet SG	-	Grow	0	03:15 PM
10.02	MI*	Continuation of 802.3 Congestion Management SG	-	Grow	0	03:15 PM
10.03	MI*	Continuation of 802.3 Frame Expansion SG	-	Grow	0	03:15 PM
10.04	MI	Authorization of 802.3 Power Over Ethernet Plus SG	-	Grow	2	03:30 PM



# POE Plus SG

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Authorize IEEE 802.3 Study Group  
on Power Over Ethernet Plus (PoE  
Plus)

M: Bob Grow

S: Tony Jeffree

Y: 14 N: 0 A: 0

**Motion: to authorize IEEE 802.3 study group on Power Over Ethernet Plus.**

**Moved: Grow/Jeffree**

**Result: 14/0/0**

10.05 MI Authorization of 802.3 to Operate with Treasury

- Grow

3

03:32 PM

# 802.3 MOTION #3 (Treasury)

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To enable timely preparation for the May 2005 IEEE 802.3 interim session the IEEE 802.3 Working Group suspends IEEE 802.3 Operating rule 2.5 (Treasurer) and authorise the IEEE 802.3WG Chair to open a treasury with permission of the SEC for the purpose of funding IEEE 802.3 Interim Sessions.

M: D. Law

S:B. Booth

Tech 75%

Y:56      N:0      A:7

**MOTION PASSES 18-Nov-2004**

## 802.3 Operation with Treasury

---

The EC authorizes IEEE 802.3 to operate with treasury per LMSC P&P.

M: Bob Grow

S: John Hawkins

Y: 15 N: 0 A: 0

**Motion: To authorize IEEE 802.3 to operate with treasury per LMSC P&P**  
**Moved: Grow/Hawkins**

Bob Grow will act as treasurer for the time being, until the position can be created and filled in the working group.

**Result: 15/0/0**

10.06 MI P&P Change for Coexistence

- Shellhammer 10 03:46 PM

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**IEEE P802.19  
Wireless Coexistence**

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Project IEEE P802.19 Coexistence TAG

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Title **Revised Text for Coexistence P&P Changes**

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Date Submitted [September 14, 2004]

---

Source	[Stephen J. Shellhammer]	Voice:	[(858) 391-4570]
	[Intel Corporation]	Fax:	[(858) 391-1795]
	[13290 Evening Creek Drive]	E-mail:	[shellhammer@ieee.org]
	[San Diego, CA 92128]		

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Re: []

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Abstract [This document contains the text for Coexistence P&P as modified by comment resolution by 802.19 TAG for the executive committee letter ballot.]

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Purpose []

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Notice This document has been prepared to assist the IEEE P802.19. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

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Release The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.19.

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# 1 Text of Executive Committee Letter Ballot

## IEEE 802 LMSC Policy and Procedure Revision Ballot On Coexistence Assurance

**Purpose:** Assure coexistence of new wireless standards with current standards

### Rationale for proposed text:

The introduction of a new or amended wireless standard creates the possibility of interference between the new standard and present standards. The purpose of these proposed changes to the LMSC policies and procedures is to establish a process in IEEE 802 to assure that the proposed standard and existing standards will coexist.

A Coexistence Assurance (CA) document is used as a tool to assess coexistence with other users of the medium. The 802.19 TAG shall advise working groups in the creation of the CA document at the request of the working group.

Coexistence is in the domain of MAC/PHY interactions between dissimilar systems. The criteria for a system resiliency to interference is ultimately dependent on the expected application of the proposed standard or amendment.

### Proposed Text:

Proposed addition to PAR process (procedure 2):

6.4 Technical Feasibility addition

- d) *Coexistence of 802 wireless standards specifying devices for unlicensed operation.*  
The working group proposing a wireless project is required to demonstrate Coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable.

- Working Group will create a CA document as part of the balloting process.
- Working Group will not create a CA document  
Reason it is not applicable: \_\_\_\_\_

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Proposed addition to LMSC standard procedures:

### Procedure 11

#### PROCEDURE FOR COEXISTENCE ASSURANCE

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If indicated in the five criteria, the wireless working group shall produce a coexistence assurance (CA) document in the process of preparing for working group letter ballot and sponsor ballot. The CA document shall accompany the draft on all wireless working group letter ballots.

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The CA document shall address coexistence with all relevant approved 802 wireless standards specifying devices for unlicensed operation. The working group should consider other specifications in their identified target band(s) in the CA document.

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The 802.19 TAG shall have one vote in working group letter ballots that include CA documents. As part of their ballot comments, the 802.19 TAG will verify the CA methodology was applied appropriately and reported correctly.

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The ballot group makes the determination on whether the coexistence necessary for the standard or amendment has been met if the ballot passes.

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Inserted: or sponsor)

A representative of the 802.19 TAG should vote in all wireless sponsor ballots that are in the scope of the 802.19 coexistence TAG.

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**Motion: to amend the 802 P&P by applying document 19-04/0032r3 to the 802 P&P.**

**Moved: Shellhammer/Sherman**

**Result: 8/2/5 Passes**

10.07 MI Confirmation of Officers of 802.22 - Stevenson 10 03:49 PM

**Motion: to confirm the elected slate of officers of 802.22:**

**Chair: Carl Stevenson, WK3C Wireless LLC**

**Vice Chair: Gerald Chouinard, CRC**

**Moved: Stevenson/Rigsbee**

The required support letter for the chair from his employer was provided.

**Result: 15/0/0 Passes**

10.08 MI Confirmation of appointment of interim chair of 802.18 - Nikolich 10 03:55 PM

**Motion: to confirm the appointment of Mike Lynch as the interim chair of 802.18.**

**Moved: Stevenson/Hawkins**

**Result: 14/0/0 Passes**

10.09	MI*	Continuation of 802.15 mmWave SG	-	Heile	0	03:50 PM
10.10	MI*	Continuation of 802.15.1b enhanced data rate SG	-	Heile	0	03:50 PM
10.11	ME	802.11j Press Release	-	Kerry	5	03:50 PM

Agenda#:

Date:

Time:

# IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: HEILE

**Request the IEEE 802 Executive Committee approve IEEE 802.11j Press Release for media publication by IEEE.**

802.11 WG: Moved by *Al Petrick, 2<sup>nd</sup> Nanci Vogtli*

802.11 WG Results

- Result: (*Unanimous*) Approved
- Note: press release was posted in Excom inbox folders on Wednesday 11/18/04

Approve:

Do Not Approve:

Abstain:

**Motion: to approve the press release on 802.11j.**

**Moved: Kerry/Heile**

**Result: 14/0/0 Passes**

10.12	MI*	Continuation of 802.11 WEIN SG	-	Kerry	0	03:55 PM
10.13	MI*	Continuation of 802.11 WNG SG	-	Kerry	0	03:55 PM
10.14	MI*	Continuation of 802.11 ADS SG	-	Kerry	0	03:55 PM
10.15	MI	Member Emeritus	-	Nikolich	10	03:55 PM

# Motion

- Motion:  
Approve the creation of an “Executive Committee Member Emeritus” position with the following conditions:
  - based on long years of prior distinguished service on EC
  - non voting member of EC (cannot make or second motions)
  - a person must be nominated by an EC member and elected by the EC to fill the position
  - limited to a single position
  - position expires at the March 2006 plenary session
  - (these conditions are similar to those used in the Standards Board Bylaws--see following slide)

# SASB Bylaw

- 4.1 Membership

As stated in the IEEE Standards Association Operations Manual, the IEEE-SA Standards Board shall consist of no fewer than 18 nor more than 26 voting members, who shall be of Member or higher grade of the IEEE and members of the IEEE Standards Association, including a chair, vice chair, and the most recent past chair available to serve. Voting members of the IEEE-SA Standards Board shall be appointed by the IEEE-SA BOG. In addition, a representative appointed by the IEEE Technical Activities Board (TAB) shall be a voting member. **In addition, the IEEE-SA Standards Board may include nonvoting participants as described below:**

--

Liaison representatives to provide coordination and communication between the IEEE-SA Standards Board and other IEEE entities, as well as other organizations involved in standards activities.

--

**Members emeriti elected for life by the IEEE-SA Standards Board and ratified by the IEEE-SA BOG, based on long years of prior distinguished service on the IEEE Standards Board and its committees.** Only those members emeriti currently named to this position as of 31 December 1997 shall serve on the IEEE-SA Standards Board.

# Initial Responsibilities

- JTC1
  - Provide advisory support to WGs on JTC1 matters
- SA
  - Support 802 initiatives within the SA
    - Copyright transfer, front matter, 802 Task Force, others...
- 802
  - Act as mentor to WG/TAG members and leaders, especially for new Working Groups
- 802 EC Chair
  - Be a friendly nettle

**Motion: To approve the creation of a EC member emeritus position with the following conditions:**

- based on long years of prior distinguished service on EC
- non voting participant of EC (cannot make or second motions)
- a person must be nominated and elected by the EC to fill the position
- limited to a single position
- position expires at the March 2006 plenary session

**Moved: Grow/Sherman**

Stuart reported that the 802.11 working group voted at 71% to direct him to vote against the establishment of this position. He indicated that even though this does not meet the requirement of a working group directed position, he would abide by this direction.

A point of order was raised, asking the motion to be ruled out of order because the motion would create a new EC position and as such would require to be created by a change to the 802 LMSC Policies and Procedures. The chair ruled that the motion is in order.

A question was asked if a P&P change would be undertaken to create this position. The chair indicated that he would not make a P&P change.

**Result: 7/4/3 Passes**

Mat Sherman nominates Geoff Thompson for the position of EC member Emeritus. Stuart Kerry recused himself at this point and left the room.

**Motion: to confirm Geoff Thompson to occupy the position of EC Member Emeritus.**

**Result: 12/0/0 Passes**

10.16 MI Equipment purchase approval - Rigsbee 10 04:15 PM

**Motion: Whereas we have 4 projectors which are >7 years old and 9 that can only support SVGA (800x600) resolution, and whereas these units are becoming regular maintenance problems, therefore moved that the EC approve \$18k for replacement of 9 projectors before the March 2005 plenary, leaving only 6 more for next time.**

**Moved: Rigsbee/Stevenson**

**Result: 13/0/0**

10.17 II Meeting site selection - Rigsbee 15 04:20 PM

# 10.16 - Equipment Purchase:

- Motion: Whereas we have 4 projectors which are >7 years old and 9 that can only support SVGA (800x600) resolution,
- And whereas these units are becoming regular maintenance problems,
- Therefore moved that SEC approve \$18K for replace of 9 projectors before March plenary, leaving only 6 more for next time.

Vote: Y 13 N 0 A 0



# 10.17 - Future Session Sites

- 3 short-fuse offers that are almost too good to pass up.
- Use 'em, or lose 'em.
- No reasonable alternatives at this time.

# March 2007 - Orlando, FL

- Caribe Royale Hotel & Conf. Center
  - Rate: \$159 S/D with full guest roomblock
  - Great Meeting Space with full WLAN network
  - More than enough meeting rooms for full 802
  - Plenty of nearby restaurants & shops
  - Near to Disney WDW with free shuttle service but not in the resort traffic pattern.
  - Good onsite facilities.

Poll: Y \_\_\_11\_\_\_ N \_\_\_0\_\_\_ A \_\_\_\_\_

# March 2008 - New Orleans, LA

- Hyatt Regency New Orleans
  - Rate: \$149 S/D with full guest roomblock
  - Great Meeting Space with full WLAN network
  - More than enough meeting rooms for full 802
  - Downtown with nearby restaurants & shops
  - Near to French Quarter with free shuttle service but not in the worst traffic patterns.
  - Great onsite facilities.

Poll: Y \_\_\_4\_\_\_ N \_\_\_6\_\_\_ A \_\_\_\_\_

# July 2008 - Denver, CO

- Hyatt Regency Hotel & Conf. Center
  - Rate: \$179 S/D with full guest roomblock
  - Great Meeting Space with full WLAN network
  - More than enough meeting rooms for full 802
  - Downtown with nearby restaurants & shops
  - Near to most downtown attractions with free shuttle service and walking mall for nightlife.
  - Opens 2005 with great onsite facilities.

Poll: Y \_\_\_7\_\_\_ N \_\_\_3\_\_\_ A \_\_\_\_\_

# Future sites for consideration

- Do we want to consider a plenary return to Hyatt Regency San Antonio ?
- Would some prefer it as an interim site ?
- Any other suggestions for futures ?

**Poll: To pursue use of the Caribe Royale Hotel & Conference Center for March 2007**  
**11/0**

**Poll: Hyatt Regency New Orleans for March 2008**  
**4/6**

**Poll: Hyatt Regency Hotel & Conference Center, Denver for July 2008**  
**7/3**

**Do we want to return to Hyatt Regency San Antonio?**  
**Interim site?**  
**Other suggestions?**  
**Salt Lake City**

10.18 MI Adopt "SA & CS Conformance" P&P change

- Sherman

5

04:36 PM

**IEEE PROJECT 802**  
**LAN MAN STANDARDS COMMITTEE (LMSC)**  
**POLICIES AND PROCEDURES**

Revised effective July 16, 2004

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# 1. Introduction

The IEEE Project 802 (IEEE P802) LAN MAN Standards Committee (LMSC) is the standards sponsor organization and focal point for IEEE Local and Metropolitan Area Network Standards Sponsor activities.

The operation of the LMSC is subject to regulations contained in a number of documents, including these Policies and Procedures [\(P&P\)](#). ↓

The regulating documents are identified in the following list and are given in their order of precedence from highest to lowest. If any two documents in this list contain conflicting regulations, the conflict shall be resolved in favor of the document of higher precedence.

## [New York State Not-for-Profit Corporation Law](#)

[IEEE Certificate of Incorporation](#)

[IEEE Constitution](#)

[IEEE Bylaws](#)

[IEEE Policies](#)

[IEEE Financial Operations Manual](#)

[IEEE Board of Directors Resolutions](#)

[IEEE Standards Association Operations Manual](#)

[IEEE-SA Board of Governors Resolutions](#)

[IEEE-SA Standards Board Bylaws](#)

[IEEE-SA Standards Board Operations Manual](#)

[IEEE CS Constitution](#)

[IEEE CS Bylaws](#)

[IEEE CS Policies and Procedures, Section 11](#)

[IEEE CS Board of Governors Resolutions](#)

[IEEE CS SAB Policies and Procedures](#)

[LMSC Policies and Procedures](#)

[Working Group / Technical Advisory Group Policies and Procedures](#)

*Robert's Rules of Order Newly Revised (Latest Edition)*

The order of precedence presented here has been derived from the [model P&P](#) developed by the IEEE-SA, augmented by documents identified within the IEEE CS SAB P&P. While both the IEEE-SA and IEEE CS (via the IEEE TAB) report to the IEEE Board of Directors independently, for purposes of standards development the IEEE CS (via the IEEE CS SAB) acts as a sponsor within the IEEE-SA, and its documents have been placed accordingly in the order of precedence.

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**Comment:** I have requested this change in the model P&P. The point here is that we are open in that anyone is eligible. But to have the rights given below, it is still necessary to follow the rules. The rules are not believe to be a barrier that would restrict participation of any particular interest group.

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**Inserted:** These Operating Procedures

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a) expressing a position and its basis, ¶  
b) having that position considered, and ¶  
c) appealing if adversely affected. ¶  
Due process allows for equity and fair play. In addition to openness, due process requires balance, i.e., the standards development process should have a balance of interests and shall not be dominated by any single interest category.

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## 2. LMSC Scope

The scope of the IEEE Project 802 (IEEE P802) LAN MAN Standards Committee (LMSC) is to develop and maintain networking standards and recommended practices for local, metropolitan, and other area networks, using an open and accredited process, and to enable and advocate them on a global basis.

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Comment: Our scope actually extends to other "area networks" now so we should broaden our scope accordingly

## 3. LMSC Organization

IEEE Project 802 (P802) is a Standards Committee that reports to the Standards Activity Board (SAB) of the IEEE Computer Society.

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The LMSC is a standards sponsoring organization and includes the Executive Committee (EC), LMSC Sponsor balloting groups, and a set of Standards Development Groups. The LMSC Executive Committee (EC) oversees the operations of and directs the committee (see Figure 1 IEEE PROJECT 802 REPORTING RELATIONSHIP). The IEEE P802 LMSC Executive Committee serves as the Executive Committee for both the sponsor ballot groups as well as the Standards Development Groups. The terms "local area network" (LAN) and "metropolitan area network" (MAN) encompass a number of data communications technologies and the applications of these technologies. In addition other types of area networks have been defined such as Personal Area Network (PAN) and "Regional Area Network" (RAN). There is no single technology that is applicable to all applications. Correspondingly, no single network standard is adequate for all applications. In recognition of these facts, the standards developing organization has been divided into Working Groups and Technical Advisory Groups to standardize a small number of the technologies applicable to the appropriate area networks (see Figure 2 STANDARDS DEVELOPMENT GROUPS). The division of the Standards Development Groups into Working Groups, Study Groups, and Technical Advisory Groups is necessitated by the need to:

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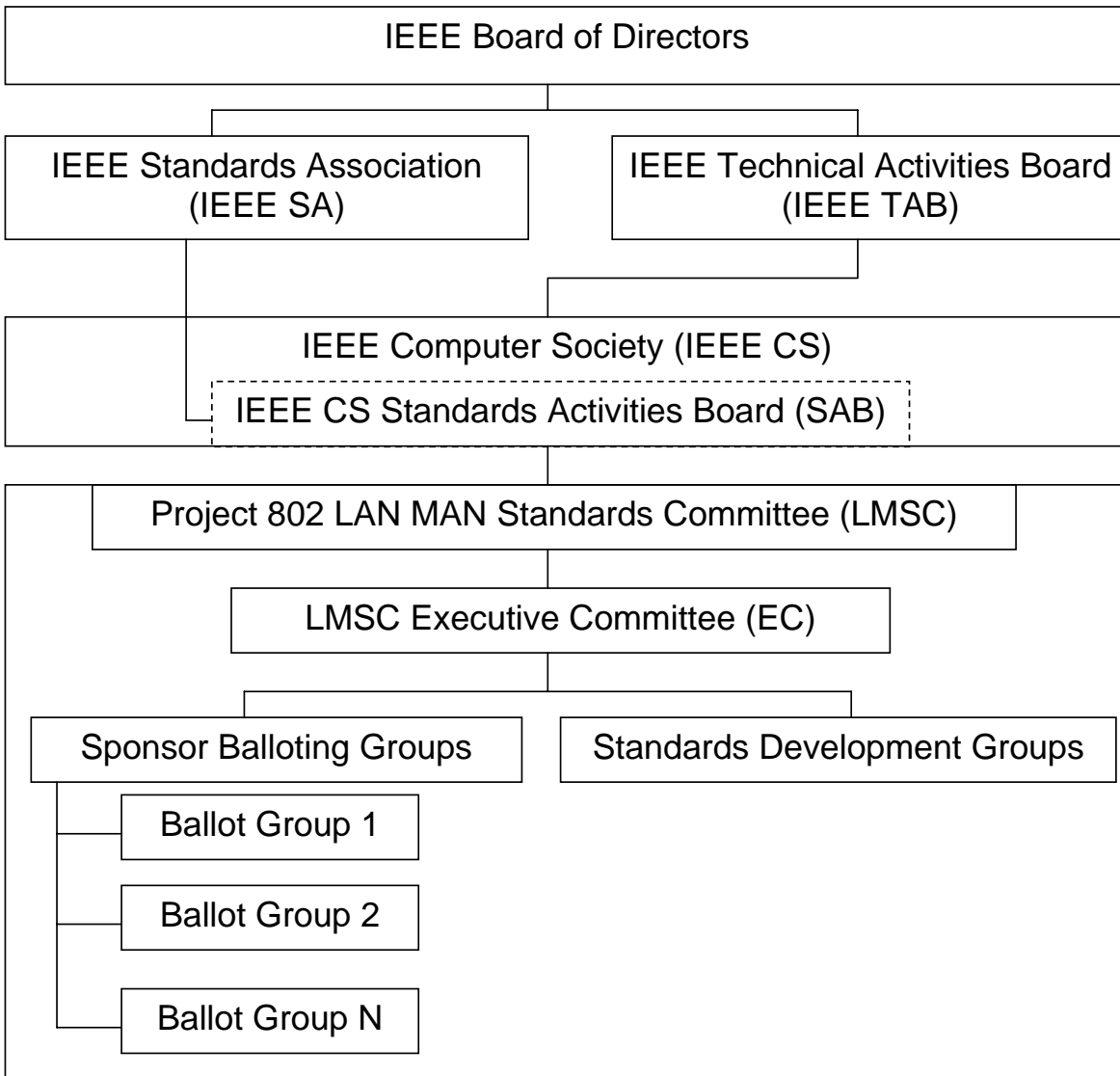
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- a) Produce standards in a reasonable time, with each group working at its own pace and reflecting the maturity of the particular technology.
- b) Have each group maintain and revise its own standard, as appropriate.

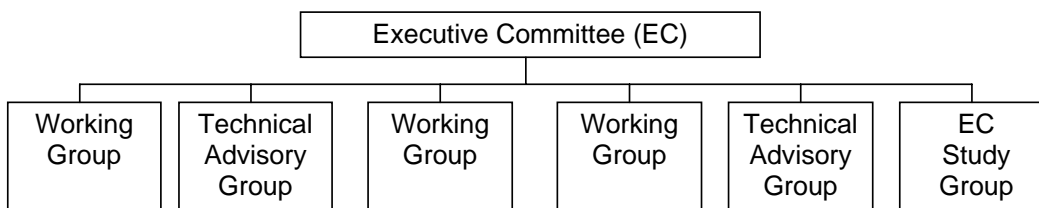
On the other hand, overall coordination of the Working Groups and Technical Advisory Groups is necessary to:

- a) Keep the individual standards within the scope of IEEE Project 802's charter.
- b) Prevent overlap or conflict between the individual standards.
- c) Promote common technologies between the individual standards in the interest of compatibility.

The IEEE P802 LMSC Executive Committee provides this coordination as a portion of its function.



**Figure 1 IEEE PROJECT 802 REPORTING RELATIONSHIP**



**Figure 2 STANDARDS DEVELOPMENT GROUPS**

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Further details of the organization and officers of the LMSC are provided in section 5 and 7 of this document.

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#### 4. Responsibilities of the Sponsor

The LMSC shall be responsible for the following:

1. Developing LMSC proposed IEEE standards within its scope
2. Voting on approval of LMSC proposed IEEE standards
3. Maintaining the standards developed by the LMSC in accordance with documents of higher precedence
4. Responding to requests for interpretations of the standards developed by the LMSC
5. Acting on other matters requiring LMSC effort as provided in these procedures
6. Cooperating with other appropriate standards development organizations
7. Protecting against actions taken in the name of the LMSC without committee authorization

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#### 5. Officers

The Chair, Vice Chairs, Executive Secretary, Recording Secretary and Treasurer of the LMSC Executive Committee serve respectively as the Chair, Vice Chairs, Executive Secretary, Recording Secretary and Treasurer of the LMSC. Further details on the duties of these offices are provided [in clause 7.1](#) this document.

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#### 6. Membership

Membership in LMSC is established by establishing membership in one of its defined subgroups (See clause 7 Subgroups Created by the Sponsor).

##### 6.1 Voting Membership

Voting Membership is as defined for each of the subgroups of the LMSC (See clause 7 Subgroups Created by the Sponsor), and as further defined within established P&P of LMSC subgroups.

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## 6.2 Application

Parties interested in participating within LMSC should establish membership in accordance with the procedures established in this P&P, and any subordinate P&P for the LMSC subgroup of interest. In some cases, membership may be established by application to the chair of a subgroup, in accordance with this P&P, and the P&P of the subgroup of interest.

## 6.3 Review of Membership

The proper authority for each subgroup shall regularly review membership in the subgroup to ensure that the membership rules in this P&P and subordinate P&P are enforced.

## 6.4 Interest Categories

Interest Categories for Sponsor Ballots are as defined by the IEEE SA, as well as any additional categories defined by the balloting groups.

## 6.5 Membership Roster

Membership rosters shall be maintained by each WG and TAG in accordance with the P&P of that WG or TAG.

## 7. Subgroups Created by the Sponsor

The LMSC organization consists of the Executive Committee and the Working Groups and Technical Advisory Groups that develop the draft standards, recommended practices and guidelines, and Study Groups.

### 7.1 LMSC Executive Committee

The LMSC Executive Committee functions as the Sponsor Executive Committee (SEC) and the Executive Committee of the standards developing organization. It shall be referred throughout this document as the Executive Committee (EC).

#### 7.1.1 Function

The function of the Executive Committee is to oversee the operation of the LAN MAN Standards Committee in the following ways:

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- a) Charter the Study Groups, Working Groups and Technical Advisory Groups.
- b) Appoint the initial Chairs of the Working Groups and Technical Advisory Groups. (The Chairs of Working Groups and Technical Advisory Groups are confirmed or elected by the Working Group and Technical Advisory Group members themselves.)
- c) Provide procedural and, if necessary, technical guidance to the Working Groups and Technical Advisory Groups as it relates to their charters.
- d) Oversee Working Group and Technical Advisory Group operation to see that it is within the scope of Project 802, and the charter of the Working Groups and Technical Advisory Groups.
- e) Examine and approve Working Group draft standards for proper submission to sponsor ballot group (see subclause 9.1); not for technical content.
- f) Consider complaints of Working Group and Technical Advisory Group members and the resolutions of the Plenary, Working Groups and Technical Advisory Groups.
- g) Manage the Functional Requirements and other global Project 802 issues.
- h) Handle press releases and other external organization matters.
- i) Manage Project 802 logistics, i.e., concurrent Working Group and Technical Advisory Group meetings, finances, etc.
- j) Oversee formation of sponsor ballot groups and sponsor ballot process.

### 7.1.2 Membership

Executive Committee membership, including all rights and responsibilities thereof, is acquired by Working Group/Technical Advisory Group Chairs upon appointment to the position of Chair of a Working Group/Technical Advisory Group and confirmed by the members of the Working Group/Technical Advisory Group, and by all other Executive Committee members when confirmed by the Executive Committee. Membership is retained as in Working Groups (see **Retention**). All voting members of the Executive Committee shall be members or affiliates of the IEEE or the IEEE Computer Society. In addition the LMSC Chair shall be a member of the IEEE SA. Membership of the Executive Committee is composed of the following:

- a) LAN MAN Standards Committee Chair.  
The Chair is elected by the Executive Committee and confirmed by the Standards Activities Board. The LMSC Chair is also the Chair of the Executive Committee.
- b) The Vice Chair(s), the Executive Secretary, the Recording Secretary, and the LMSC Treasurer.  
These positions are appointed by the LMSC Chair and confirmed by the Executive Committee.
- c) The LMSC Chair may appoint a 2<sup>nd</sup> Vice Chair. A Vice Chair will be responsible for such duties as may be assigned by the LMSC Chair. In the case of unavailability or incapacity of the Chair, the 1<sup>st</sup> Vice Chair shall act in the capacity of the Chair.
- d) Chairs of the Working Groups.
- e) Chairs of the Technical Advisory Groups (TAG).

The 802 Chair will ensure that those EC members who are not Chairs of active Working Groups have specific areas of interest to cover in order to encourage a wider view to be taken than that specifically covered by the Chairs of active Working Groups.

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Each member of the Executive Committee shall, prior to confirmation by the executive committee, file with the Recording Secretary a letter of endorsement from their sponsoring organization. This letter is to document several key factors relative to their participation on the Executive Committee and is to be signed by both the executive committee member and an individual who has management responsibility for the Executive Committee member. This letter shall contain at least the following:

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1. statement of qualification based on technical expertise to fulfill the assignment, and
2. statement of support for providing necessary resources (e.g., time, travel expenses to meetings), and
3. recognition that the individual is expected to act in accordance with the conditions stated in subclause 7.1.4.1 Voting Guidance dealing with voting “as both a professional and as an individual expert.”

### 7.1.3 Reaffirmation

All members of the Executive Committee are reaffirmed at the first Plenary session of each even numbered year. The Working Group and TAG chairs are reaffirmed by their representative groups while other members of the Executive Committee are reaffirmed in the Executive Committee meeting.

### 7.1.4 Voting Rules

Voting in the Executive Committee is by simple majority. The Chair only votes to break ties. A quorum is at least one-half of the Executive Committee voting members.

#### 7.1.4.1 Voting Guidance

It is expected that LMSC Executive Committee members will vote as both professionals and as individual experts, except under the Directed Position provisions of this P&P, and not as a member of any affiliate block (organization, alliance, company, consortium, special interest group, etc.). If substantive evidence is presented to the LMSC Chair that this provision is violated, the LMSC Executive Committee will meet to consider what, if any, action to take on the presented evidence. Such action may include any action up to and including a recommendation for removal from office.

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#### 7.1.4.2 Voting Between Plenary Meetings

At times, it may become necessary for the Executive Committee to render a decision that cannot be made prior to the close of one plenary but must be made prior to the following plenary. Such decisions shall be made using electronic balloting. Provision shall be made for the LMSC membership to observe and comment on Executive Committee electronic ballots. All comments from those who are not members of the Executive Committee shall be considered. Commenters who are not members of the Executive Committee are urged to seek an Executive Committee voting member (normally their Working Group or Technical Advisory Group Chair) to include the viewpoint of the commenter in their vote.

#### 7.1.4.2.1 Electronic Balloting

The Chair, or an Executive Committee member designated by the Chair (usually a Vice Chair), shall determine the duration of the ballot, issue the ballot by e-mail and tally the votes after the ballot is closed. Executive Committee voting members shall return their vote and comments by e-mail.

The minimum duration of an electronic ballot shall be 10 days unless the matter is urgent and requires resolution in less time. Maximum advance notice is encouraged for all ballots on urgent matters. The tally of votes shall not be made until at least 24 hours after the close of the ballot to allow time for delivery of the e-mail votes.

The affirmative vote of a majority of all members of the Executive Committee with voting rights is required for an electronic ballot to pass except when specified otherwise by these P&P.

### 7.1.5 Meetings

Executive Committee meetings are open to observers. An open discussion or requests to participate in a particular discussion is determined by the Chair.

#### 7.1.5.1 PROCEDURE FOR LIMITING THE LENGTH OF THE IEEE LMSC EXECUTIVE COMMITTEE MEETINGS (Formerly "Procedure 5")

1. The reports from the Working Groups and TAGs should deal primarily with issues related to LMSC as a whole or inter-group coordination. Reports of those items that will be covered in the Plenary meeting should be minimized.
2. Roberts Rules of Order shall be used in Executive Committee meetings. Issues brought before the Executive Committee for resolution by vote should be phrased as a motion and distributed, if possible, to the Executive Committee members before the meeting.
3. The maker of the motion has up to five minutes of uninterrupted time to explain the motion and to answer questions about it. After this, the seconder of the motion will be sought.
4. Each Executive Committee member has two minutes of uninterrupted time to state an opinion about the motion. It is not necessary that all two minutes be used.
5. The following debate will be confined only to the motion.

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6. Motions needing concurrence of the Working Group(s) will be tabled for review at the next Executive Committee meeting.
7. The opening Executive Committee meeting shall start at 8AM and end no later than 10:30AM on Monday morning and the closing Executive Committee meeting shall start at 1PM and shall end no later than 6 PM on Friday of the Plenary session.
8. If the Executive Committee so modifies a Working Group's motion that the Working Group Chair believes the Working Group membership may no longer support the revised motion then the Working Group should be given the opportunity to reconsider what action it wishes to take and present it to the Executive Committee at the next Executive Committee meeting. This action can be accomplished by a Privileged Non-debatable "Request To Defer Action" made by the affected Working Group Chair which will automatically cause all action on the motion to be deferred until the end of the next regular Executive Committee meeting.

**7.1.6 Revision of the Policies and Procedures**

These LMSC Policies and Procedures may be changed as described in this section.

**7.1.6.1 Initiation of Proposed LMSC Policies and Procedures Changes**

1. Proposed changes shall be in written form and include:
  - a) The purpose, objective, or problem the proposed change is intended to address.
  - b) The specific text of the proposed change and the rationale for the chosen text.
2. Proposed changes may be created by:
  - a) Any working group or technical advisory group. A proposal shall require the affirmative vote of at least three fourths of the members present when the vote is taken, quorum requirements shall be as specified in subclause 7.2.4.2 Voting
  - b) Any Executive Committee Member

Writers of proposed changes are encouraged to seek the advice of experienced members of the EC to help form the wording in a manner appropriate for and consistent with the LMSC Policies and Procedures.

**7.1.6.2 Executive Committee Action on Proposed Changes to LMSC Policies and Procedures**

The proposed change shall be presented at an Executive Committee meeting in conjunction with a Plenary Session. The Executive Committee shall take one of three actions on the proposal: Approve for Distribution and Executive Committee Ballot, or Assign for Study, or Reject.

Approval for Distribution and Executive Committee Ballot shall require the affirmative vote of at least two thirds of Committee members with voting rights and will result in the distribution of the proposal and an Executive Committee electronic ballot on the change.

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If Approval for Distribution and Executive Committee Ballot is not achieved, a vote to Assign the proposal for study is taken, (see "Assignment of the Proposal to Study"). Assignment for Study shall require the affirmative vote of at least one third of all Executive Committee members with voting rights. If Assignment is not achieved, no further action is taken on the proposal and it is Rejected.

### 7.1.6.3 *Distribution and Executive Committee Ballot*

Executive Committee ballots on Policies and Procedures changes shall be at least 30 days in duration and shall close at least 30 days before the opening of the next Plenary session (to allow time for comment resolution). Distribution of ballots on Policies and Procedures changes to the LMSC membership shall be accomplished as provided by subclause 7.1.4.2.

### 7.1.6.4 *Assignment of the Proposal to Study:*

If the Executive Committee votes to assign a proposal to further study, the Executive Committee Vice Chair or others designated by the LMSC Chair, shall complete appropriate additional study of the proposal and respond to the Executive Committee expeditiously for its reconsideration for Distribution and Executive Committee Ballot.

### 7.1.6.5 *LMSC Approval*

After distribution of a proposed Policies and Procedures change and an Executive Committee electronic ballot has been conducted, the Executive Committee member designated in accordance with subclause 7.1.4.2.1 shall tabulate the ballot results, attempt to resolve the comments, and present the comments and proposed resolution at an Executive Committee meeting in conjunction with a Plenary Session. The Executive Committee shall approve, assign, or fail to accept the proposal.

LMSC approval of the revised text of the proposed Policies and Procedures change shall require the affirmative vote of at least two thirds of all voting Executive Committee members with voting rights. LMSC approval will result in the change becoming effective at the end of Plenary Session during which approval is voted. The revised LMSC Policies and Procedures shall be forwarded to the Computer Society Standards Activities Board (CS SAB). If the revised Policies and Procedures are known to be in conflict with the CS SAB Policies and Procedures the cover letter shall request formal CS SAB approval of the variance. In the case where the change is in conflict with the Policies and Procedures of CS SAB, the change will be put into effect as stated above but will be withdrawn immediately if rejected by the CS SAB. CS SAB rejection shall be announced to the LMSC Executive Committee by the most expeditious means available (e-mail, FAX, regular mail) and to the LMSC membership at the next Plenary Session.

If LMSC approval is not achieved, a vote to assign the proposal for further study and recommendation shall be taken. Assignment shall require the affirmative vote of at least one

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third of all Executive Committee members with voting rights; otherwise no further action is taken on the proposal.

### 7.1.7 Appeal and complaint process

Every attempt should be made to resolve concerns informally, since it is recognized that a formal appeals process has a tendency to negatively, and sometimes permanently, affect the goodwill and cooperative relationships between and among persons. If the informal attempts to resolve a concern are unsuccessful and a formal complaint is filed, the following formal procedure shall be invoked.

Appeals and complaints concerning Executive Committee decisions shall be referred to the Computer Society SAB.

#### 7.1.7.1 Appeals pool

The appeals pool consists of:

- a. Current members in good standing of the EC who have attended both the opening and closing EC meetings at two of the last four plenary sessions.
- b. Former members of the EC who are members in good standing of an active WG/TAG having qualified for member status through attendance.
- c. Current WG/TAG Vice Chairs confirmed by the EC who are members in good standing of an active WG/TAG having qualified for member status through attendance.

#### 7.1.7.2 Appeal brief

The appellant shall file a written appeal brief with the EC Recording Secretary within 30 days after the date of notification / occurrence of an action or at any time with respect to inaction. The appeal brief shall state the nature of the objection(s) including any resulting adverse effects, the clause(s) of the procedures or the standard(s) that are at issue, actions or inaction that are at issue, and the specific remedial action(s) that would satisfy the appellant's concerns. Previous efforts to resolve the objection(s) and the outcome of each shall be noted. The appellant shall include complete documentation of all claims in the appeal brief. Within 20 days of receipt of the appeal brief, the EC Recording Secretary shall send the appellant a written acknowledgment of receipt of the appeal brief, shall send the appellee (the Chair of the WG at issue or the LMSC Chair) a copy of the appeal brief and acknowledgment, and shall send the parties a written notice of the time and location of the hearing ("hearing notice") with the appeals panel. The hearing with the appeals panel shall be scheduled at the location set for, and during the period of, the first LMSC plenary session (nominally Wednesday evenings) that is at least 60 days after mailing of the hearing notice by the EC Recording Secretary.

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### 7.1.7.3 Reply brief

Within 45 days after receipt of the hearing notice, the appellee should send the appellant and EC Recording Secretary a written reply brief, specifically addressing each allegation of fact in the appeal brief to the extent of the appellee's knowledge. The appellee shall include complete documentation supporting all statements contained in the reply brief.

### 7.1.7.4 Appeals Panel

The IEEE 802 EC Chair shall appoint from the appeals pool an appeals panel consisting of a chair and two other members of the panel who have not been directly involved in the matter in dispute, and who will not be materially or directly affected by any decision made or to be made in the process of resolving the dispute. At least two members shall be acceptable to the appellant and at least two shall be acceptable to the appellee. If the parties to the appeal cannot agree on an appeals panel within a reasonable amount of time, the whole matter shall be referred to the full EC for Consideration.

### 7.1.7.5 Conduct of the Hearing

The hearing shall be open except under the most exceptional circumstances and at the discretion of the EC chair. The appellant has the burden of demonstrating adverse effects, improper actions or inaction, and the efficacy of the requested remedial action. The appellee has the burden of demonstrating that the committee took all actions relative to the appeal in compliance with its procedures and that the requested remedial action would be ineffective or detrimental. Each party may adduce other pertinent arguments, and members of the appeals panel may address questions to individuals before the panel. The appeals panel shall only consider documentation included in the appeal brief and reply brief, unless

- a) Significant new evidence has come to light; and
- b) Such evidence reasonably was not available to the appellant or appellee, as appropriate, at the time of filing; and
- c) Such evidence was provided by the appellant or appellee, as appropriate, to the other parties as soon as it became available.

This information shall be provided at least two weeks before the date of the appeals panel hearing.

The rules contained in the current edition of *Robert's Rules of Order Newly Revised (latest edition)* shall apply to questions of parliamentary procedure for the hearing not covered herein.

### 7.1.7.6 Appeals Panel Decision

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The appeals panel shall render its decision in writing within 30 days of the hearing, stating findings of fact and conclusions, with reasons there for, based on a preponderance of the evidence. Consideration may be given to the following positions, among others, in formulating the decision:

- a) Finding for the appellant, remanding the action to the appellee, with a specific statement of the issues and facts in regard to which fair and equitable action was not taken;
- b) Finding against the appellant, with a specific statement of the facts that demonstrate fair and equitable treatment of the appellant and the appellant's objections;
- c) Finding that new, substantive evidence has been introduced, and remanding the entire action to the appropriate group for reconsideration.

### 7.1.7.7 Request for Re-hearing

The decision of the appeals panel shall become final 30 days after it is issued, unless one of the parties files a written notice of request for re-hearing prior to that date with the EC Recording Secretary, in which case the decision of the appeals panel shall be stayed pending review by the EC at its next meeting. At that time, the EC shall decide

- a) To adopt the report of the appeals panel, and thereby deny the request for re-hearing; or
- b) To direct the appeals panel to conduct a re-hearing.

Further complaints if a re-hearing is denied shall be referred to the Computer Society SAB.

## 7.2 LMSC Working Groups

### 7.2.1 Function

The function of the Working Group is to produce a draft standard, recommended practice or guideline. These must be within the scope of the LMSC, the charter of the Working Group and an approved PAR, or a PAR under consideration by the IEEE Standards Board, as established by the Executive Committee. After the approval of the Working Group's standard, recommended practice or guideline, the function of the Working Group is to review, revise, and affirm its documents.

### 7.2.2 Chair

LMSC Working Group Chairs and Vice Chairs shall be elected by the Working Group and confirmed by the LMSC Executive Committee. Terms shall end at the end of the first Plenary session of the next even numbered year. WG Chairs must also be members of any grade of the IEEE and members of the IEEE-SA.

**Comment:** WG Chairs must also be SA members – Standards Board Bylaws 5.2.1

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Initial appointments, and temporary appointments to fill vacancies due to resignations or removals for cause, may be made by the Chair of the LMSC, and shall be valid until the end of the next Plenary session.

An individual who has served as Chair or Vice Chair of a given Working Group for a total of more than eight years in that office may not be elected to that office again.

A Working Group may elect a new Chair at any Plenary session, subject to confirmation by the LMSC Executive Committee. A motion to hold an election must be passed by 75% of the voting members of the Working Group present.

### 7.2.3 Membership

Membership belongs to the individual, not an organization, and may not be transferred.

#### 7.2.3.1 Establishment

All persons participating in the initial meeting of the Working Group become members of the Working Group. Thereafter, membership in a Working Group is established by participating in the meetings of the Working Group at two out of the last four Plenary sessions, and (optionally) a letter of intent to the Chair of the Working Group. Participation is defined as at least 75% presence at a meeting. Membership starts at the third Plenary session attended by the participant. One duly constituted interim Working Group or task group meeting may be substituted for the Working Group meetings at one of the two Plenary sessions (See subclause 7.2.3.5 Meetings and Participation).

Attendees of the Working Group who have not achieved member status are known as observers. Liaisons are those designated individuals who provide liaison with other working groups or standards bodies.

Although not a requirement for membership in the Working Group, participants are encouraged to join the IEEE, IEEE Standards Association (IEEE-SA) and the IEEE Computer Society. Membership in the IEEE SA will also allow participants to join the sponsor level ballot group. 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.

Membership may be declared at the discretion of the Working Group Chair (e.g. for contributors by correspondence or other significant contributions to the Working Group).

#### 7.2.3.2 Retention

Membership is retained by participating in at least two of the last four Plenary session meetings. One duly constituted interim Working Group or task group meeting may be substituted for one of the two Plenary meetings.

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### 7.2.3.3 Loss

Membership may be lost if two of the last three Working Group letter ballots are not returned, or are returned with an abstention other than “lack of technical expertise.” This rule may be excused by the Working Group Chair if the individual is otherwise an active participant. Membership may be re-established as if the person were a new candidate member.

### 7.2.3.4 Rights

The rights of the Working Group members include the following:

- a) To receive a notice of the next meeting.
- b) To receive a copy of the minutes.
- c) To vote at meetings if and only if present.
- d) To vote in Working Group Letter Ballots.
- e) To examine all Working Draft documents.
- f) To lodge complaints about Working Group operation with the Executive Committee.
- g) To petition the Executive Committee in writing. (A petition signed by two-thirds of the combined members of all Working Groups forces the Executive Committee to implement the resolution.)

### 7.2.3.5 Meetings and Participation

Working Group meetings are open to anyone who has complied with the registration requirements (if any) for the meeting. Only members have the right to participate in the discussions. The privilege of observers to participate in discussions may be granted by the Working Group Chair.

## 7.2.4 Operation of the Working Group

The operation of the Working Group has to be balanced between democratic procedures that reflect the desires of the Working Group members and the Working Group Chair’s responsibility to produce a standard, recommended practice, or guideline, in a reasonable amount of time. *Robert’s Rules of Order Newly Revised* (latest edition) is the reference for parliamentary procedures.

### 7.2.4.1 Chair’s Function

The Chair of the Working Group decides procedural issues. The Working Group members and the Chair decide technical issues by vote. The Working Group Chair decides what is procedural and what is technical.

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## 7.2.4.2 Voting

There are two types of votes in the Working Group. These are votes at meetings and votes by letter ballot.

### 7.2.4.2.1 Voting at Meeting

A vote is carried by a 75% approval of those members voting “Approve” and “Do Not Approve”. No quorum is required at meetings held in conjunction with the Plenary session since the Plenary session time and place is established well in advance. A quorum is required at other Working Group meetings. The Working Group Chair may vote at meetings. A quorum is at least one-half of the Working Group members.

### 7.2.4.2.2 Voting by Letter Ballots

The decision to submit a draft standard or a revised standard to the Sponsor Ballot Group must be ratified by a letter ballot. Other matters may also be decided by a letter ballot at the discretion of the Working Group Chair. The Working Group Chair may vote in letter ballots.

The ballot shall contain three choices:

- Approve. (May attach non-binding comments.)
- Do Not Approve. (Must attach specific comments on what must be done to the draft to change the vote to “Approve”.)
- Abstain. (Must include reasons for abstention.)

To forward a draft standard or a revised standard to the Executive Committee for approval for Sponsor Ballot Group voting, a letter ballot (or confirmation letter ballot) must be done first within the Working Group. A 75 percent approval of the Working Group confirmation letter ballot is necessary with at least 50 percent of the members voting. The 75 percent figure is computed only from the “Approve” and “Do Not Approve” votes. Subsequent confirmation ballots to the Sponsor Ballot Group do not require Executive Committee approval.

The Working Group Chair determines if and how negative votes in an otherwise affirmative letter ballot are to be resolved. Normally, the Working Group meets to resolve the negatives or assigns the task to a ballot resolution group.

There is a recirculation requirement. For guidance on the recirculation process see subclause 5.4.3.2 Resolution of comments, objections, and negative votes in the IEEE-SA Standards Board Operations Manual.

The letter ballot shall be conducted by electronic means. The response time shall be at least thirty days. However, for recirculation ballots, and for letter ballots not related to the submission of draft standards, the response time shall be at least fifteen days.

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Submission of a draft standard or a revised standard to the Executive Committee must be accompanied by any outstanding negative votes and a statement of why these unresolved negative votes could not be resolved.

#### 7.2.4.2.3 Roll Call Votes

A roll call vote may be held at the discretion of the chair.

A roll call vote may be called for by any member of the group, without obtaining the floor, at any time after the question has been put, even after the vote has been announced and another has the floor and it is called for before another motion has been made. The call does not require a second, and cannot be debated, amended, or have any other subsidiary motion applied to it.

Upon a call for a roll call vote, the chair shall proceed according to these three options.

1. The chair may hold the vote
2. The chair may hold a vote on the question of whether to hold a roll call vote. This vote must achieve greater than 25% of the members voting Yes to pass. The 25% is counted by dividing the count of Yes votes by the sum of the Yes and No votes. This vote is not subject to a roll call vote.
3. The chair may refuse the request for a roll call vote if this privilege is being abused by members repeatedly calling for a roll call vote. The chair shall allow both the majority and minority reasonable and fair use of the roll call vote.

Each roll call vote and call for a roll call vote shall be recorded in minutes of the meeting. For each roll call vote, the minutes shall include each member's name, their vote and the final result of the vote. For each call for a roll call vote, the minutes shall include:

- i. The name of the requestor of the roll call vote.
- ii. The decision of the chair on the request and, when applicable, the results of the vote on whether to hold the roll call or the reasons of the chair for denying the roll call vote.

#### 7.2.4.3 Working Group Chair's Responsibilities

The main responsibility of the Working Group Chair is to produce a draft standard, recommended practice, or guideline, or to revise an existing document. The responsibilities include:

- a) Call meetings and issue a notice for each meeting at least four weeks prior to the meeting.
- b) Issue meeting minutes and important requested documents to members of the Working Group, the Executive Committee, and liaison groups. The meeting minutes are to include:

- List of participants
- Next meeting schedule
- Agenda as revised at the start of the meeting
- Voting record (Resolution, Mover / Second, Numeric results)

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Sufficient detail shall be presented in the minutes to allow a person knowledgeable of the activity, but not present at the discussion, to understand what was agreed to and why.

Minutes shall be distributed within 45 days of the meeting to the attendees of the meeting, all members and all liaison people.

- c) Maintain liaison with other organizations at the direction of the Executive Committee or at the discretion of the Working Group Chair with the approval of the Executive Committee.

If in the course of standards development any Working Group utilizes a standard developed or under development by another organization within Project 802, by another IEEE group or by an external organization, the Working Group shall reference that standard and not duplicate it.

If a standard cannot be utilized as is and modifications or extensions to the standard are necessary, the Working Group should:

- 1) define the requirements for such changes,
- 2) make these requirements known to the other organization, and
- 3) solicit that organization for the necessary changes.

Only if the required changes cannot be obtained from the other organization, can the Working Group, with the concurrence of the Executive Committee, develop these changes itself. Even in the latter case, the Working Group should seek the concurrence of the other organization by joint meetings, joint voting rights or other mechanisms on the changes being made.

- d) Ensure that any financial operations of the WG comply with the requirements of Section 5.1.6 of these Policies and Procedures.
- e) Speak for the Working Group to the Executive Committee and, in the case of a “Directed Position” vote the will of the Working Group in accordance with the Direct Position Procedure of this P&P.

#### 7.2.4.4 Working Group Chair’s Authority

To carry out the responsibilities cited in subclause 7.2.4.3 Working Group Chair’s Responsibilities, the Working Group Chair has the authority to:

- a) Call meetings and issue meeting minutes.
- b) Decide which issues are technical and which are procedural.
- c) Establish Working Group rules beyond the Working Group rules set down by the Executive Committee. These rules must be written and all Working Group members must be aware of them.
- d) Assign/unassign subtasks and task leaders or executors, e.g. secretary, subgroup chair, etc.
- e) Determine if the Working Group is dominated by an organization, and, if so, treat that organizations’ vote as one (with the approval of the Executive Committee).

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- f) Make final determination if and how negative letter ballots are to be resolved when a draft standard, recommended practice, or guideline, is to be sent to the Executive Committee for approval for Sponsor Ballot Group voting.

**7.2.4.5 Removal of Working Group Chairs or Vice Chairs.**

The procedures specified in subclause 7.2.2 Chair are to be followed under normal circumstances. If a Working Group or TAG feels it is being inappropriately led or significantly misrepresented by its Chair or a Vice Chair and is unable to resolve the issue internal to the Working Group or TAG, then it is the responsibility of that Working Group to make and pass (75% of voting members present required) a motion to that effect and so notify the 802 Executive Committee with the recommended action and all supporting rationale in written form. The process for removal of committee Chairs, Vice Chairs, and other officers is prescribed in the IEEE Computer Society, Standards Activities Board “SAB Policies and Procedures” subclause 4.8.3.1, Removal of Chairs and Vice Chairs, is included here with relative terminology (e.g., subsidiary committee) translated to LMSC terms (e.g., Working Group).

The LMSC Executive Committee may remove the Chair or a Vice Chair of a Working Group or TAG for cause.

The Chair of the LMSC Executive Committee shall give the individual subject to removal a minimum of thirty (30) days written mail notice, with proof of delivery, of a meeting of the LMSC Executive Committee at which the removal is to be decided. The individual subject to removal shall have the opportunity to confront the evidence for removal, and to argue in his or her behalf.

In the clear and documented case of gross misconduct, the Chair of the LMSC Executive Committee may suspend the Chair of a Working Group, with the concurrence of the IEEE Computer Society VP of Standards. A meeting or teleconference of the LMSC Executive Committee shall be convened as soon as practical, but in no case later than thirty (30) days, to review the suspension as provided for above.

**7.2.4.6 Precedence of Operating Rules**

If Working Group operation conflicts with the LMSC Policies and Procedures, then the LMSC Policies and Procedures shall take precedence.

**7.2.5 Deactivation of Working Group**

The LMSC Executive Committee may deactivate a Working Group. If the Working Group has not generated standards or recommended practices, the Working Group can be disbanded. If the Working Group has produced standards or recommended practices, the Working Group should be hibernated.

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### 7.2.5.1 Disbanding a Working Group.

After all standards, recommended practices and Technical Reports for which a hibernating working group is responsible are withdrawn or transferred to another group or groups, an Executive Committee electronic ballot of 30 days minimum duration will be conducted to determine whether the hibernating working group will be disbanded.

If the Executive Committee electronic ballot on disbanding the group passes, the Working Group is disbanded. If the ballot fails, then the Executive Committee Chair shall determine a future date when the disbanding of the group will be rebaloted.

### 7.2.5.2 Hibernation of a Working Group

A Working Group can be hibernated at the request of the Working Group chair and the approval of the LMSC Executive Committee. The hibernating Working Group can be returned to active status by the LMSC Executive Committee.

#### 7.2.5.2.1 Core of Experts

The chair of a hibernating Working Group shall maintain a list of experts that are available to answer questions and provide clarification about the standards and/or recommended practices generated by the Working Group.

#### 7.2.5.2.2 Inquiries/Interpretations

Inquiries and interpretations of standards and recommended practices that were generated by a hibernating Working Group shall be directed to the chair of the hibernating Working Group. The chair shall attempt to resolve the inquiry or interpretation using the core of experts, as necessary. If the chair is unable to resolve the inquiry or interpretation, the chair may petition the LMSC Executive Committee to activate the Working Group.

#### 7.2.5.2.3 Executive Committee Representation

The chair of a hibernating Working Group may retain voting rights on the LMSC Executive Committee for three LMSC Plenary meetings after the WG has hibernated:

- a) if the chair of the hibernating WG was the chair of the WG when it entered hibernation, and
- b) if the chair of the hibernating WG maintains attendance by attending at least 75% of both the opening and closing Executive Committee meetings at two of the last four plenary sessions.

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New non-voting hibernating Working Group chairs to replace vacancies may be appointed by the LMSC chair as soon as practical and affirmed by the LMSC Executive Committee at the next plenary meeting. A non-voting Hibernating Working Group Chair of the Executive Committee shall be recognized as a full member of the EC, having all rights and meeting privileges except the right of voting on EC motions.

### 7.2.6 Working Group Financial Operations

A WG may wish or need to conduct financial operations in order for it to host interim sessions for itself or one or more of its sub groups or to acquire goods and/or services that it requires for its operation.

A WG that claims any beneficial interest in or control over any funds or financial accounts whose aggregate value is \$500 or more is determined to have a treasury and said to be “operating with treasury”.

A WG may operate with treasury only if it requests permission and is granted permission by the LMSC EC to operate with treasury and thereafter complies with the rules of this subclause. The WG request to operate with treasury shall be supported by a motion that has been approved by the WG and that authorizes the WG to request such permission and to operate with treasury. The WG may, again by WG approved motion, surrender EC granted permission to operate with treasury. The LMSC EC may withdraw permission for a WG to operate with treasury for cause. A WG sub group shall not operate with treasury.

#### 7.2.6.1 WG Financial Operation with Treasury

The financial operations of a WG operating with treasury shall comply with the following rules.

1. The WG shall conduct its financial operations in compliance with all IEEE, IEEE-SA and IEEE Computer Society rules that are applicable to the financial operations of standards committees. As of November 2003, the documents containing these rules include but are not limited to the following.

IEEE Policies, Sections 10.2 Standards Meetings, 11 IEEE Financial Matters and 12.6 Contracts with exclusive Rights

IEEE Financial Operations Manual (FOM), Sections FOM.3 Asset/Liability Management and FOM.8 Contract and Purchasing Orders

Computer Society Policies and Procedures Manual, Section 16.7.1 Checking Accounts

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2. The WG shall have a Treasurer who is responsible to the WG Chair for the operation of the WG treasury, for ensuring that the operation of the WG treasury and the WG financial accounts complies with these Policies and Procedures and follows prudent financial procedures.
3. The WG shall have an Executive Committee (WG EC) comprised of at minimum the WG Chair, Vice Chairs, Secretaries and Treasurer. The WG Chair shall be the Chair of the WG EC.
4. The WG shall open and maintain a WG bank account whose title shall begin with "IEEE" followed by the numerical identity of the WG, e.g. IEEE 802.1. The LMSC Chair shall be an authorized signer for the account. The LMSC Treasurer shall be notified within 30 days of the bank, account number, account title and authorized signers for the account when the account is opened and whenever any on these items change.
5. The WG may open and maintain one or more WG merchant accounts for the settlement of credit card transactions. The title of each merchant account shall begin with "IEEE" followed by the numerical identity of the WG, e.g. IEEE 802.1. Each WG merchant account shall be linked to the WG bank account. The LMSC Treasurer shall be notified within 30 days of each merchant account, account number and account title when the account is opened and whenever any on these items change.
6. All funds collected and/or received by a WG shall be deposited in the WG bank account.
7. All funds retained by a WG shall be held in the WG bank account or in IEEE approved investments.
8. The WG may disburse and/or retain funds as appropriate to pay approved expenses and maintain an approved operating reserve.
9. Signature authority for any WG financial account is restricted to those IEEE, IEEE-SA and Computer Society officers and/or staff that are required to have signature authority by IEEE, IEEE-SA and Computer Society regulations, to LMSC officers and to the officers of the WG owning the account with the sole exception that at most two other individuals may be granted signature authority for the WG bank account for the sole purpose of assisting the WG in conducting its financial operations provided that each such individual has provided agreements, indemnity and/or bonding satisfactory to the IEEE. The granting of signature authority to any individual other than the WG Treasurer and those required by IEEE, IEEE-SA, Computer Society or LMSC regulations shall be by motion that is approved by the WG.
10. The WG shall prepare and maintain its own accounting and financial records.
11. The WG Treasurer shall prepare for each WG plenary session a financial report that summarizes all of the WG financial activity since the last such report. The report shall be submitted to the LMSC treasurer before the opening of the session, shall be presented to WG membership at the opening plenary meeting of the session and shall be included in the session minutes. The format and minimum content of the report shall be as specified by the LMSC Treasurer.
12. The WG Treasurer shall prepare and submit an audit package for each calendar year during any portion of which the WG operated with treasury as required by IEEE regulations. The package shall contain all material required by IEEE Audit Operations for an IEEE audit and

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shall be submitted to the IEEE for audit or the LMSC Chair for local audit as required by IEEE audit regulations. If the package is submitted to the IEEE, a summary of the WG's financial operations for the audit year shall be submitted to the LMSC Chair by the same time that the audit package is submitted to the IEEE. The format and minimum content of the summary shall be as specified by the LMSC Treasurer.

13. The maximum and minimum size of the WG operating reserve may be set by the LMSC EC.
14. All WG expenditures require the approval of the WG EC with the sole exception that each WG EC member may be reimbursed from the WG treasury for up to \$200 of WG expenses incurred between WG sessions without specific approval of the WG EC.
15. The location, date and fees for each interim session hosted or co-hosted by the WG require the approval of the WG EC.
16. For each interim session hosted or co-hosted by the WG, all reasonable and appropriate direct expenses for goods and/or services for the session and that are provided under contract(s) and/or agreement(s) that are exclusively for that interim session are approved when the WG EC approves the location, date and fees for the session.
17. Any contract and/or agreement to which the WG is a party, whose total value is greater \$5000 and that is not for goods and/or services exclusively for a single interim session hosted or co-hosted by the WG require the approval of the WG EC and the LMSC EC before execution.
18. The WG shall maintain an inventory of each item of equipment that it purchases that has a useful life of greater than 6 months and purchase price of greater than \$50. A copy of the inventory shall be provided to the LMSC Treasurer during December of each year.

#### 7.2.6.2 WG Financial Operation with Joint Treasury

Two or more WG(s) and/or TAG(s), with the approval of the LMSC EC, may operate with a single joint treasury. WG(s) and/or TAG(s) that operate with a joint treasury shall have no other treasury. The merger of separate WG/TAG treasuries into a joint treasury or the splitting of a joint treasury into separate WG/TAG treasuries requires approval of the LMSC EC. Each such action shall be supported by a motion from each of the involved WG(s) and/or TAG(s) that requests the action and that has been approved by the WG/TAG.

The operation of a joint treasury is subject to the same rules as a WG operating with treasury with the following exception The Executive Committee over seeing the joint treasury shall be a Joint Executive Committee that is the union of the Executive Committees of the WG(s)/TAG(s) operating with the joint treasury. The Chair of the Joint EC shall be selected by the Joint Executive Committee and shall be the Chair of one of the participating WG(s)/TAG(s).

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### 7.3 LMSC Technical Advisory Groups (TAG)

The function of a Technical Advisory Group is to provide assistance to Working Groups and/or the Executive Committee. The TAGs operate under the same rules as the Working Groups, with the following exceptions:

- a) A TAG may not write standards, but may write recommended practices and guidelines, and documents on specialty matters within the purview of the TAG.
- b) A TAG is established by the Executive Committee at the request of one or more Working Groups, or at the discretion of the Executive Committee, to provide assistance within a technical topic area.
- c) The primary responsibility of a TAG is to provide assistance within its topical area as specifically requested by one or more of the Working Groups and/or the Executive Committee.
- d) The decision to submit a draft recommended practice or draft guideline to Sponsor Ballot Group voting shall be governed by the same rules as those governing the submission of a draft standard (see subclause 7.2.4.2.2 Voting by Letter Ballots).
- e) Any document that is represented as the position of a TAG must have attained approval per the voting procedures in subclause 7.2.4.2.
- f) In between Plenary and Interim meetings, the Chair of the TAG is empowered to schedule teleconference meetings to allow the TAG to conduct business as required, provided that the date and time of the teleconference and agenda are published on the TAG web-site and e-mail reflector at least 5 calendar days before the meeting.
- g) Votes on TAG documents other than recommended practices and guidelines may be conducted verbally during teleconference meetings if at least 50% of the TAG members are present.
- h) Votes on TAG documents other than recommended practices and guidelines may be conducted via electronic balloting. The minimum period shall be 5 calendar days.
- i) A TAG shall maintain an area on the LMSC web site to post the minutes, conference announcements, submissions, drafts, and output documents.
- j) A TAG shall maintain an e-mail distribution list of its members for making the announcements of teleconferences and availability of important information on the TAG's web site pages.

### 7.4 Study Groups

Study groups are formed when enough interest has been identified for a particular area of study such as a new access method or modified use of an existing access method. Two types of Study Groups are specified:

- 1. An Executive Committee Study Group (ECSG) is initiated by vote of the Executive Committee and the ECSG Chair is appointed and approved by the Executive Committee. The ECSG Chair has the same responsibilities as a Working Group Chair as specified in subclause 7.2.4.1 but does not have Executive Committee voting rights.

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2. A Working Group Study Group (WGSG) is initiated by vote of the Working Group or TAG and approved by the Executive Committee. The WGSG Chair is appointed and approved by the Working Group or TAG.

The Study Group shall have a defined task with specific output and a specific time frame established within which they are allowed to study the subject. It is expected that the work effort to develop a PAR will originate in a ECSG or WGSG. A Study Group shall report its recommendations, shall have a limited lifetime, and is chartered meeting-to-meeting. After the Study Group recommendation(s) has been accepted by the parent body, the Study Group will be disbanded no later than the end of the next Plenary Session.

The decision of whether to utilize an existing Working Group or TAG, or to establish a new Working Group or TAG to carry out work items recommended by a Working Group shall be made by the Executive Committee with due consideration of advice from the Study Group.

#### 7.4.1 Study Group Operation

Progress of each Study Group shall be presented at Opening Plenary meetings by the Working Group, TAG, or ECSG Chair. Study Groups may elect officers, other than the Chair, if necessary and will follow the general operating procedures for Working Groups specified in subclauses 7.2.3.5 and 7.2.4. Because of the limited time duration of a Study Group no letter ballots are permitted.

#### 7.4.2 Voting at Study Group Meetings

Any person attending a Study Group meeting may vote on all motions (including recommending approval of a PAR). A vote is carried by 75% of those present and voting “Approve” or “Disapprove.”

#### 7.5 Balloting Group

All members of the Balloting Groups shall be members or affiliates of the IEEE or the IEEE Computer Society unless otherwise requested by the Executive Committee and approved by the Standards Activity Board. The Balloting Groups are formed by soliciting members of the LMSC balloting pool who are interested in voting on specific documents to be balloted, such as draft standards, recommended practices or guidelines.

### 8. LMSC SESSIONS

There is no membership requirement for attendance at an LMSC Plenary session or an interim session of an LMSC subgroup; they are open forums. However, anyone who attends any portion of a technical meeting that is part of an LMSC Plenary session or an interim session of an LMSC subgroup is obligated to comply with the registration requirements for the session.

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For the purposes of these Policies & Procedures, a “technical meeting” is defined as, but is not limited to, any meeting an of LMSC Working Group, Technical Advisory Group, Executive Committee Study Group or any of their subgroups or any call for interest at an LMSC session.

### 8.1 Plenary Sessions

Plenary sessions are the primary LMSC sessions. All active LMSC WGs and TAGs hold their plenary sessions during LMSC Plenary sessions.

The LMSC may collect fees, usually a registration fee, from all attendees of any portion of any technical meeting that is a part of an LMSC Plenary session to cover the expenses of the Plenary session and the expenses of operating the LMSC.

#### 8.1.1 LAN MAN STANDARDS COMMITTEE PLENARY

The Plenary session consists of the Opening Plenary meetings, Executive Committee meetings and Working Group meetings. The Plenary meeting is a meeting of individuals interested in local and metropolitan area network standards. The function of the Plenary meetings is information dissemination:

- a) Status reports from the Working Groups and Technical Advisory Groups.
- b) Liaison reports from other standards organizations such as ASC X3, ECMA, etc.
- c) Reports on schedules for future Plenary and Working Group meetings.
- d) Announcements and general news.

The main object of the Opening Plenary meeting will be to welcome new attendees and to inform the 802 membership about what is being done in the Working Groups and Executive Committee Study Groups. This report must include background on the relationship of the work to other Groups. It should not be a detailed statement about Standards Numbers and Progress.

At most 10 minutes should be taken by each Working Group for this material.

Each Working Group, Technical Advisory Group, and Executive Committee Study Group Chair shall provide a status report to the Executive Committee Recording Secretary no later than one hour after the end of closing Executive Committee meeting. This status report shall include a description of the progress made during the week, as well as plans for further work and future meetings. The Recording Secretary shall post these status reports on the 802 web page no later than one week after the close of the Plenary meeting.

The Plenary meetings are conducted by the LMSC Chair or a designated delegate.

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## 8.2 Interim Sessions

In addition to plenary sessions, an LMSC WG/TAG or WG/TAG sub group may hold interim sessions. An interim session may be for a single LMSC WG/TAG or WG/TAG subgroup or it may be a joint interim session for any combination of LMSC WGs, TAGs and WG/TAG sub groups.

Interim sessions shall have as goals: 1) Reasonable notification (>30 days) in addition to any announcement given at a plenary session, and 2) Few last minute shifts in location (<< 1 per year).

### 8.2.1 Interim Session Hosts

Each interim session and joint interim session shall have a Host. The Host is the entity that is responsible for the finances and the logistical planning, preparation for and execution of the session.

An interim session or joint interim session may be hosted by the LMSC, an LMSC WG or TAG operating with treasury, several LMSC WGs and/or TAGs operating with a joint treasury or a non-LMSC entity. LMSC WGs or TAGs not authorized to operate with treasury and LMSC WG or TAG subgroups may not host an interim session.

Alternatively, an interim session or joint interim session may be co-hosted (jointly hosted) by any combination of an LMSC WG or TAG operating with treasury, several LMSC WGs and/or TAGs operating with a joint treasury and a non-LMSC entity. Each of the entities co-hosting an interim session (Co-hosts) shall have approved a written agreement stating the responsibilities and liabilities of each Co-host and the disposition of any surplus funds before any financial commitments are made for the co-hosted session. When an interim session is co-hosted, the term Host means all of the Co-hosts as a single entity.

The responsibilities, authorities and liabilities of a Host are defined in the following list. The Host may contract with meeting planners and/or other entities to assist it in hosting the session.

1. The Host is solely responsible for the finances and the logistical planning, preparation for and execution of the session.
2. The Host will consult and coordinate with the Chair(s) of the WG(s)/TAG(s) or WG/TAG sub group(s) participating in the session on the financial and logistical planning, preparation for and execution of the session.
3. The Host is solely responsible for all contracts and agreements that are for goods and/or services exclusively for the session.
4. The Host is solely responsible for collecting the fees, if any, from attendees and for paying the session expenses including any penalties.
5. The Host is solely responsible for any session deficit and the disposition of any session surplus funds.

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### 8.2.2 Interim Session Fees

The Host of an interim session may collect fees from all attendees of any part of any technical meeting that is part of the session. The fees, usually a registration fee, shall be used to cover the direct expenses of the session, and in some cases may also be used to cover other WG/TAG operating expenses. The “direct expenses” of a session are those expenses, including penalties, that are incurred for goods and/or services that are completely consumed by the planning, preparation for and/or execution of the session.

If a WG operating with treasury, or several WGs and/or TAGs operating with a joint treasury, are the Host of an interim or joint interim session, any fees collected from attendees should be deposited respectively in WG treasury or joint treasury. If several WGs operating with treasury and/or several groups of WGs/TAGS operating with joint treasury co-host a joint interim session, any fees collected from attendees should be deposited in the bank account of one of the co-hosting WGs/TAGs which shall be specified in the so-hosting agreement.

If a WG/TAG operating with treasury hosts or co-hosts an interim session for only itself, or several WG(s) and/or TAG(s) operating with a single joint treasury host or co-host a joint interim session for only themselves, the collected fees, if any, may also be used to cover other operating expenses of the participating WG(s)/TAG(s).

If a WG/TAG operating with treasury hosts or co-hosts a joint interim session for itself or its subgroups and organization units from other WG(s)/TAG(s), or several WG(s)/TAG(s) operating with a joint treasury host or co-host a joint interim session for themselves or their subgroups and organization units from other WG(s)/TAG(s), the collected fees, if any, may also be used to cover other operating expenses of the hosting WG(s)/TAG(s) if and only if the fees for the session are agreed to by the Chairs of all of the WG(s)/TAG(s) with an organization unit participating in the session. An “organizational unit” of a WG/TAG is defined as the WG/TAG itself or any of its subgroups.

### 8.2.3 Interim Session Financial Reporting

A WG/TAG or WG/TAG subgroup shall prepare and submit all financial reports required by IEEE, IEEE-SA, Computer Society and LMSC regulations on any of its interim sessions for which fees were collected and that did not comply with all of the following requirements.

1. The WG/TAG or WG/TAG subgroup was not the Host of the session.
2. The Host complied with the definition of a host in subclause 8.2.1 of these P&P.
3. Neither the WG/TAG or WG/TAG subgroup nor any of its officers had any financial responsibility for the session including any deficit or penalties.
4. Neither the WG/TAG or WG/TAG subgroup nor any of its officers handled and/or had or exercised any control over any funds either received for the session or disbursed to pay the expenses of the session including penalties.
5. Neither the WG/TAG or WG/TAG subgroup nor any of its officers had and/or exercised any decision authority over the disposition of any surplus funds from the session.

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- Neither the WG/TAG or WG/TAG subgroup nor any of its officers have or had any control over or beneficial interest in any surplus funds from the session.

In the case of an interim session that is hosted by a single non-IEEE entity and for which fees are collected, the usual financial goal is for the session to be non-deficit with a minimum surplus. A recommended way of achieving this is for the Host to commit to a contribution to the session and then reduce that contribution as required to minimize any session surplus. It may be most convenient for the Host to not make the contribution (transfer the funds) until the size of the contribution needed to meet the non-deficit minimum surplus goal is known. If there is a surplus, the Host may retain it or dispose of it in any manner it chooses that does not violate item 6 above.

### 8.3 Registration Policy

In order for an individual to become registered for a given LMSC Plenary or interim session of an LMSC subgroup, the individual must:

- have complied with the registration requirements for all previously attended LMSC Plenary sessions and interim sessions of LMSC subgroups, including payment of any required registration fees, and
- have completed a valid registration for the session in question, including payment of any required registration fee.

An individual who attends any portion of a technical meeting that is part of an LMSC Plenary session or an interim session of an LMSC subgroup is obligated to comply with the registration requirements for that session.

An individual who attends any portion of a technical meeting that is part of an LMSC Plenary session or an interim session of an LMSC subgroup but does not comply with the registration requirements for that session, and further has not complied with those requirements within 60 days after the end of the session, including payment of any required registration fees, shall be subject to the following sanctions:

- No participation credit will be granted for said session.
- Any participation credit acquired before said session toward membership in any LMSC group is revoked.
- Membership in any 802 group is terminated.
- No participation credit will be granted for attendance at any subsequent LMSC session until the individual has complied with the registration requirements for all previously attended 802 sessions by the start of said subsequent session.

An individual who has lost membership in an LMSC group due to failure to comply with the registration requirements for an LMSC Plenary or interim session of an LMSC subgroup may again earn membership in an LMSC group as follows.

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First, comply with the registration requirements for all LMSC Plenary and interim sessions previously attended by the individual. An individual may not be granted membership in any LMSC group until this requirement is fulfilled.

Second, acquire the participation credit required for group membership as required for an individual that had never previously attended an LMSC session.

The interpretation and implementation of the registration policy for LMSC Plenary sessions and LMSC hosted interim sessions shall be the responsibility of the LMSC Treasurer and the LMSC Executive Secretary. Unless otherwise specified in Working Group, Technical Advisory Group or Executive Committee Study Group policies and procedures, the interpretation and implementation of the registration policy for interim sessions of LMSC subgroups not hosted by the LMSC shall be the responsibility of the Chair and Treasurer (if any) of the LMSC subgroup(s) holding the session.

## 8.4 Quorum

Quorum requirements are as stated elsewhere in this document and in other documents with precedence over this one.

## 9. Vote

### 9.1 Balloting Positions

The LMSC Sponsor Ballots will be administered by the Executive Committee in accordance with clause 5 of the IEEE-SA Standards Board Operations Manual and the Procedure of clause 19 “IEEE LMSC Document Numbering Plan” of these rules.

### 9.2 Voting By Ballot

The Sponsor shall be allowed to conduct Sponsor business between meetings at the discretion of the Chair by use of a letter or electronic ballot.

### 9.3 PROCEDURE FOR ESTABLISHING A DIRECTED POSITION (Formerly “Procuedure 9”)

Members of the LMSC Executive Committee have a responsibility to act in the best interest of the LMSC as a whole. Working Group Chairs have a responsibility to represent their Working Group on the Executive Committee. At times these responsibilities are in conflict with each other.

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Decisions of a Working Group may be of such a nature that the Working Group members deem it necessary to “Direct” the Working Group Chair to vote a specific way on Executive Committee motions related to a Working Group decision. When directed, through the process described below, the Working Group Chair shall vote as mandated by the Working Group resolution for the specified subject on any formal vote(s) in the Executive Committee. It would be anticipated that the use of a directed (i.e., instructed) vote is an exceptional situation and hence used infrequently, e.g., critical PAR votes, formation of new Working Groups and Study Groups.

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Working Group developed positions are not to be considered as automatic "Directed Positions." After a Working Group motion has been passed that establishes the Working Group’s position, a separate Directed Position (75% required to pass per subclause 7.2.4.2 Voting) motion is required to make that Working Group Position a Directed Position. A Directed Position motion applies only to a specific, bounded, Working Group issue that is to be brought before the Executive Committee. Directed Position motions may not be combined, nor may any procedure be adopted that diminishes the extraordinary nature of establishing a “Directed Position.”

The Working Group Chair, however, has the freedom to express other views in an attempt to persuade members of the Executive Committee to consider them, however, such views shall be identified as distinct from and not the formal Working Group Directed Position. The Working Group Chair is required to disclose to the Working Group his/her intent to offer a position contrary to a Directed Position. When presenting a Directed Position to the Executive Committee, the Working Group Chair is obligated to present and support the Working Group’s Directed Position Motion with voting results, along with pros and cons behind the motion.

## 10. Communications

All Sponsor officers should use the Sponsor letterhead if available, or email notification, when corresponding on behalf of Sponsor activities.

### 10.1 Formal Internal Communication

If correspondence between subcommittees or between working groups of different subcommittees involves issues or decisions (that is, non-routine matters) affecting other subcommittees, copies should be sent to all affected subcommittee chairs, the Secretary, and the Sponsor officers.

### 10.2 External Communication

See procedures in clause 14.

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## 11. Interpretations

The policies of subclause [5.9](#) of the *IEEE-SA Standards Board Operations Manual* shall be followed.

## 12. Appeals

Appeals are achieved either using processes defined in WG/TAG P&P, or as defined in subclause 7.1.7.

## 13. Parliamentary Procedures

On questions of parliamentary procedure not covered in these Procedures, Roberts Rules of Order (revised) may be used to expedite due process.

## 14. Position Statements for Standards

All external communications shall comply with subclause [5.1.4](#) of the *IEEE-SA Standards Board Operations Manual*. These procedures also apply to communications with government and intergovernment bodies.

### ***14.1 PROCEDURE FOR COORDINATION WITH OTHER STANDARDS BODIES (Formerly "Procedure 3")***

These procedures apply to communications with other standards bodies or similar entities.

IEEE 802 communications

- Communications from the LMSC to external standards bodies shall not be released without prior approval by the EC. Such approval indicates that the communication represents the position of IEEE 802.
- All communications by IEEE 802 with external standards bodies shall be issued by the LMSC Chair and shall be copied to the EC.

#### **Working Group or TAG communications**

- Working Group communications with external standards bodies that are not "Information Only" shall be copied to the EC.

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- Working Group communications with external standards bodies shall not imply that they represent the position of IEEE or IEEE 802. They shall be issued by the Working Group or TAG Chair(s) and the LMSC Chair shall be included in the distribution list.

EC members receiving incoming liaison letters from external standards bodies shall forward a copy to the LMSC Chair, and, as applicable, the relevant Working Group or TAG Chair.

Informal communications shall not imply that they are a formal position of IEEE 802 or of the Working Group or TAG.

**14.2 PROCEDURE FOR COMMUNICATION WITH GOVERNMENT BODIES (Formerly “Procuedure 4”)**

These procedures apply to communications with government and intergovernmental bodies.

**IEEE 802 Communications**

- IEEE 802 communications to government bodies shall not be released without prior approval by a 2/3 majority of the EC.
- All IEEE 802 communications to government bodies shall be issued by the LMSC Chair as the view of IEEE 802 (stated in the first paragraph of the statement). Such communications shall be copied to the EC and the IEEE SA Standards Board Secretary and shall be posted on the IEEE 802 web site. The IEEE 802 web site shall state that all such position statements shall expire five years after issue.

**Working Group or TAG Communications**

- Working Group or TAG communications with government bodies shall not be released without prior approval by a 75% majority of the Working Group or TAG. Such communications may proceed unless blocked by an EC vote. For position statements not presented for review in an EC meeting, EC members shall have a review period of at least five days; if, during that time, a motion to block it is made, release of the position statement will be withheld until the motion fails.
- Working Group or TAG communications shall be identified in the first paragraph as the position of only the Working Group or TAG and shall be issued by the Working Group or TAG Chair(s) and shall include the LMSC Chair in the distribution. Such statements shall not bear the IEEE or IEEE 802 logos.

Incoming liaison letters to EC members shall be forwarded to the LMSC Chair, and, as applicable, the relevant Working Group or TAG Chair.

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Informal communications shall not imply that they are a formal position of the IEEE 802 or of the Working Group or TAG.

Proposed communications that need to be issued by other IEEE entities shall be forwarded to the IEEE SA Standards Board Secretary for further processing upon approval by the EC.

## 15. Standards Publicity

Any publicity issued within LMSC shall be in compliance with subclause [5.1.5](#) of the *IEEE-SA Standards Board Operations Manual* for further instructions.

## 16. USE OF LMSC FUNDS (Formerly “Procuedure 1”)

The purpose of the LMSC treasury is to allow the LMSC to collect and disburse funds for activities that are appropriate to the orderly development of LAN/MAN standards. Use of such funds includes:

1. Payment for the expenses of conducting LMSC hosted sessions and related meetings and for other LMSC operating expenses. Such expenses include, but are not limited to, the expenses for:
  - meeting rooms
  - document reproduction
  - meeting administration
  - food and beverages
  - computer networking and Internet connectivity
  - goods and services needed for the efficient conduct of business
  - insurance and
  - audits
2. Reimbursement to individuals for appropriate expenses not covered by other sources, such as corporations, other IEEE organizations, etc.

The primary source of funds for the LMSC is the registration fees collected from attendees of LMSC hosted sessions.

Specific policies regarding the treasury are as follows:

1. The LMSC shall open and maintain an LMSC bank account that will be administered by the LMSC Treasurer.
2. The LMSC may open merchant accounts as required for the processing of credit card charges. Such accounts shall be administered by the LMSC Treasurer.

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3. All funds received by the LMSC shall be promptly deposited in the LMSC bank account. All funds retained by the LMSC shall be held in the LMSC bank account or, if appropriate, in investments approved by the IEEE.
4. All LMSC expenditures require the approval of the EC with the sole exception that the LMSC Chair, Vice Chairs, Secretaries, Treasurer, and each Working Group and TAG Chair whose group is not operating with treasury, may be reimbursed from the LMSC treasury for up to \$200 of appropriate expenses incurred between LMSC Plenary sessions without specific approval of the EC.
5. The Treasurer will provide reports about LMSC finances to the LMSC membership at large at LMSC Plenary sessions and to the Executive Committee. The Treasurer will provide additional reports and participate in audits as required by IEEE rules.
6. The LMSC Treasurer shall strive to maintain an operating reserve (uncommitted funds on hand) sufficient for paying the worst-case expenses of canceling an LMSC Plenary session.
7. Executive Committee approval of the site for an LMSC hosted session constitutes authority for the Treasurer to pay all ordinary expenses for that session and any extraordinary expenses presented as part of the meeting site proposal.

## 17. PROCEDURE FOR PARS (Formerly “Procuedure 2”)

1. Any standards activity whose aim is to produce a Standard, Recommended Practice or Guideline must submit a PAR within six months of beginning their work.

Refer to Working Guide for Submittal of Project Authorization Request (PAR) and PAR Form, 1 January 1990.

Add pages, as necessary, of more detailed information than is on the PAR form about the Scope, Purpose and Coordination of the proposed project, but include summary text under Scope and Purpose.

2. Submit proposed PAR and, if applicable, responses to the five criteria per 6.0 below to LMSC Executive Committee for approval prior to sending outside of LMSC.

(Approval is contingent on inclusion of responses describing how the proposed PAR meets **the five criteria** and a work plan for the development of managed object definitions, either as part of the PAR or as a part of an additional PAR. PARs which introduce no new functionality are exempt from the requirement to provide responses to the 5 Criteria. Examples of such PARs are: Protocol Implementation Conformance Statements (PICS), Managed Object Conformance Statements (MOCS), PARs to correct errors and PARs to consolidate documents.)

Complete PARs shall be delivered to all Executive Committee members not less than 30 days prior to the day of the Opening Executive Committee meeting of an LMSC Plenary session. At the discretion of the LMSC Chair, PARs for ordinary items (like Maintenance PARs) and PAR changes essential to the orderly conduct of business (like division of existing work items or name changes to harmonize with equivalent ISO JTC-1 work items) may be placed on the

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Executive Committee agenda if delivered to Executive Committee members 48 hours in advance.

Delivery may be assumed if sent by either FAX or e-mail one full working day prior to the deadline, or if sent by express delivery service with guaranteed delivery one working day prior to the deadline, or if sent by US Mail, or Air Mail ten working days prior to the deadline. All PARs must be accompanied by supporting documentation which must include at least:

Explanatory technical background material

Expository remarks on the status of the development of the PAR, e.g., approved by WG, Draft pending Working Group approval at next meeting, etc.

3. In order to ensure wide consideration by the 802 members, PARs for significant new work (those that will result in a new Standard/Recommended Practice/Guideline or an addition to an existing one) must pass through the following process during the Plenary session week in which Executive Committee approval is sought:

The PAR must be presented in summary at the opening Plenary meeting to the general 802 membership. Supporting material must be available in sufficient detail for members of other Working Groups to understand if they have an interest in the proposed PAR, i.e., if they would like to contribute/participate in the proposed work, or identify if there is conflict with existing or anticipated work in their current Working Group. It is highly recommended that a tutorial be given at a previous Plenary session for major new work items.

Working Groups, other than the proposing Working Group, must express concerns to the proposing Working Group as soon as possible and must submit written comments to the proposing Working Group and the Executive Committee not later than 5:00 p.m. on Tuesday.

The proposing Working Group must respond to commenting Working Groups and to the Executive Committee together with a Final PAR not later than 5:00 p.m. on Wednesday. It will be assumed that insufficient coordination and/or inter Working Group consideration had occurred prior to the submission of the PAR if this deadline is not met, and the proposed PAR will not be considered by the Executive Committee at their closing Executive Committee meeting.

4. Working Group Chair shall sign the copyright acknowledgment.

5. LMSC Chair shall as sponsor submit the PAR to the following:

- a. Chair, CS Standards Activities Board
- b. IEEE Standards Office Secretary to NESCOM

## 6.0 CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

### 6.1 Broad Market Potential

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A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:

- a) Broad sets of applicability.
- b) Multiple vendors and numerous users.
- c) Balanced costs (LAN versus attached stations).

### 6.2 Compatibility

IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802. Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802.

Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.

### 6.3 Distinct Identity

Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized project shall be:

- a) Substantially different from other IEEE 802 standards.
- b) One unique solution per problem (not two solutions to a problem).
- c) Easy for the document reader to select the relevant specification.

### 6.4 Technical Feasibility

For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:

- a) Demonstrated system feasibility.
- b) Proven technology, reasonable testing.
- c) Confidence in reliability.

### 6.5 Economic Feasibility

For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated), for its intended applications. At a minimum, the proposed project shall show:

- a) Known cost factors, reliable data.
- b) Reasonable cost for performance.
- c) Consideration of installation costs.

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7. Withdrawn PARs.

Occasionally a PAR is withdrawn. When a PAR is to be withdrawn, the responsible WG chair in consultation with the WG shall consider whether the most current draft has content that should be archived. If so, the WG chair shall ensure the most current draft of the proposed standard is placed on the IEEE Document Distribution Service list. The WG chair shall add a cover page to the draft alerting the reader that the PAR has been withdrawn for this work, giving the specific date of the withdrawal and the rationale for the withdrawal.

The withdrawn draft shall be maintained on the IEEE Document Distribution Service list for a period of 3 years after the time of withdrawal, after which it shall be removed from the list.

**18. POLICY FOR DISTRIBUTION OF NEW IEEE LMSC STANDARDS PUBLICATIONS (Formerly “Procuedure 6”)**

1. Books will be distributed to those participants of the Working Group and major contributors listed in front matter of the standard who directly contributed to that standard or supplement. The LMSC Chair will establish the book distribution policy. The Executive Secretary in conjunction with the Working Group chair will implement the policy including generating information to provide to the IEEE Office for any distribution by IEEE Standards.
2. CD-ROMs, containing all IEEE 802 standards available at that point in time, available normally at the July Plenary on an annual basis, will be distributed to registered attendees who are Working Group voting members or EC members at the issuing meeting, and at subsequent plenary meetings for those not attending the issuing meeting until a new CD-ROM is available. Handout will occur on Wednesday (8AM-5PM).

The CD-ROM program will be reviewed annually by the IEEE 802 Chair and the IEEE Standards Department to ensure its appropriateness and to make any adjustments in the product development process and business arrangements that might be necessary.

**19. IEEE LMSC DOCUMENT NUMBERING PLAN (Formerly “Procuedure 7”)**

1. This numbering scheme applies to all LMSC Working Groups and TAGs.
2. It will cover all draft documents as well as other 802.x Working Group/TAG submissions to provide a complete index of all Working Group/TAG documents.
3. The format for the document numbers will be as follows:  
         either 802.na/Di-yy/m          (formal draft standards)

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or 802.n{tg}-yy/m (all other documents & correspondence)

where:

- n = a Working Group/TAG Designator (i.e. 0, 1, ..., 11),
- a = a PAR Series Designator (i.e. \_, A, B, C,...) for drafts of a document produced under an active PAR, and must include the {/Di} field,
- i = a Draft Revision Number for working documents produced under an active PAR, which starts at 1 and is increased by 1 with each new revision,
- yy = a year designator (i.e. 87, 88, 89, ...) to indicate the year in which the document number was assigned,
- m = a sequence number which starts at 1 at the beginning of each year and is increased by 1 each time a document number is assigned,
- tg = an optional task group designator to be used specifically for tracking task group submissions that are independent of the Working Group/TAG as a whole. Documents relevant to the whole Working Group/TAG will use the 802.n-yy/m form. The allowed formats for a task group designator are: one letter, two letters, or one letter followed by one number. All other characters are specifically prohibited.

## 20. PROCEDURE FOR PROJECT MANAGEMENT (Formerly “Procuedure 8”)

1. Update the Working Group or Technical Advisory Group status report and Sponsor Ballot milestone chart after every LMSC meeting. (Administered by LMSC Chair).
2. Send the minutes of each Working Group or Technical Advisory Group meeting, and any new drafts, to the IEEE Standards Secretariat.
3. Prepare or update a list of Working Group or Technical Advisory Group papers, drafts, minutes, etc. which may be of interest to outside people who follow the progress of the work. Send the list and the materials to the IEEE Standards Secretariat. (Administered by the LMSC Executive Secretary)
4. Sponsor ballots will be conducted by the IEEE Standards Secretariat. (Two response ballots with a copy to the Standards Secretariat and a copy to the Working Group Chair)

## 21. PROCEDURE FOR CONDITIONAL APPROVAL TO FORWARD A DRAFT STANDARD (Formerly “Procuedure 10”)

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Rationale: This procedure is to be used when approval to forward a draft standard to LMSC letter ballot or to REVCOM is conditional on successful completion of a Working Group or LMSC recirculation ballot, respectively.

Seeking conditional approval is only appropriate when ballot resolution efforts have been substantially completed and the approval ratio is sufficient.

The conditional approval expires at the opening of the next plenary.

Motions requesting conditional approval to forward where the prior ballot has closed shall be accompanied by:

- Date the ballot closed
- Vote tally including Approve, Disapprove and Abstain votes
- Comments that support the remaining disapprove votes and Working Group responses.
- Schedule for confirmation ballot and resolution meeting.

In the vote tally, Approve votes (and Abstain votes) include those votes that were initially Disapprove where the voter has accepted the resolution of the voter's comments and changed the vote to Approve (or Abstain). Disapprove votes include only those votes where some comment resolutions have not been accepted by the voter and the voter continues to disapprove. Where a voter has accepted some comment resolutions and rejected others, only the comments of which the voter has not accepted resolution should be presented.

When conditional forwarding to LMSC ballot has been approved, the conditions shall be met before initiating LMSC ballot. When conditional forwarding to REVCOM has been approved, the submittal may be forwarded to REVCOM before the conditions have been fulfilled in order to meet the submittal requirements for the next REVCOM meeting. However, the submittal shall be withdrawn from the REVCOM agenda if the conditions have not been met one week before the REVCOM meeting.

Conditions:

1. The ballot cover letter shall include the following statement: "This ballot is being conducted under the procedure for conditional approval of the LMSC Policies and Procedures (add the exact reference and the current URL of the LMSC Policies and Procedures)."
2. Confirmation ballot is completed. Generally, the confirmation ballot and resolution should occur in accordance with the schedule presented at the time of conditional approval.
3. After resolution of the confirmation ballot is completed, the approval percentage is at least 75% and there are no new DISAPPROVE votes.
4. No technical changes, as determined by the Working Group Chair, were made as a result of the confirmation ballot.
5. No new valid DISAPPROVE comments on new issues that are not resolved to the satisfaction of the submitter from existing DISAPPROVE voters.
6. If the Working Group Chair determines that there is a new invalid DISAPPROVE comment or vote, the Working Group Chair shall promptly provide details to the EC.
7. The Working Group Chair shall immediately report the results of the ballot to the EC including: the date the ballot closed, vote tally and comments associated with any remaining

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disapproves (valid and invalid), the Working Group responses and the rationale for ruling any vote invalid.

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(1) "Equivalent" refers to some identifiable method of tallying the votes and addressing the comments.

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outline the orderly transaction of business of this committee. For the development of standards, openness and due process must apply, which means that any individual with a direct and material interest

has a right to participate by:

- a) expressing a position and its basis,
- b) having that position considered, and
- c) appealing if adversely affected.

Due process allows for equity and fair play. In addition to openness, due process requires balance, i.e., the standards development process should have a balance of interests and shall not be dominated by any single interest category.

**Motion: To approve the proposed P&P revision titled “Compliance with IEEE-SA and CS Governance” as described in the document titled: draft\_041114 LMSC\_PandP\_changes\_for\_SAandCS\_Conformance.doc**

**Moved: Sherman/Jeffree**

**Results: 14/0/0 Passes**

10.19 MI Ballot "P&P Revision Process" P&P change

- Sherman

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04:38 PM

**Proposed IEEE 802 LMSC Policy and Procedure Revision Ballot  
on  
LMSC P&P Revision Process**

**From:** Matthew Sherman, LMSC Vice Chair

**To:** LMSC Executive Committee

**Date:** 1/30/2005

**Duration:** 30 Days

**Purpose:** Clarify and simplify the current P&P Revision Process

**Rationale for proposed change:**

Numerous issues have been raised with our current P&P Revision Process including:

- Who votes on approving a revision and how the votes are counted
- What process is followed for proposals assigned to further study
- What editorial discretion is allowed without a revision ballot

This ballot addresses those issues.

**Proposed Change:**

Revise the LMSC P&P according to the following revised text (based on the July 04 P&P revision 1):

**7.**

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**7.1**

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**7.1.6 Revision of the LMSC Policies and Procedures (P&P)**

These P&P may be changed as described in this section.

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**7.1.6.1 Initiation of Proposed P&P Revisions**

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1. Proposed changes shall be in written form and include:
  - a) The purpose, objective, or problem the proposed change is intended to address.
  - b) The specific text of the proposed change and the rationale for the chosen text.

2. Proposed changes may be created by:

- a) Any working group or technical advisory group. A proposal shall require the affirmative vote of at least three fourths of the members present when the vote is taken, quorum requirements shall be as specified in subclause **Error! Reference source not found. Error! Reference source not found.**
- b) Any Executive Committee Member

Writers of proposed changes are encouraged to seek the advice of experienced members of the EC to help form the wording in a manner appropriate for and consistent with these [P&P](#).

**7.1.6.2 Executive Committee Action on Proposed Changes to [these P&P](#)**

The proposed [P&P revision](#) shall be presented at an Executive Committee meeting in conjunction with a Plenary Session. Approval for Distribution and Executive Committee Ballot shall require the affirmative vote of at least two thirds of Committee members with voting rights and will result in the distribution of the proposal and an Executive Committee electronic ballot on the [P&P revision](#).

If Approval for Distribution and Executive Committee Ballot is not achieved, [the proposed revision is rejected, and may not be considered again until a future session.](#)

**7.1.6.3 Distribution and Executive Committee Ballot**

Executive Committee ballots on [P&P revisions](#) shall be at least 30 days in duration and shall close at least 30 days before the opening of the next Plenary session (to allow time for comment resolution). Distribution of ballots on [P&P revisions](#) to the LMSC membership shall be accomplished as provided by subclause **Error! Reference source not found.**

**7.1.6.4 LMSC Approval**

After distribution of a proposed [P&P Revision](#) and an Executive Committee electronic ballot has been conducted, the Executive Committee member designated in accordance with subclause **Error! Reference source not found.** shall tabulate the ballot results, attempt to resolve the comments, and present the comments and proposed resolution at an Executive Committee meeting in conjunction with a Plenary Session.

LMSC approval of the revised text of the proposed [P&P revision](#) shall require the affirmative vote of at least two thirds of all Executive Committee members with voting rights. LMSC approval will result in the change becoming effective at the end of Plenary Session during which approval is voted. The revised [P&P](#) shall be forwarded to the Computer Society Standards Activities Board (CS SAB) and the Standards Association (SA) Audit Committee (AUDCOM).

If LMSC approval is not achieved, [the proposed revision is rejected, and may not be considered again until a future session. P&P revisions become effective at the end of the plenary session where they are approved. An up to date LMSC P&P should be maintained on the IEEE 802 website.](#)

**7.1.6.5 Editorial discretion**

[In some circumstances minor revisions may be made to the LMSC P&P without a revision ballot. These circumstances include:](#)

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**Deleted:** , a vote to Assign the proposal for study is taken, (see "Assignment of the Proposal to Study"). Assignment for Study shall require the affirmative vote of at least one third of all Executive Committee members with voting rights. If Assignment is not achieved, no further action is taken on the proposal and it is Rejected.

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¶ If the Executive Committee votes to assign a proposal to further study, the Executive Committee Vice Chair or others designated by the LMSC Chair, shall complete appropriate additional study of the proposal and respond to the Executive Committee expediently for its reconsideration for Distribution and Executive Committee Ballot.¶

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All other LMSC P&P revisions must be balloted in accordance with the process defined here.



If the revised Policies and Procedures are known to be in conflict with the CS SAB Policies and Procedures the cover letter shall request formal CS SAB approval of the variance. In the case where the change is in conflict with the Policies and Procedures of CS SAB, the change will be put into effect as stated above but will be withdrawn immediately if rejected by the CS SAB. CS SAB rejection shall be announced to the LMSC Executive Committee by the most expeditious means available (e-mail, FAX, regular mail) and to the LMSC membership at the next Plenary Session.

a vote to assign the proposal for further study and recommendation shall be taken. Assignment shall require the affirmative vote of at least one third of all Executive Committee members with voting rights; otherwise no further action is taken on the proposal.

**Motion: To approve for distribution and executive committee ballot the P&P Revision titled "LMSC P&P Revision Process" as described in the document titled: 802.0-P&P\_Revision\_Process-Proposed\_P&P\_Revision\_ballot.doc**

**Moved: Sherman/Jeffree**

**Result: 12/0/1 Passes**

10.20 MI Ballot "EC Voting" P&P change

- Sherman

5

04:50 PM

**Proposed IEEE 802 LMSC Policy and Procedure Revision Ballot  
on  
EC Voting Procedures**

**From:** Matthew Sherman, LMSC Vice Chair

**To:** LMSC Executive Committee

**Date:** 1/30/2005

**Duration:** 30 Days

**Purpose:** Clarify EC Voting (and balloting) procedures

**Rationale for proposed change:**

Numerous issues have been raised with our current EC Voting procedures including:

- Are abstentions counted in the denominator when tallying votes
- Must the full EC membership be reflected in the denominator of electronic ballots
- Can EC voting privileges be suspended for cause
- Can the time period for an electronic ballot be extended
- How are votes tallied for P&P revision ballots

This ballot addresses those issues.

**Proposed Change:**

Revise the LMSC P&P according to the following revised text (based on the July 04 P&P revision 1):

**7.**

.  
. .

**7.1**

.  
. .

**7.1.4 Voting Rules**

Voting in the EC is by simple majority majority except as otherwise noted in these P&P. The Chair only votes if his vote can change the outcome of a vote. A quorum is at least one-half of the EC voting members. The LMSC Chair may suspend voting rights of an EC member with cause.

**Deleted:** Executive Committee

**Deleted:** to break ties

**Deleted:** Executive Committee

**7.1.4.1 Voting Guidance**

It is expected that EC members will vote as both professionals and as individual experts, except under the Directed Position provisions of this P&P, and **not** as a member of any affiliate block (organization, alliance, company, consortium, special interest group, etc.). If substantive evidence is presented to the LMSC Chair that this provision is violated, the EC will meet to consider what, if any, action to take on the presented evidence. Such action may include any action up to and including a recommendation for removal from office.

Deleted: LMSC Executive Committee

Deleted: LMSC Executive Committee

#### 7.1.4.2 Voting Between Plenary Meetings

At times, it may become necessary for the EC to render a decision that cannot be made prior to the close of one plenary but must be made prior to the following plenary. Such decisions shall be made using electronic balloting. Provision shall be made for the LMSC membership to observe and comment on EC electronic ballots. All comments from those who are not members of the EC shall be considered. Commenters who are not members of the EC are urged to seek an EC voting member (normally their Working Group or Technical Advisory Group Chair) to include the viewpoint of the commenter in their vote.

Deleted: Executive Committee

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##### 7.1.4.2.1 Electronic Balloting

The Chair, or an EC member designated by the Chair (usually a Vice Chair), shall determine the duration of the ballot, issue the ballot by e-mail and tally the votes after the ballot is closed. EC voting members shall return their vote and comments by e-mail.

Deleted: Executive Committee

Deleted: Executive Committee

The minimum duration of an electronic ballot shall be 10 days unless the matter is urgent and requires resolution in less time. Maximum advance notice is encouraged for all ballots on urgent matters. The tally of votes shall not be made until at least 24 hours after the close of the ballot to allow time for delivery of the e-mail votes.

The affirmative vote of a majority of all members of the EC with voting rights is required for an electronic ballot to pass except when specified otherwise by these P&P. If at the end of the ballot insufficient votes have been received to pass the ballot, the ballot fails. It may not be extended.

Deleted: Executive Committee

**Motion: To approve for distribution and executive committee ballot the P&P Revision titled "EC Voting Procedures" as described in the document titled: 802.0-EC\_Voting\_Rules-Proposed\_P&P\_Revision\_ballot\_r1.doc**

**Moved: Sherman/Jeffree**  
**Result: 13/0/0**

10.21 MI Ballot "WG Voting" P&P change

- Sherman

5

04:50 PM

**Proposed IEEE 802 LMSC Policy and Procedure Revision Ballot  
on  
WG Voting Procedures**

**From:** Matthew Sherman, LMSC Vice Chair

**To:** LMSC Executive Committee

**Date:** 1/30/2005

**Duration:** 30 Days

**Purpose:** Clarify WG Voting (and balloting) procedures

**Rationale for proposed change:**

Numerous issues have been raised with our current WG Voting procedures including:

- Are abstentions counted in the denominator when tallying votes
- Must the full WG membership be reflected in the denominator of electronic ballots
- Numerical vote tallies are required for all matters brought before the EC
- Level of approval required for procedural votes
- Directed Positions for Procedural Issues

This ballot addresses those issues.

**Proposed Change:**

Revise the LMSC P&P according to the following revised text (based on the July 04 P&P revision 1):

**7.**

.  
. .

**7.2**

.

**7.2.4 .**

.

**7.2.4.2 Voting**

There are two types of votes in the Working Group. These are votes at meetings and votes by letter ballot.

**7.2.4.2.1 Voting at Meeting**

A vote is carried by a 75% approval of those members voting “Approve” and “Do Not Approve”.  
Procedural matters put by the Chair to the group may be decided by a majority vote. No quorum is required at meetings held in conjunction with the Plenary session since the Plenary session time and place is established well in advance. A quorum is required at other Working Group meetings. The Working Group Chair may vote at meetings. A quorum is at least one-half of the Working Group members. Numerical vote tallies must be taken on all matters that will be brought before the EC.

## 9.

### **9.3 PROCEDURE FOR ESTABLISHING A DIRECTED POSITION (Formerly “Procedure 9”)**

The Working Group Chair, however, has the freedom to express other views in an attempt to persuade members of the Executive Committee to consider them, however, such views shall be identified as distinct from and not the formal Working Group Directed Position. The Working Group Chair is required to disclose to the Working Group his/her intent to offer a position contrary to a Directed Position. When presenting a Directed Position to the Executive Committee, the Working Group Chair is obligated to present and support the Working Group’s Directed Position Motion with voting results, along with pros and cons behind the motion. Directed Positions may be formed by the Working Group on both technical and procedural matters, but always by a 75% or greater vote.

**Motion: To approve for distribution and executive committee ballot the P&P Revision titled "EC Voting Procedures" as described in the document titled: 802.0-WG\_Voting\_Rules-Proposed\_P&P\_Revision\_ballot.doc**  
**Moved: Sherman/Jeffree**  
**Result: 13/0/1 Passes**

10.22 MI Ballot "EC Membership" P&P change

- Sherman

5

04:56 PM



**Proposed IEEE 802 LMSC Policy and Procedure Revision Ballot  
on  
EC Membership & Meeting Policies and Procedures**

**From:** Matthew Sherman, LMSC Vice Chair

**To:** LMSC Executive Committee

**Date:** 1/30/2005

**Duration:** 30 Days

**Purpose:** Clarify EC Membership and Meeting policies and procedures

**Rationale for proposed change:**

Numerous issues have been raised with our current EC Membership and Meeting Policies and Procedures including:

- EC Meetings between Plenaries (telecoms, etc.)
- Terms of appointed EC positions and removal if new EC chair
- Procedures for elections and election appeals
- Member Emeritus position

This ballot addresses those issues.

**Proposed Change:**

**To be provided!**

**Motion: To approve for distribution and executive committee ballot the P&P Revision titled "EC Membership & Meeting Policies and Procedures" as described in the document titled: 802.0-EC\_Membership\_&\_Meetings-Proposed\_P&P\_Revision\_ballot\_r1.doc**

**Moved: Sherman/Jeffree  
Result: 14/0/0**

10.23 MI Ballot "WG Membership" P&P change - Sherman 5 05:00 PM

This item withdrawn.

10.24			-			05:05 PM
10.25			-			05:05 PM
10.26			-			05:05 PM
10.27			-			05:05 PM
10.28			-			05:05 PM
10.29			-			05:05 PM
10.30			-			05:05 PM
10.31			-			05:05 PM
10.32			-			05:05 PM
10.33			-			05:05 PM
10.34			-			05:05 PM
11.00			-			05:05 PM
11.01	II	Viewpoint regarding plenaries	-	Kerry	1	05:00 PM

Agenda#:

Date:

Time:

# IEEE 802 LMSC

802.11 WG StrawPoll

Subject: IEEE 802 Plenary Tutorials

That the IEEE 802 limit the Tutorials of interest to 802.11 to one evening meeting on Monday. Noting that 802.11 will keep that evening slot open.

Results: YES: 171

NO: 47

Agenda#:

Date:

Time:

# IEEE 802 LMSC

802.11 WG StrawPoll

Subject: IEEE 802 Plenary Tutorials

That the IEEE 802 remove the 802 Plenary session  
“social event” on Wednesday evening.

Results: YES: 109

NO: 92

Agenda#:

Date:

Time:

# IEEE 802 LMSC

802.11 WG StrawPoll

Subject: IEEE 802 Plenary Tutorials

That the IEEE 802 create a Thursday evening Tutorial meeting in lieu of a Monday or Tuesday evening event.

Results: YES: 125

NO: 25

The chair solicited interest from the EC to address the structure of the master meeting schedule. Several members volunteered to participate. Stuart will coordinate this effort.

**11.02 II Interchange with other WGs - Kerry 1 05:06 PM**

Stuart presented Tony Jeffree an IEEE award for his participation in the development of 802.11i.

**11.03 II Responsibilities and guidelines for interim meeting hosts - Hawkins 10 05:07 PM**



# So you want to host an Interim...

Guidelines for session hosts

John Hawkins



# IEEE 802 P&P

- LMSC policies and procedures:
  - define the procedures for running interim sessions as well as the role and responsibilities of a host
  - Section 7.2.6, *WG Financial Operations*.
  - Section 8.2, *Interim Sessions*.
- These are required reading for prospective hosts





# About Hosts

- “Each interim session and joint interim session shall have a host” (8.2.1)
- Host is responsible for:
  - financing
  - logistical planning
  - preparation for and execution of the session
- A host may be:
  - LMSC
  - a WG operating with treasury
  - a group of WGs operating with joint treasury
  - a non-LMSC entity
  - or combinations thereof (joint hosting)
- Joint hosting is convenient, but can be tricky:
  - “Each of the entities co-hosting an interim session (Co-hosts) shall have approved a written agreement stating the responsibilities and liabilities of each Co-host and the disposition of any surplus funds before any financial commitments are made for the co-hosted session.”



# Host Responsibilities

1. The Host is solely responsible for the finances and the logistical planning, preparation for and execution of the session.
2. The Host will consult and coordinate with the Chair(s) of the WG(s)/TAG(s) or WG/TAG sub group(s) participating in the session on the financial and logistical planning, preparation for and execution of the session.
3. The Host is solely responsible for all contracts and agreements that are for goods and/or services exclusively for the session.
4. The Host is solely responsible for collecting the fees, if any, from attendees and for paying the session expenses including any penalties.
5. The Host is solely responsible for any session deficit and the disposition of any session surplus funds.

**11.04 II 802.3 Change in Officers - Grow 1 05:10 PM**

Bob Grow reported that 802.3 confirmed the following officers: Steve Carlson as Executive Secretary and Wael Diab as Recording Secretary.

**11.05 II Update on 802.15 mmWave PAR progress - Heile 5 05:12 PM**

The WG completed a PAR at this session and asked if the EC would entertain a letter ballot to forward this PAR. The chair recommended that it be held until the next (March 2005) plenary.

**11.06 II Liaison response to MEF - Jeffree 5 05:13 PM**

# MOTION

- 802.1 approves the attached liaison contribution to the MEF
- Proposed bottorff second wright
- For 19 against 0 abstain 0

**Source:** IEEE 802.1

**Title:** *Response to Progress on Ethernet related recommendations*

**COMMUNICATION STATEMENT To:**

MEF

**Approval:**

November 2004 meeting, San Antonio

**Contacts:**

Tony Jeffree, 802.1 Chair. Email: [tony@jeffree.co.uk](mailto:tony@jeffree.co.uk)

Mick Seaman, Interworking, TF Chair. Email: [mick\\_seaman@ieee.org](mailto:mick_seaman@ieee.org)

### ***Response***

At our November 2004 meeting, the MEF liaison to IEEE 802.1 was brought to our attention. We would like to take the opportunity to provide feedback on your current recommendations.

As you have correctly indicated four multicast addresses are available which are blocked by all 802.1D, 802.1Q, and 802.1ad bridges. These addresses are:

01-80-C2-00-00-06

01-80-C2-00-00-07

01-80-C2-00-00-09

01-80-C2-00-00-0A

One of these addresses would be the correct address to use for your E-LMI protocol. None of these addresses are available for exclusive use by protocols outside 802.1, however as you suggested non-exclusive use based on the MEF using a unique EtherType for the E-LMI protocol is acceptable.

The IEEE 802.1 committee does not assign the use to an address until an approved protocol exists which will use the address. On review we believe the correct address for your use would be 01-80-C2-00-00-07. At such a time as your protocol is an approved specification of the MEF we would be willing to approve an address for your use.

Thank you for your request. We look forward to assisting you further as your specification moves to approval.

### ***Attachments***

[1] IEEE P802.1ad Draft 3.0



The background features a large, light gray diamond-shaped logo. Inside the diamond is a white stylized graphic consisting of a vertical arrow pointing upwards, with two curved arrows on either side that appear to be part of a circular or orbital path.

# **IEEE 802 Online Training Update**

**IEEE 802 LAN/MAN Standards  
Committee (LMSC) EC meeting  
19 November 2004** 

# 802 Online Training: Getting Back on Track

- Pat Thaler/Andy Ickowicz to move ahead with project
  - Re-establish contact with vendors
  - Augment content intended for first module
  - Determine what SA-Staff resources will be needed as project progresses/grows



# 802 Online Training: Setting New Milestones

- Final vendor selection by end of January 2005
- Content delivery to vendor by end of January 2005
- Module testing in March/April 2005
- First module complete by 1 May 2005

Paul thanked Pat Thaler for stepping in and picking this item up and getting it back on track.

A question was raised about how quickly each module may become obsolete, given the slate of rule changes contemplated. Pat responded that a generic IEEE module is the first one on tap. It will not be affected by our P&P changes. Subsequent modules may be impacted, but the contemplated changes would show up in an “802 process 102” module rather than an “802 process 101” module.

The background features a large, light gray watermark of the IEEE logo, which consists of a diamond shape containing a stylized figure of a person with arms raised, surrounded by a circular path.

# IEEE 802 Task Force Meeting Update

IEEE 802 LAN/MAN Standards  
Committee (LMSC) EC meeting  
19 November 2004 

# Agenda

- 802 Online Training
- 802 P&P
- Entity Balloting: Next Steps
- Complimentary Copies
- myBallot

# 802 Online Training

- Pat Thaler to work with Andy Ickowicz on the project
- Goal to re-establish schedule/milestones by end of 802 Plenary
- Revisit requirements document, make changes if necessary
- Re-establish contact with vendors who develop training modules
- Review and, if necessary, improve upon content to be provided for first training module (IEEE-SA Standards Development Process)

## 802 P&P

- SA-Staff goal is to complete item 3.1 of Statement of Work (familiarization with current 802 P&P) by end of 2004
- On track

# Entity Balloting: Next Steps

- Further discussion between 802 & IEEE SA-Staff stemming from Monday tutorial
- Mat Sherman to look at IEEE-SA model P&P and examine content on entity balloting; will produce “pros & cons” analysis

# Complimentary Copies

- Proposed as part of IEEE-SASB AdCom agenda for December 2004: "PDF-Only" comp. copy policy
- Discussion of alternative options to print comp. copies
- Action Item: Karen Kenney, Geoff Thompson to collaborate on suggestions for suitable alternative recognition



# myBallot

- Issues identified during Beta Test-- relayed to IEEE-SA Balloting Manager for resolution
- Further suggestions for improvement from 802 leadership
- Beta testers (IEEE P802.3am) will relay experience to EC

An opinion was expressed that the original assignment of the P&P changes for alignment of model P&P for entity balloting by the task force to persons outside the EC was “shocking”, making it appear as if some decision had been made on this issue. The opinion was further expressed that this work should be assigned to someone who will not be able to “get to it”.

Paul asked if anyone on the EC would volunteer to gain an understanding of the work at the SA on entity balloting. Mat Sherman volunteered.

One member asked that a motion be taken to not consider entity balloting. An objection was raised to spending any money on IEEE staff to work on entity balloting for 802, until the EC has made a decision.

**11.09 II Names in Front Matter status update - Nikolich 5 05:38 PM**

Paul reported that a telecon was held with Susan Tatinger, Yvette Ho Sang and a number of EC members to discuss the inclusion of names in the front matter of standards, including revisions. The SA proposal is to not allow the inclusion of historical names in revisions of a standard.

Karen Kenney took an action item to go to SA and explain how vigorously we oppose this concept and to bring it up at the January Standards Board meeting in New York City.

Roger raised an issue on the removal of names of members credited with important contributions.

**11.10 II Liaison to China - Nikolich 5 05:43 PM**

Paul reported that 24 people attended a meeting to discuss the issue related to the China proposal to JTC1 SC6 WG1.

- ISO/IEC JTC1 SC6 WG1 planning meeting 3-4pm 16 Nov
- Recap of last week's JTC1 meeting (BruceK)
- Issues:
  - 802 needs to become more active in JTC1
  - 802 needs to better understand what putting STDs into JTC1 means (why use JTC1?)
  - 802 needs to work more closely with China to demonstrate the value of doing technical work within 802
  - 802 to improve receptiveness of China input
  - How can IEEE SA help the process?
  - Project editor status for 802.3(GOT) and 802.11(VHayes)
- Actions
  - 802 to appoint an SC6 liaison (Jesse Walker) and US TAG representative (open—WG members to solicit interest, Nortel, Intel, AMD, HP reps to check with their companies)
    - 802 Chair and 802.11 WG Chair to contact MII
  - 802.3 and 802.11 WG chairs to poll their groups on the value of JTC1
  - Roger Marks to act as 802 China 'ambassador'
  - Jim Carlo SA President to examine how to make US DoS aware of Visa problem
  - Nikolich to obtain pro-forma invitation letter from DeCourcelle
  - GOT will remain 802.3 project editor, Kerry to become 802.11 project editor

# attendees

- Paul Nikolich
- Karen Kenney
- Bruce Kraemer
- Jesse Walker
- Steve Mills
- Terry Cole
- Jim Carlo
- Henry Ptasinski
- Roger Marks
- Bob Grow
- Haixiang He
- Stuart Kerry
- Steve Shellhammer
- Jessie Tiang
- Geoff Thompson
- Sue Vogel
- Clint Chaplin
- Bill Carney
- Andy Ickowicz
- Emily Qi
- Kapil Sood
- Dororthy Stanly
- Nancy Cam-Winget
- Don Wright

# IEEE 802 – JTC1/SC6 Overview

Bruce Kraemer

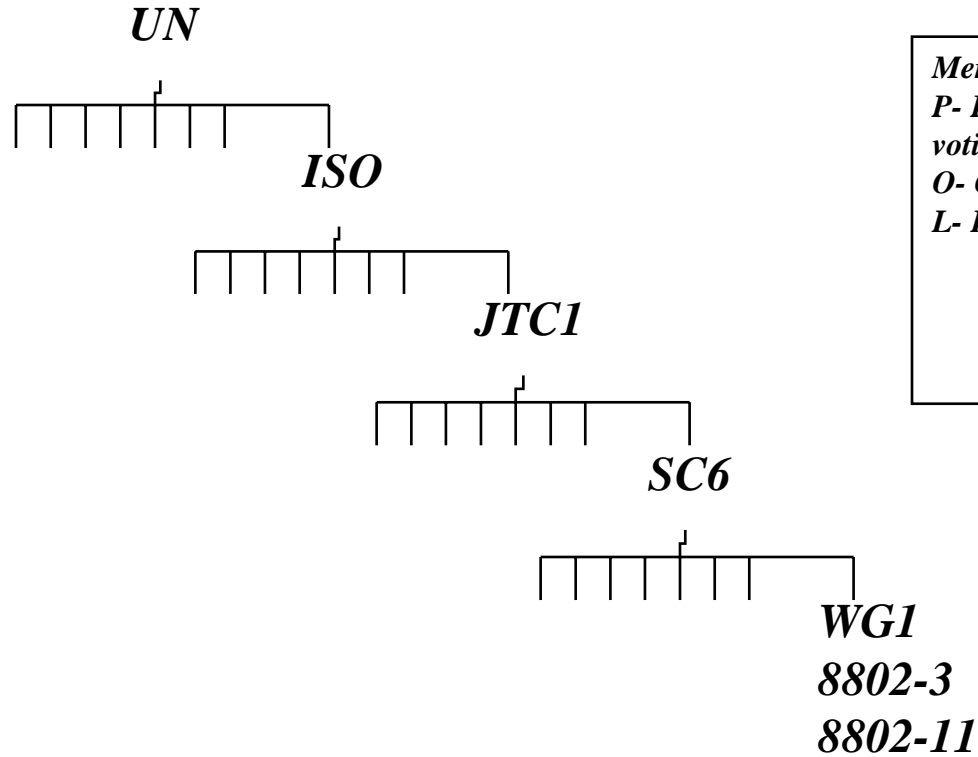
Jesse Walker

Al Petrick

# Background

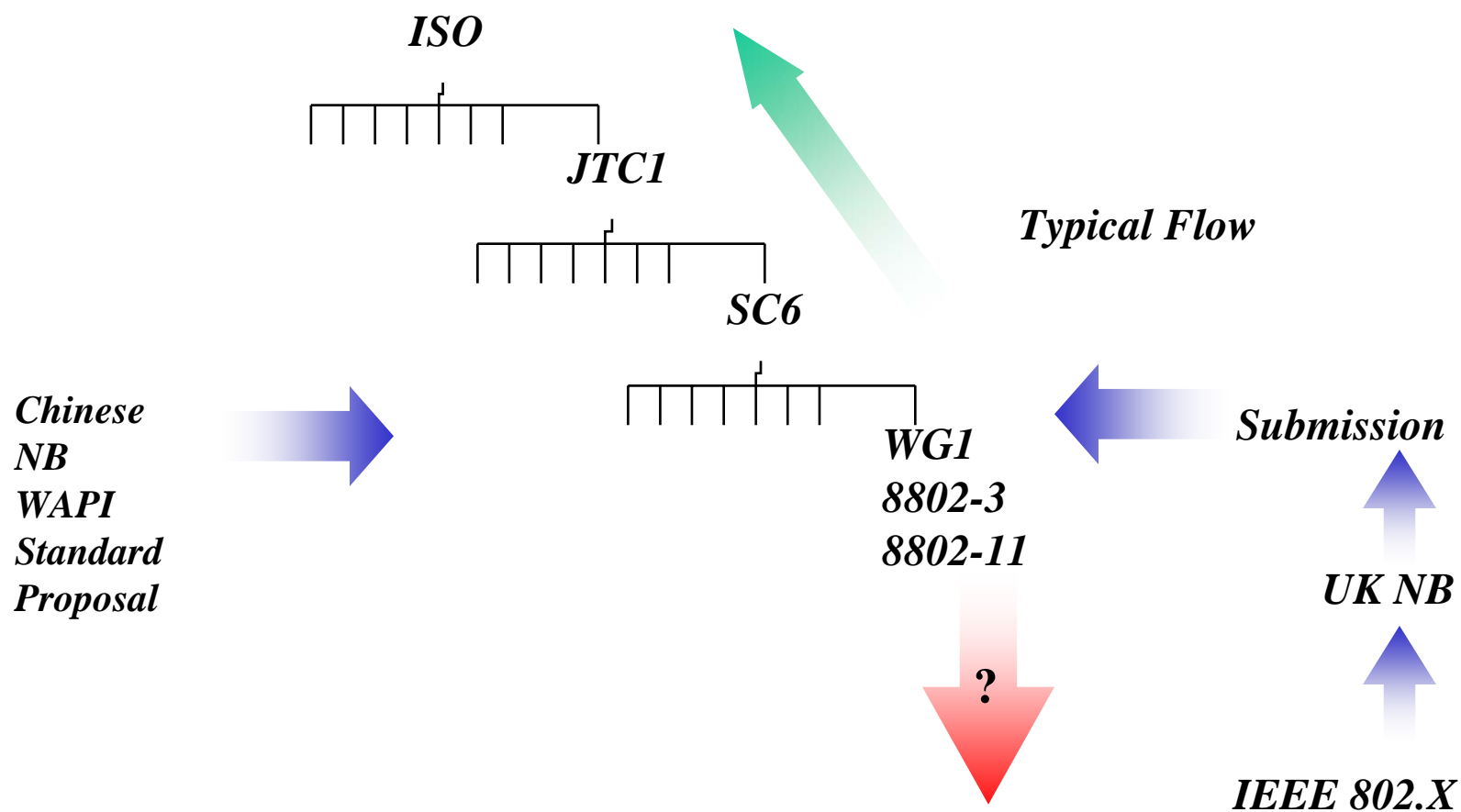
- IEEE 802 submits some standards and amendments to ISO for international approval, e.g. -1, -2, -3, -5, -6, -11
  - 802.3 pieces are known as 8802-3 xxx
  - 802.11 pieces are known as 8802-11 xxx
  - Some are currently in the approval pipeline e.g 802.11i – security amendment
- China has submitted an alternate security mechanism for use with 8802-11-1999 (N7506 also known as WAPI)
- ISO/JTC1/SC6/WG1 meeting held in Orlando week of Nov 8
- There was significant confusion within ISO over the proper procedure to handle this
  - Chinese delegation perceived ISO was fast tracking 11i and blocking WAPI
  - Question over the working relationship with IEEE 802

# ISO Hierarchy



**Membership**  
**P- Participant - National Body Representatives - voting**  
**O- Observer - National Body Representatives**  
**L- Liaison**  
**A- ETSI, ITU,...**  
**B-**  
**C- IEEE 802**

# Unusual Entry Point



*Chinese  
NB  
WAPI  
Standard  
Proposal*

*How to :  
Move work from ISO to IEEE802?  
Guarantee & maintain integrity of WAPI Security?*



**End**

# ISO Flow

*National Body – Requests New Project Work Item in SC6*



*Creation of Standard*



*Fast track Process*



*National Body Submits Previously Created Std*



*ISO Standard Approval Process*

*6 months*

Roger described his responsibility as the 802 “China ambassador”. He said that the key focus is to bring China into the 802 process for developing standards. He would prefer to describe it a “China Liaison”.

A suggestion was made to have a China liaison committee with volunteers from those working groups that desire improved relationships with Chinese standards development organizations.

Roger suggested that an informative letter be sent to Mr. Wen Ku. Roger will draft this and send it to the EC reflector.

11.11 MI P&P -related activities review

- Sherman

5

03:36 PM

This item taken up out of order at 3:36pm.


# LMSC Policy and Procedures Update

## Author:

Matthew Sherman  
1<sup>st</sup> Vice Chair, IEEE 802  
BAE Systems - CINR  
Matthew.Sherman@BAESystems.com

**Date:** November 15<sup>th</sup>, 2004

# Restructuring Process

- Reformat to match Sponsor Model (1 Cycle)
  - Editorial in Nature
- Modify for conformance (1 Cycle)
  - Identify where requirements of SA and CS SAB not met
  - Introduce changes to bring into conformance
- Streamline (1 Cycle)  **YOU ARE HERE**
  - Implement “Less is More”
  - Fix any deficiencies specific to 802
  - Reduce backlog of P&P revisions
- Entire process to take roughly 1 year
  - May extend 4 months for streamlining

# LMSC P&P Maintenance Activities

- In process ballots (To be voted for approval Today)
  - Coexistence (Steve Shellhammer)
  - IEEE SA & CS Governance Conformance (Matthew Sherman)
- Pending ballots (To be voted for balloting today)
  - Streamlining (Matthew Sherman)
    - P&P Revision Process
    - Voting
      - EC Voting
      - WG Voting
    - Membership / Meetings
      - EC Membership / Meetings
      - WG Membership / Meetings (Deferred to next Cycle)
- Pending ballots for next Cycle
  - Streamlining continued
    - LMSC Procedures (Process)
    - LMSC Organization
    - Miscellaneous

# Current P&P Issues list

Rules change Issues 0411r3.txt

# P&P Revision Process

## (And how to avoid future backlogs)

- Any EC Member or WG can bring forward a Rev
  - If it matters to you do something about it!
  - If not then it wasn't that important anyway
- Particularly WG Chairs have manpower at their disposal
  - Delegate to others the crafting and writing
  - WG Chair introduces revision at EC
- 1<sup>st</sup> Vice Chair will assist in balloting, but not editing and resolution!
  - To large a burden for one person
  - 1<sup>st</sup> Vice Chair will run actual ballots and collect comments
  - 1<sup>st</sup> Vice Chair will provide formats and advice
  - Motioner must provide all documentation and run resolution session
- 1<sup>st</sup> Vice Chair will focus on more strategic P&P issues (and whim of Chair)
  - Entity Balloting
  - Task Group Membership



# A reminder

- To approve a P&P revision ballot for distribution
  - 2/3 of all EC Members with voting rights
- To approve a balloted P&P revision the following guidance was received from SA
  - As written our rules (and SA's would support) say 2/3's of members voting Yes or No
  - Abstains do not count
  - On 4/9/04 the EC chair made these clarifications formal
- A P&P revision is being proposed to make the two voting requirements the same

# How to increase Ballot Resolution Participation

- Some WG Chairs do not participate in Ballot Resolution meetings
  - Conflicts with WG activities
- Sundays are becoming crowded
- Move Ballot resolution to Telecom format
  - Am initiating P&P changes to permit this

**Motion on Telecoms for LMSC P&P Revision Ballot Resolution Session**

**Motion: to allow comment resolution meetings on LMSC P&P Revision ballots by telecon with 30 day notice on EC Reflectors**  
**Moved: Sherman/Jeffree**

**Result: 15/0/0 Passes**

11.12 II Network Services Update

- IDEAL

5

05:46 PM

# I.D.E.A.L. OVERVIEW

## ***Audience:***

Institute of Electrical and Electronics Engineers



**November 14<sup>th</sup> - 19<sup>th</sup>, 2004**  
**San Antonio, TX**

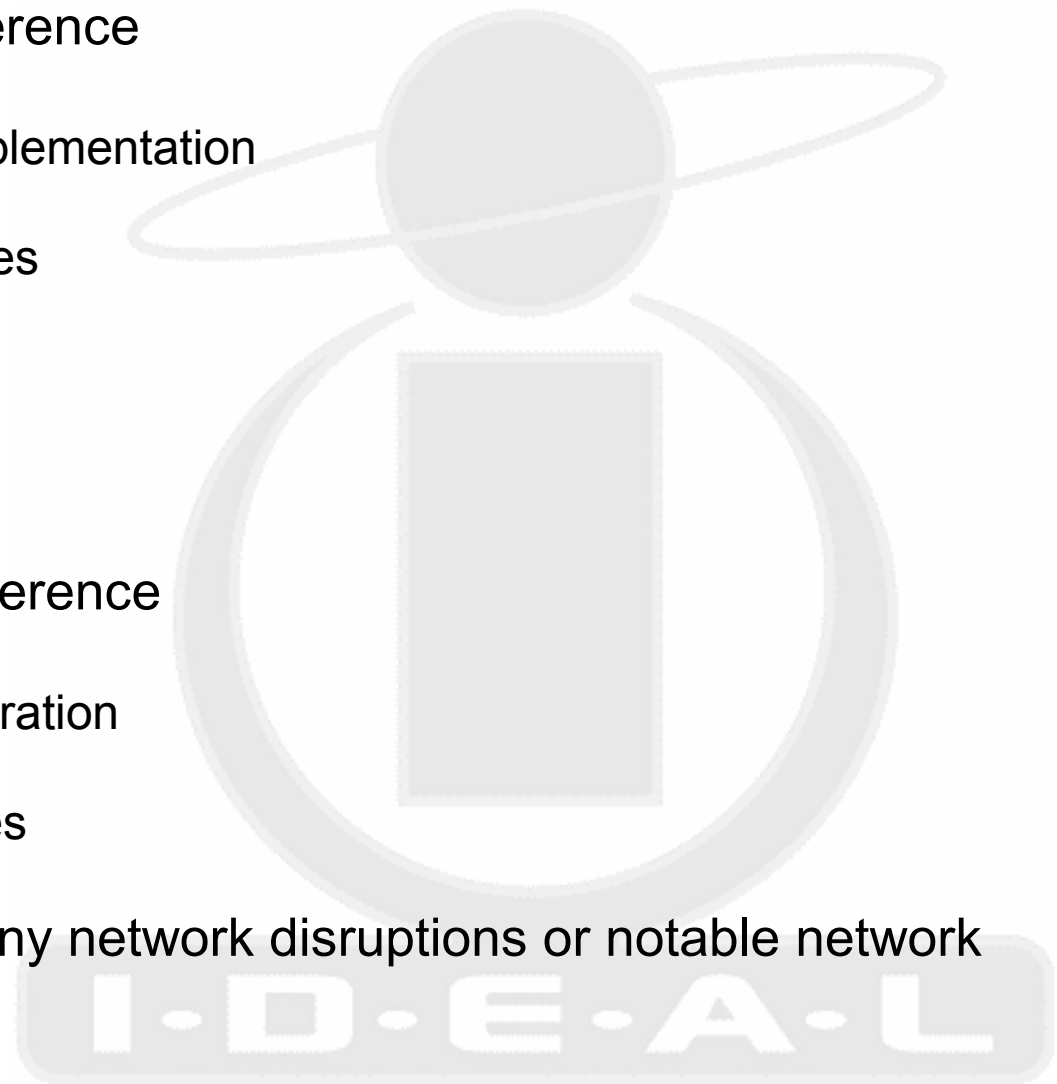
## ***Prepared by:***

**Michael P. Rhing,**  
**Systems Administrator**  
**I.D.E.A.L. Technology Corporation**



# NETWORK PLAN

- Provide network support for conference
  - Network topology design and implementation
  - Management of network resources
  - Facilitate Internet access
  - File and print server access
- Provide end user support for conference
  - Wireless and wired client configuration
  - Diagnose and resolve VPN issues
- Communicate with all members any network disruptions or notable network issues

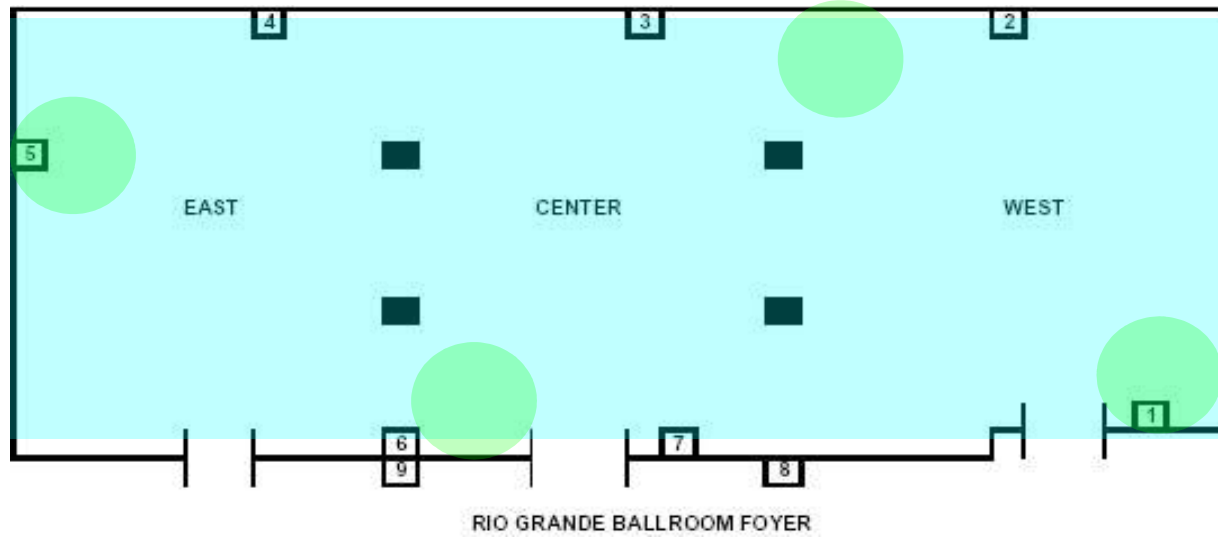


# NETWORK AVAILABILITY

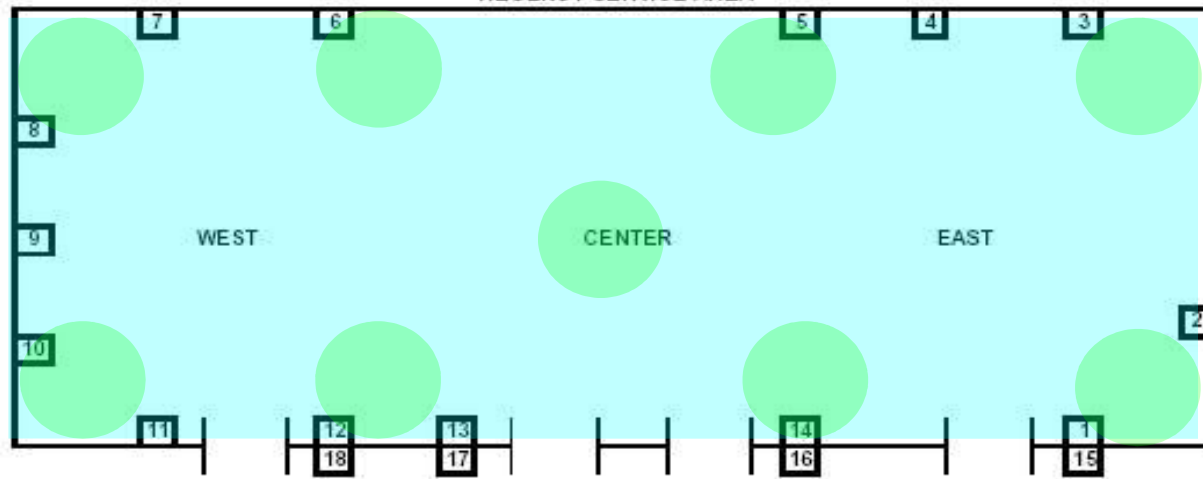
- Equipment inventory and initial NOC configuration by 5:00pm Saturday
- Hyatt Regency hotel Internet access available by 9:30am Sunday
- All facility links up and tested by 6:00pm Sunday
- Deployment of access points and all services completed by 11:30pm Sunday
- All services were active and available on time for conference sessions



# HYATT REGENCY I

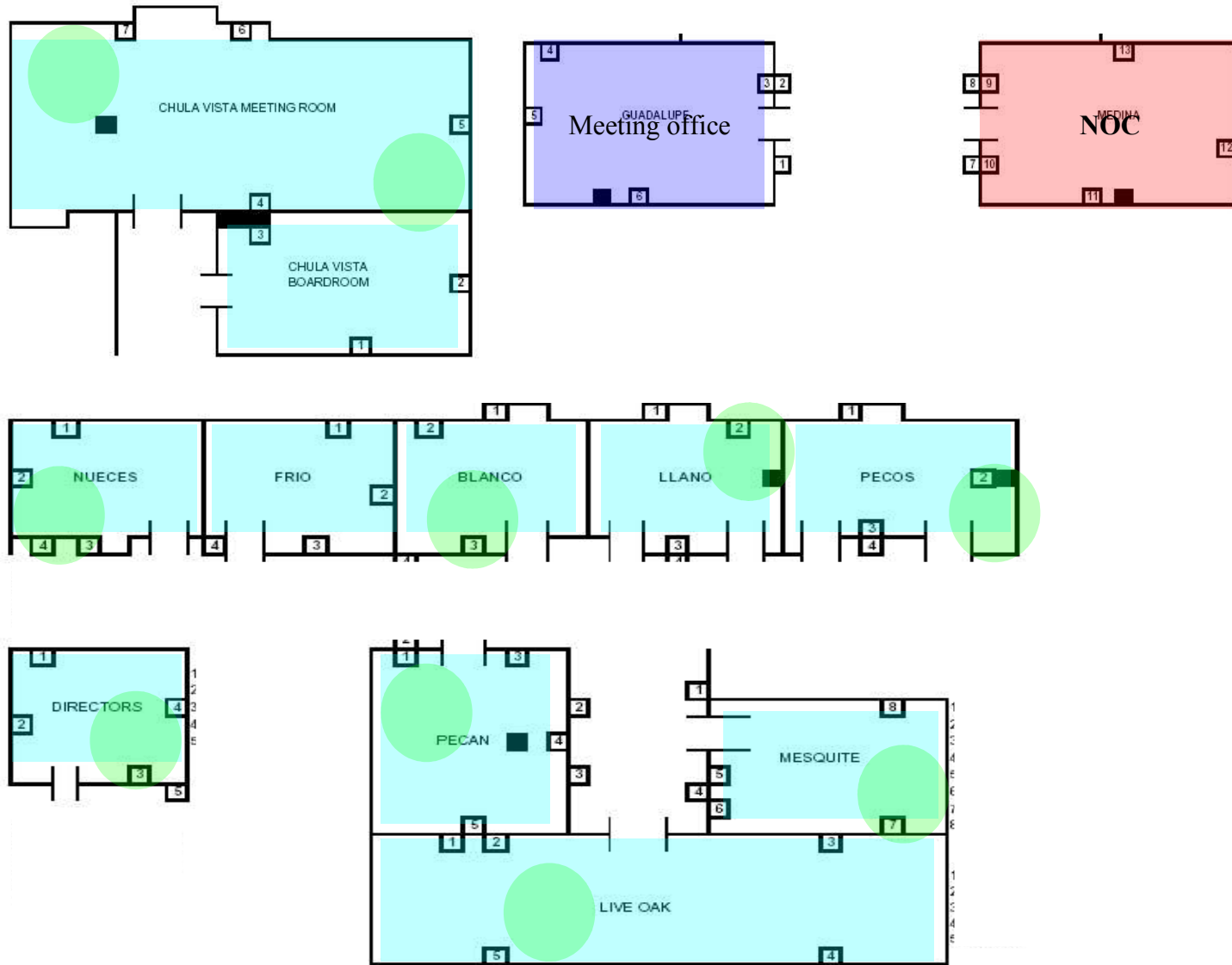


RIO GRANDE BALLROOM FOYER



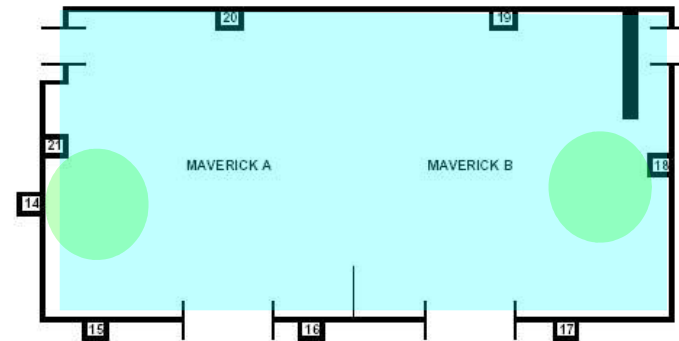
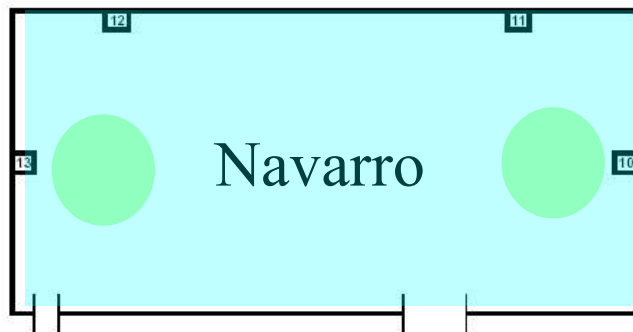
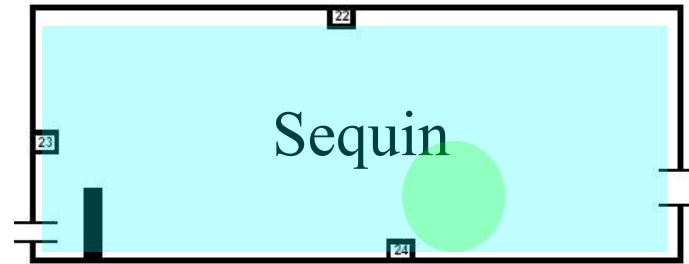
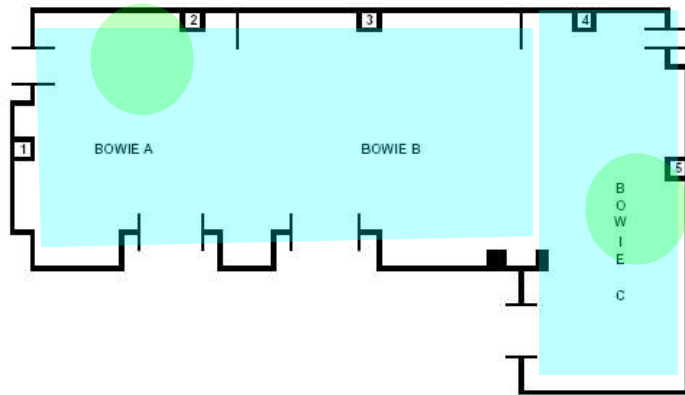
REGENCY BALLROOM FOYER

# HYATT REGENCY I (CONT)

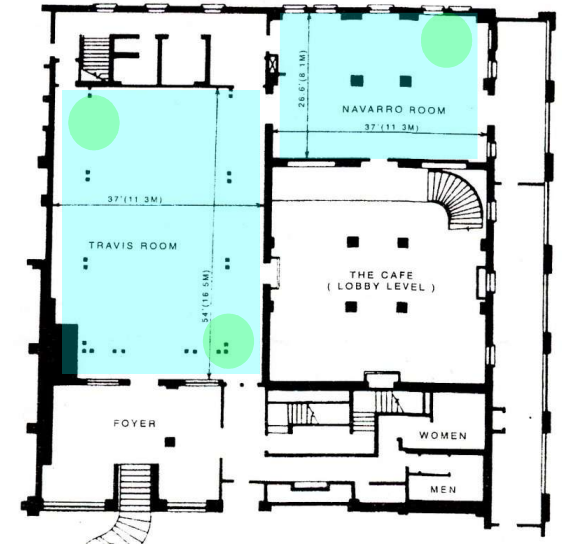
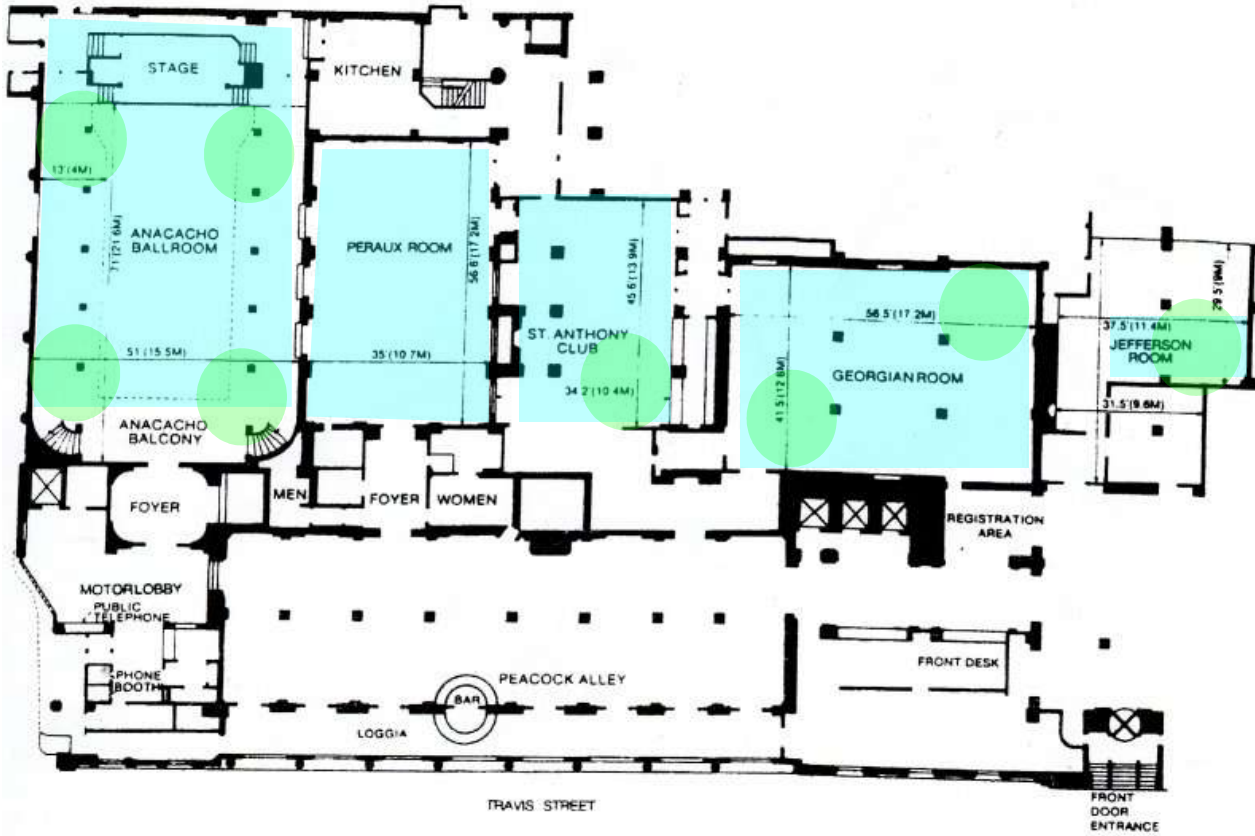




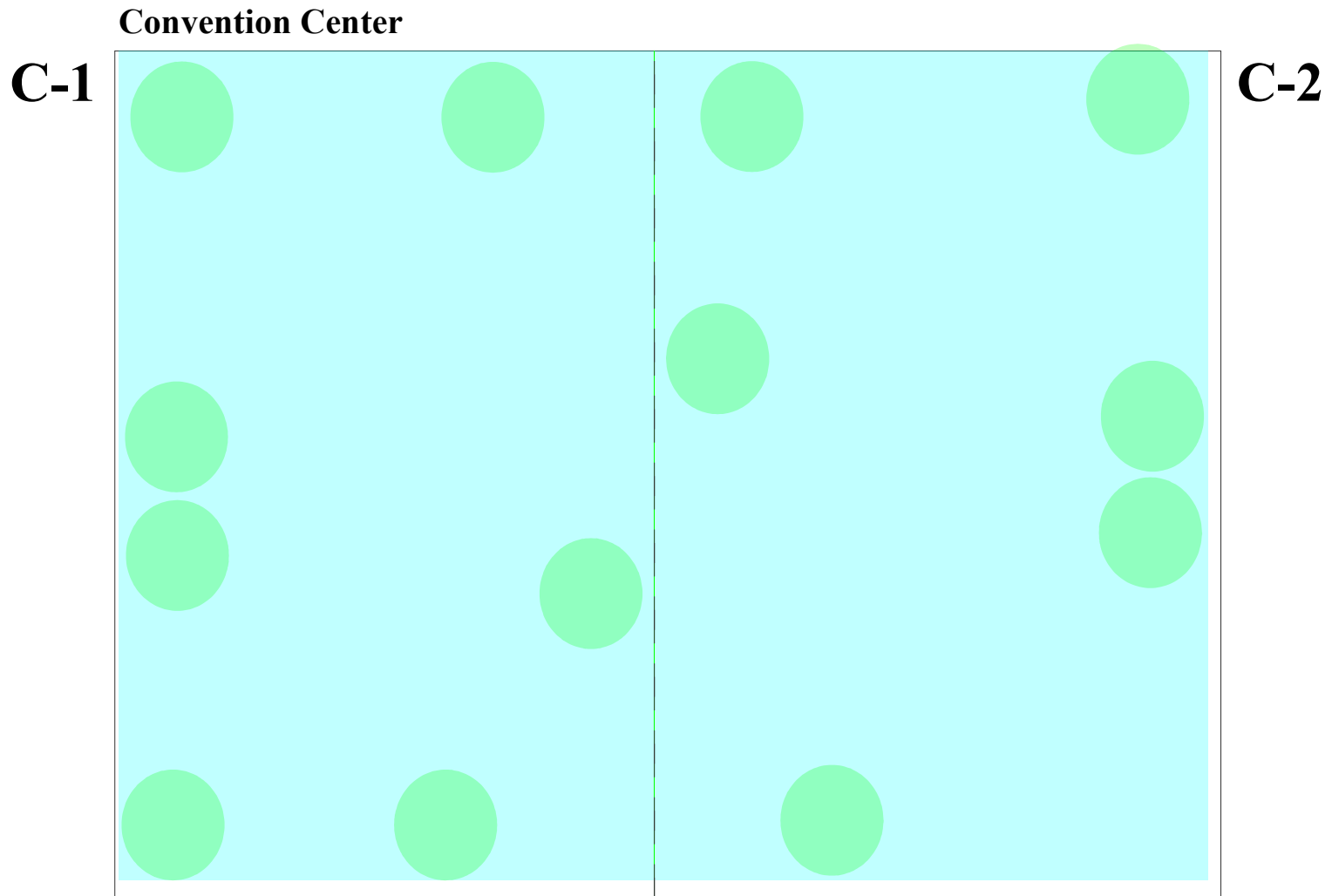
# HYATT REGENCY II



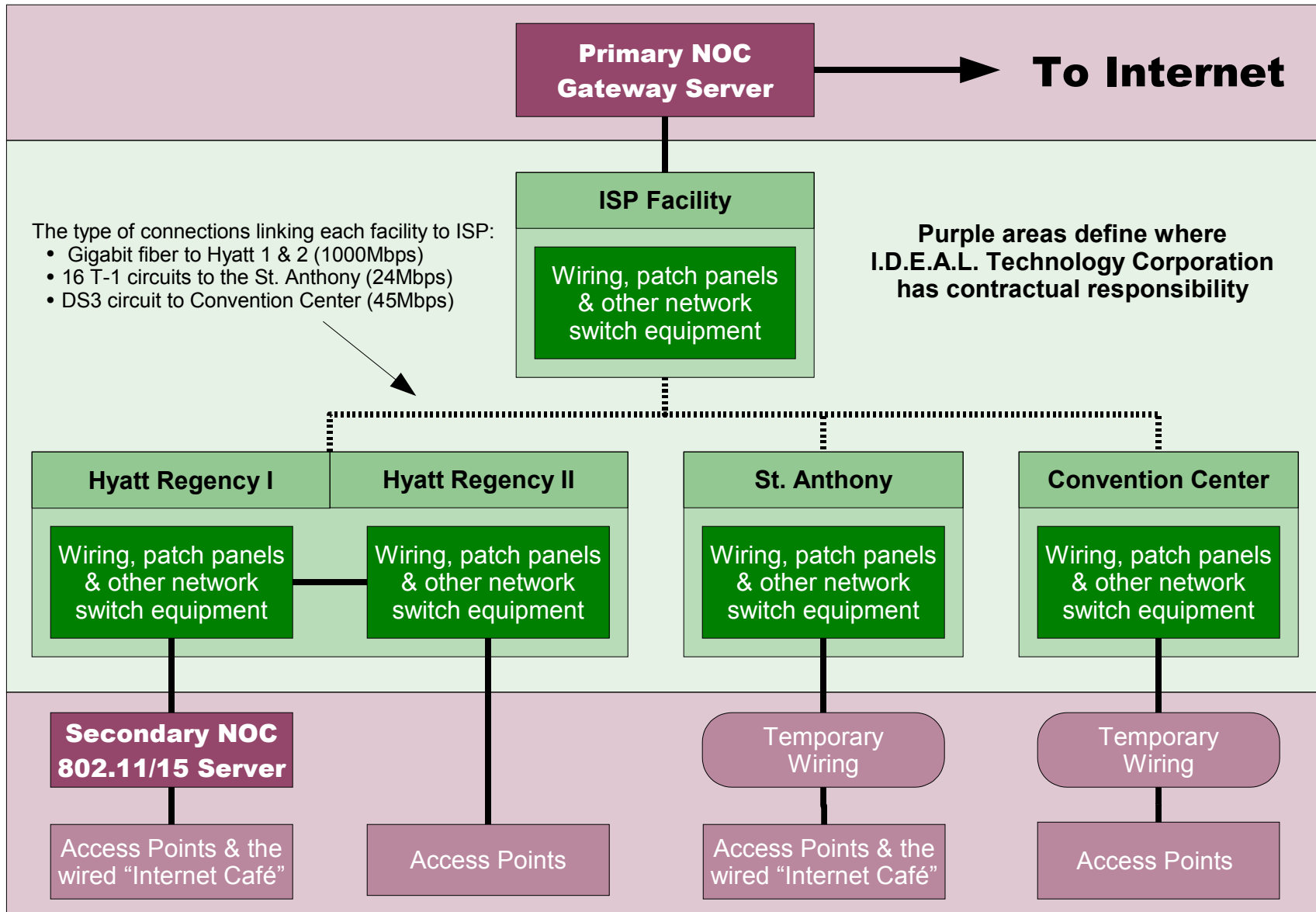
# WYNDAM ST. ANTHONY



# SA CONVENTION CENTER



# NETWORK BLOCK DIAGRAM



# NETWORK STATISTICS

(Statistics accurate as of 12:00pm 11-19-2004)

- Unique devices requesting IP address: 2355
- Total HTTP requests served: 19,093,836
- Total Gigabytes of HTTP data delivered: 72.7GB
- Max simultaneous Masq sessions: 61K (15K avg)
- Max simultaneous IPSEC tunnels: 207 (73 avg)
- Max simultaneous PPTP tunnels: 520 (223 avg)
- Max Internet access utilization: 25.71 Mb/sec (22.6Mb/sec)
- Total SMTP Email Deliveries: 36,024

**This conference  
broke all previous  
IEEE network  
performance records**

I-D-E-A-L

# NETWORK CLIENTS

29 3com Corporation	189 Cisco Systems, Inc.	1 Kingmax Technology, Inc.	2 Sharp Corporation
5 Abocom Systems, Inc.	2 Cnet Technology Inc.	1 Lite-On Communications, Inc.	1 Siemens Ag
2 Acer Incorporated	8 Compal Electronics, Inc.	9 Lucent Technologies	17 SMC Networks, Inc.
27 Actiontec Electronics, Inc.	28 Compaq Computer Corp	35 Marvell Semiconductor, Inc.	14 Solomon Extreme Intl
187 Agere Systems	291 Corega K.K.	1 Matsushita Electric Industrial	21 Sony Corporation Ltd.
1 Airespace, Inc.	2 Cybertan Technology, Inc.	8 Megahertz Corporation	5 Sychip Inc.
5 Airgo Networks, Inc.	53 D-Link Corporation	11 Melco Inc.	3 Symbol Technologies, Inc.
33 Aironet Wireless Communication	37 Dell Computer Corporation	2 Micro-Star International Co.	1 Systemonic Ag
1 Allied Telesis, K.K.	7 Delta Networks, Inc.	6 Microsoft Corporation	1 Test-Um Inc.
1 Alps Electric Co., Ltd.	2 Edimax Technology Co., Ltd.	1 MITAC International Corp.	84 The Linksys Group, Inc.
21 Ambit Microsystems Corp.	2 Elecom Co., Ltd.	1 Module Department	12 Toshiba Corporation
55 Ambit Microsystems Corporation	4 Enterasys Networks	1 Motorola Bcs	1 Twinhead Corporation
9 Ani Communications Inc.	4 Epigram, Inc.	4 NEC Corporation	2 U.S. Robotics, Inc.
36 Apple Computer, Inc.	1 Ericsson Group	72 Netgear, Inc.	10 USI
1 Arima Computer Corp.	4 Farallon Computing/Netopia	8 Nokia Wireless	1 Victor Company
73 Askey Computer Corp.	1 Forte Networks	13 Nortel Networks	2 VMware, Inc.
5 Asustek Computer Inc.	17 Fujitsu Limited	2 Palm Inc.	2 Wistron Corp.
7 Atheros Communications, Inc.	101 Gemtek Technology Co., Ltd.	41 Philips Components	5 Wistron Neweb Corp.
8 Belkin Components	2 Giga Fast E. Ltd.	1 Planet Communications, Inc.	1 Woonsang Telecom, Inc.
3 Belkin Corporation	5 Global Sun Technology, Inc.	2 IBM Japan Co, Ltd	26 Ww Pcba Test
1 Benq Corporation	26 Hewlett-Packard Company	5 Private	41 Xircom
1 Billionton Systems, Inc.	1 Hob Electronic Gmbh & Co.	25 Proxim, Inc.	5 Z-Com, Inc.
2 Broadcom Corporation	4 I-O Data Device, Inc.	1 Quanta Computer, Inc.	1 Zyxel Communication
2 Bromax Communications, Ltd.	43 IBM Corporation	2 Realtek Semiconductor Corp.	1 0C:0C:0C
1 Cabletron - Yago Systems, Inc.	2 Icom Inc.	1 Redcreek Communications	1 63:27:24
2 Cameo Communications, Inc.	441 Intel Corporation	38 Samsung Electro-Mechanics	
2 Card Access, Inc.	4 Intersil Corp.	2 Senao International Co., Ltd.	2355 Total

# NETWORK ISSUES

- An outage occurred on November 16, 2004 at 8:45AM for 20 minutes. This was due to a bug in the network card driver on the Hubble server and affected all facility sites. This issue will be corrected with a kernel upgrade during the equipment maintenance period.
- An outage occurred on November 16, 2004 at 9:55AM for 25 minutes. This was due to a switch locking up and only affected the St. Anthony hotel.
- The Hyatt Regency hotel experienced degraded 802.11b wireless network performance due to the presence of a video streaming demonstration utilizing 802.11g. This issue was escalated to the LMSC executive committee and was resolved by Wednesday.
- A total of 109 disrupted events were detected on the network resulting in the removal of 22 client systems from the network.

# I.D.E.A.L. CONTACT INFO

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11.13

**ADJOURN SEC MEETING**

**ME - Motion, External      MI - Motion, Internal**

**DT- Discussion Topic      II - Information Item**

**Special Orders**

-

- **Nikolich**

**05:58 PM**

**06:00 PM**

Respectfully submitted,

Bob O'Hara

Recording Secretary, 802 LMSC