## AGENDA & MINUTES (Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING

Friday, July 12, 2002 - 1:00 p.m.

Hyatt Regency, Vancouver, B.C., Canada

#### 1. MEETING CALLED TO ORDER

5 Paul Nikolich called the meeting to order at 1:00pm. Members in attendance were:

10	Paul Nikolich Geoff Thompson Buzz Rigsbee Bob O'Hara Robert Grow Tony Jeffree Geoff Thompson	<ul> <li>Chair, IEEE 802 LAN / MAN Standards Committee</li> <li>Vice Chair, IEEE 802 LAN / MAN Standards Committee</li> <li>Executive Secretary, IEEE 802 LAN / MAN Standards Committee</li> <li>Recording Secretary, IEEE 802 LAN / MAN Standards Committee</li> <li>Treasurer, IEEE 802 LAN/MAN Standards Committee</li> <li>Chair, IEEE 802.1 - HILI Working Group</li> <li>Chair, IEEE 802.3 - CSMA/CD Working Group</li> </ul>
15	Bob Love Stuart Kerry Bob Heile Roger Marks Mike Takefman Carl Stevenson	<ul> <li>Chair, IEEE 802.5 - Token Ring Working Group</li> <li>Chair, IEEE 802.11 - Wireless LANs Working Group</li> <li>Chair, IEEE 802.15 - Wireless PAN Working Group</li> <li>Chair, IEEE 802.16 - Broadband Wireless Access Working Group</li> <li>Chair, IEEE 802.17 - Resilient Packet Ring Working Group</li> <li>Chair, IEEE 802.18 - Radio Regulatory TAG</li> </ul>
20	Mat Sherman	- Non-voting Vice Chair, IEEE 802 LAN / MAN Standards Committee

The meeting was attended by approximately 20 IEEE 802 Working Group members and several guests.

### 2.00 APPROVE OR MODIFY AGENDA

Reverse the order of 4.10 and 4.11, move items 4.26 through 4.28 to between, 4.11 and 4.12. Item 4.06 added to the consent agenda. Move 4.23 to follow item 4.28 (as it has been moved in the agenda).

## 25

#### Motion to approve agenda.

Items in the proposed agenda that are on the consent agenda are shown as white text on grey background.

#### Move/Second: Marks/Heile

#### 11/0/0 Approved at 1:06 pm

### **IEEE 802 SEC MEETING AGENDA**

### Friday, July 12, 2002 1:00 pm

### Hyatt Regency, Vancouver, B.C., Canada

1.00 2.00 3.00		MEETING CALLED TO ORDER APPROVE OR MODIFY AGENDA TREASURER'S REPORT		Nikolich Nikolich Quackenbush	1 4 10	01:00 PM 01:01 PM 01:05 PM
	Categ	gory (* = consent agenda)				
4.00	ME*	802.1ab PAR to NESCOM	-	Jeffree	0	01:15 PM
4.01	ME*	802.1ac PAR to NESCOM		Jeffree	0	01:15 PM
4.02	ME*	802.16.2a revision to NESCOM		Marks	0	01:15 PM
4.03	ME*	1802.16.1 to NESCOM		Marks	0	01:15 PM
4.04	MI*	Radio Resource Management SG		Kerry	0	01:15 PM

4.05	MI*	High Throughput SG		Kerry	0	01:15 PM
4.06	MI*	802.15.3a SG reauthorization until November 2002		Heile		01:15 PM
4.07	ME	Get IEEE 802 Program agreement approval	-	Nikolich	10	01:15 PM
4.08	ME	802.16c conditional approval to sponsor ballot	-	Marks	5	01:25 PM
4.09	ME	802.16a conditional approval to sponsor ballot	-	Marks	5	01:30 PM
4.10	МІ	Affirmation of 802.16 Mobile Wireless MAN SG	-	Marks	10	01:35 PM
4.11	МІ	802.16 Mobile BWA Study Group	-	Marks/Klerer	10	01:45 PM
4.12	ME	Response to FCC Spectrum Mgt TF RFC	-	Stevenson	10	01:55 PM
4.13	ME	Authorize Stevenson to represent LMSC at FCC	-	Stevenson	1	02:05 PM
4.14	ME	Comment supporting IWG-5 on WRC-03 item 1.5	-	Stevenson	10	02:06 PM
4.15	ME	Letter to CITEL PCC III	-	Stevenson	10	02:16 PM
4.16	ME	Reply to FCC on ARRL response	-	Stevenson	10	02:26 PM
4.17	MI	802.18 TAG Charter	-	Stevenson	10	02:36 PM
4.18	MI	TAG operation rules change	-	Stevenson	10	02:46 PM
4.19	MI	Operation of 802.18 under proposed rules	-	Stevenson	10	02:56 PM
4.20	ME	802.1s conditional approval for sponsor ballot	-	Jeffree	5	03:06 PM
4.21	ME	Liaison letter to ITU-T SG 15, 17	-	Takefman	5	03:11 PM
4.22	ME	802.11F to sponsor ballot	-	Kerry	10	03:16 PM
4.23	ME	PAR for Coexistence TAG	-	Lansford	15	03:26 PM
4.24	ME	802.15.4 conditional approval to sponsor ballot	-	Heile	5	03:41 PM
4.25					0	03:46 PM
4.26	MI	SEC meeting time rules change	-	Nikolich	10	03:46 PM
4.27	MI	2nd Vice Chair rules change	-	Thompson	10	03:56 PM
4.28	MI	Email Balloting rules change	-	Sherman	10	04:06 PM
4.29	MI	Chair's guideline for OID arcs	-	Jeffree	5	04:16 PM
4.30					0	04:21 PM
4.31					0	04:21 PM
4.32	MI	Meeting organizer contract approval	-	Quackenbush	5	04:21 PM
4.33	MI	Motion support motion	-	Quackenbush	2	04:26 PM
4.34	MI	Authorization to disperse funds for 802.3ah mtg	-	Quackenbush	10	04:28 PM
4.35	MI	Membership/Quorum rules change	-	Thompson	10	04:38 PM
4.36	DT	Cross-WG access to drafts and reflectors	-	Jeffree	5	04:48 PM
4.37	II	Trademark meeting results	-	Grow	2	04:53 PM
4.38	II	Future Meetings	-	Rigsbee	5	04:55 PM
4.39	II	Interim meetings	-	O'Hara	3	05:00 PM
4.40		Adjourn				05:00 PM
		ME - Motion, External MI - Motion, Internal				
		DT- Discussion Topic II - Information Item				

### 3.00 TREASURER'S REPORT

#### - Quackenbush 10 01:05 PM

LMSC is facing a CA\$110k penalty at Hotel Vancouver, because we did not meet the contracted booking volume. We are negotiating to reduce this amount, perhaps by holding an 802.3 interim meeting there.

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Bill's forecast for our reserve shows it declining to roughly \$26k at the end of 2003. This is insufficient to cover our liabilities, should we have to cancel a meeting and be hit with hotel penalties. Bill presented two alternative meeting fee increases and projected their effect on the reserve.

## IEEE Project 802 Estimated Statement of Operations July, 2002 Plenary Meeting

Meeting Income	Estimate	Budget
Registrations	997	850
Registration income	252,150	216,750
Deadbeat collections	0	0
Bank Interest	150	150
Other	230	375
TOTAL Meeting Income	252,530	217,275
Meeting Expenses	Estimate	Budget
Audio Visual Rentals	9,380	9,000
Audit	0	
Bank Charges	230	35
Copying	2,077	6,000
Credit Card Discount	7,060	6,069
Equipment Purchase	0	8,000
Get IEEE 802 Contribution	74,775	63,750
Insurance	0	0
Meeting Administration	38,000	53,250
Network	4,623	10,000
Phone & Electrical	670	2,000
Refreshments	51,590	35,700
Shipping	2,000	3,000
Social	26,800	31,450
Supplies	1,000	0
Other	36,850	500
TOTAL Meeting Expense	255,055	228,754
NET Meeting Income/Expense	(2,525)	(11,479)
Estimated Other Liabilities		
July, 2002 Operating Reserve	150,025	
Projected November, 2002 Operating Reserve	156,700	

## LMSC Budget

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5		2001				2002		]		2003		
	Hilton Head	Portland	Austin		St. Louis	Vancouver	Kauai		Dallas?	San Fran?	Albq.	
Meeting Income:	Actual <b>March</b>	Actual <b>July</b>	Actual <b>Nov</b>	2001	Actual <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2002	Budget <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2003
Registrations	1,094	1,019	936	2007	972	850	900	2002	900	850	800	2000
Preregistration fee	250	250	250		250	250	250		250	250	250	
On-site registration fee	300	300	300		300	300	300		300	300	300	
Average Fee	265	263	260		264	255	263		263	263	263	
Subtotal	290,200	267,550	243,450	801,200	257,000	216,750	236,250	710,000	236,250	223,125	210,000	669,375
Bank Interest	343	336	243,430 171	850	149	150	230,250 150	449	150	150	150	450
Other	49,109	4,700	300	54,109	300	375	375	1,050	375	375	375	1,125
Other	49,109	4,700	300	54,105	300	575	575	1,050	575	575	575	1,123
TOTAL Income	339,652	272,586	243,921	856,159	257,449	217,275	236,775	711,499	236,775	223,650	210,525	670,950
Meeting Expenses:	March	July	Nov	2001	March	July	Nov	2002	March	July	Nov	2003
Audio Visual Rentals	10,482	7,238	10,223	27,942	10,508	9,000	9,000	28,508	9.883	9,883	9,883	29,648
Audit	10,402	7,200	10,220	21,042	5,454	0,000	0,000	5,454	4,503	0,000	0,000	4,503
Bank Charges	1	3	2	6	162	230	230	622	230	230	230	690
Copying	2,267	5,987	5,201	13,455	4,194	6.000	6.000	16,194	5.500	5,500	5,500	16,500
Credit Card Discounts	8,334	7,667	6,740	22,742	6,703	6,069	6,615	19,387	6,615	6,248	5,880	18,743
Equipment Purchase	704	25,406	11,150	37,259	0,100	8,000	8,000	16,000	9,000	9,000	9,000	27,000
IPF/Escrow/Free 802 Stds	215,100	78,000	68,625	361,725	72,900	63,750	67,500	204,150	67,500	63,750	60,000	191,250
Insurance	,	,	00,020		1,944	0	0	1,944	4,503	0	0	4,503
Meeting Planners	62,715	49,291	55,830	167,836	54,670	53,250	52,590	160,510	60,488	57,988	55,488	173,963
Network	0_,0	4,300	00,000	4,300	7,478	10,000	10,000	27,478	10,000	10,000	10,000	30,000
Phone & Electrical	1,952	51	2,137	4.139	1.110	2.000	2.000	5,110	2.100	2.100	2,100	6,300
Refreshments	62,978	44,901	56,341	164,220	62,566	35,700	49,500	147,766	40,500	42,500	32,000	115,000
Shipping	2,448	775	2,219	5,442	1,966	3,000	3,000	7,966	3,100	3,700	3,700	10,500
Social	35,332	22,383	29,095	86,809	30,288	31,450	45,000	106,738	36,000	38,250	28,000	102,250
Supplies	0	0	0	0	17	0	0	17	0	0	0	0
Other	8,098	2,889	2,156	13,143	207	500	2,000	2,707	500	500	2,000	3,000
TOTAL Meeting Expense	410,411	248,890	249,719	909,020	260,165	228,949	261,435	750,549	259,922	249,648	223,780	733,850
NET to Operating Reserve	(70,758)	23,696	(5,798)	(52,860)	(2,716)	(11,674)	(24,660)	(39,050)	(23,147)	(25,998)	(13,255)	(62,900)
Opening Reserve	81,418	131,034	153,853		152,741	138,351	113,691	[	89,031	65,884	39,887	
Projected Closing Peceric	10,659	154,730	148,055		150,025	126,677	80.024	÷ ۲	65,884	20 007	26,631	
Projected Closing Reserve	10,059	104,730	146,055	l	150,025	120,011	89,031	l	00,004	39,887	20,031	
Projected Closing Cash	(541)	152,730	146,055		148,025	124,677	87,031	[	63,884	37,887	24,631	

Meeting Contracts Liability

## LMSC Budget

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5		2001		[		2002		[		2003		
	Hilton Head	Portland	Austin		St. Louis	Vancouver	Kauai		Dallas?	San Fran?	Albq.	
Meeting Income:	Actual March	Actual <b>July</b>	Actual <b>Nov</b>	2001	Actual <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2002	Budget <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2003
Registrations	1,094	1,019	936	2007	972	850	900	2002	900	850	800	2000
Preregistration fee	250	250	250		250	250	250		275	275	275	
On-site registration fee	300	300	300		300	300	300		325	325	325	
Average Fee	265	263	260		264	255	263		288	288	288	
Subtotal	290,200	267,550	243,450	801,200	257,000	216,750	236,250	710,000	258,750	244,375	230,000	733,125
Bank Interest	343	336	171	850	149	150	150	449	150	150	150	450
Other	49,109	4,700	300	54,109	300	375	375	1,050	375	375	375	1,125
TOTAL Income	339,652	272,586	243,921	856,159	257,449	217,275	236,775	711,499	259,275	244,900	230,525	734,700
Meeting Expenses:	March	July	Nov	2001	March	July	Nov	2002	March	July	Nov	2003
Audio Visual Rentals	10,482	7,238	10,223	27,942	10,508	9,000	9,000	28,508	9,883	9,883	9,883	29,648
Audit	-		-		5,454	0	0	5,454	4,503			4,503
Bank Charges	1	3	2	6	162	230	230	622	230	230	230	690
Copying	2,267	5,987	5,201	13,455	4,194	6,000	6,000	16,194	5,500	5,500	5,500	16,500
Credit Card Discounts	8,334	7,667	6,740	22,742	6,703	6,069	6,615	19,387	7,245	6,843	6,440	20,528
Equipment Purchase	704	25,406	11,150	37,259	0	8,000	8,000	16,000	9,000	9,000	9,000	27,000
IPF/Escrow/Free 802 Stds	215,100	78,000	68,625	361,725	72,900	63,750	67,500	204,150	67,500	63,750	60,000	191,250
Insurance					1,944	0	0	1,944	4,503	0	0	4,503
Meeting Planners	62,715	49,291	55,830	167,836	54,670	53,250	52,590	160,510	60,488	57,988	55,488	173,963
Network	0	4,300	0	4,300	7,478	10,000	10,000	27,478	10,000	10,000	10,000	30,000
Phone & Electrical	1,952	51	2,137	4,139	1,110	2,000	2,000	5,110	2,100	2,100	2,100	6,300
Refreshments	62,978	44,901	56,341	164,220	62,566	35,700	49,500	147,766	40,500	42,500	32,000	115,000
Shipping	2,448	775	2,219	5,442	1,966	3,000	3,000	7,966	3,100	3,700	3,700	10,500
Social	35,332	22,383	29,095	86,809	30,288	31,450	45,000	106,738	36,000	38,250	28,000	102,250
Supplies	0	0	0	0	17	0	0	17	0	0	0	0
Other	8,098	2,889	2,156	13,143	207	500	2,000	2,707	500	500	2,000	3,000
TOTAL Meeting Expense	410,411	248,890	249,719	909,020	260,165	228,949	261,435	750,549	260,552	250,243	224,340	735,635
NET to Operating Reserve	(70,758)	23,696	(5,798)	(52,860)	(2,716)	(11,674)	(24,660)	(39,050)	(1,277)	(5,343)	6,185	(935)
Opening Reserve	81,418	131,034	153,853	[	152,741	138,351	113,691	[	89,031	87,754	82,412	
Projected Closing Reserve	10,659	154,730	148,055	[	150,025	126,677	89,031	[	87,754	82,412	88,596	
Projected Closing Cash	(541)	152,730	146,055	[	148,025	124,677	87,031	[	85,754	80,412	86,596	

Meeting Contracts Liability

## LMSC Budget

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5		2001		[		2002		[		2003		
	Hilton Head	Portland	Austin		St. Louis	Vancouver	Kauai		Dallas?	San Fran?	Albq.	
Meeting Income:	Actual <b>March</b>	Actual <b>July</b>	Actual <b>Nov</b>	2001	Actual <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2002	Budget <b>March</b>	Budget <b>July</b>	Budget <b>Nov</b>	2003
Registrations	1,094	1,019	936	2007	972	850	900	2002	900	850	800	2000
Preregistration fee	250	250	250		250	250	250		300	300	300	
On-site registration fee	300	300	300		300	300	300		350	350	350	
Average Fee	265	263	260		264	255	263		313	313	313	
Subtotal	290,200	267,550	243,450	801,200	257,000	216,750	236,250	710,000	281,250	265,625	250,000	796,875
Bank Interest	343	336	171	850	149	150	150	449	150	150	150	450
Other	49,109	4,700	300	54,109	300	375	375	1,050	375	375	375	1,125
TOTAL Income	339,652	272,586	243,921	856,159	257,449	217,275	236,775	711,499	281,775	266,150	250,525	798,450
Meeting Expenses:	March	July	Nov	2001	March	July	Nov	2002	March	July	Nov	2003
Audio Visual Rentals	10,482	7,238	10,223	27,942	10,508	9,000	9,000	28,508	9,883	9,883	9,883	29,648
Audit	-		-		5,454	0	0	5,454	4,503			4,503
Bank Charges	1	3	2	6	162	230	230	622	230	230	230	690
Copying	2,267	5,987	5,201	13,455	4,194	6,000	6,000	16,194	5,500	5,500	5,500	16,500
Credit Card Discounts	8,334	7,667	6,740	22,742	6,703	6,069	6,615	19,387	7,875	7,438	7,000	22,313
Equipment Purchase	704	25,406	11,150	37,259	0	8,000	8,000	16,000	9,000	9,000	9,000	27,000
IPF/Escrow/Free 802 Stds	215,100	78,000	68,625	361,725	72,900	63,750	67,500	204,150	67,500	63,750	60,000	191,250
Insurance					1,944	0	0	1,944	4,503	0	0	4,503
Meeting Planners	62,715	49,291	55,830	167,836	54,670	53,250	52,590	160,510	60,488	57,988	55,488	173,963
Network	0	4,300	0	4,300	7,478	10,000	10,000	27,478	10,000	10,000	10,000	30,000
Phone & Electrical	1,952	51	2,137	4,139	1,110	2,000	2,000	5,110	2,100	2,100	2,100	6,300
Refreshments	62,978	44,901	56,341	164,220	62,566	35,700	49,500	147,766	40,500	42,500	32,000	115,000
Shipping	2,448	775	2,219	5,442	1,966	3,000	3,000	7,966	3,100	3,700	3,700	10,500
Social	35,332	22,383	29,095	86,809	30,288	31,450	45,000	106,738	36,000	38,250	28,000	102,250
Supplies	0	0	0	0	17	0	0	17	0	0	0	0
Other	8,098	2,889	2,156	13,143	207	500	2,000	2,707	500	500	2,000	3,000
TOTAL Meeting Expense	410,411	248,890	249,719	909,020	260,165	228,949	261,435	750,549	261,182	250,838	224,900	737,420
NET to Operating Reserve	(70,758)	23,696	(5,798)	(52,860)	(2,716)	(11,674)	(24,660)	(39,050)	20,593	15,312	25,625	61,030
Opening Reserve	81,418	131,034	153,853	[	152,741	138,351	113,691	[	89,031	109,624	124,937	
Projected Closing Reserve	10,659	154,730	148,055	[	150,025	126,677	89,031	[	109,624	124,937	150,561	
Projected Closing Cash	(541)	152,730	146,055	[	148,025	124,677	87,031	[	107,624	122,937	148,561	

Meeting Contracts Liability

4.00 ME* 802.1ab PAR to NESCOM	- Jeffree	0	01:15 PM
Moved: Forward PAR for 802.1ab (Discovery Protocol) to NesCom.			
Moved: Jeffree/			
4.01 ME* 802.1ac PAR to NESCOM	- Jeffree	0	01:15 PM
Moved: Forward PAR for 802.1ac (MAC Service Revision) to NesCom. Moved: Jeffree/			
4.02 ME* 802.16.2a revision to NESCOM	- Marks	0	01:15 PM

## LMSC Motion: To forward Revised PAR 802.16.2a to NesCom

- Moved by: Roger Marks
- Seconded by:

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- Key Materials
- Proposed Revised PAR 802.16.2a
  - History
  - 11 July 2002

Motion approved at 802.16 Closing Plenary by unanimous voice vote: "To submit the revised PAR 802.16.2a in IEEE 802.16-02/31r1" Notes

- PAR Title: Draft Local and Metropolitan Area Networks Amendment to Recommended Practice for Coexistence of Fixed Broadband Wireless
   Access Systems
- The PAR is being revised only to remove the following sentence from end of Purpose statement: "A further purpose is to encourage voluntary procedures that facilitate a simpler licensing process for systems operating below 11 GHz, particularly in the 2.5 GHz MMDS/ITFS bands in the USA." Other changes are made in order to comply with the current PAR format. The schedule has not changed.
- PAR is on NesCom "Continuous Processing" agenda for consideration during the week of 15 July.
- PAR signature form has already been submitted.

Project	IEEE 802.16 Broadband Wireless Access Working Group <http: 16="" ieee802.org=""></http:>							
Title	Proposed Revision of IEEE PAR 802.16.2a							
Date Submitted	2002-07-11							
Source(s)	Roger Marks NIST 325 Broadway Boulder, CO 80305	Voice: +1-303-497-3037 Fax: +1-303-497-3037 mailto:r.b.marks@ieee.org						
Re:	IEEE PAR 802.16.2a							
Abstract	Proposed Revision of IEE	E PAR 802.16.2a.						
Purpose	The purpose of the PAR revision is to remove the following sentence from the Purpose statement: "A further purpose is to encourage voluntary procedures that facilitate a simpler licensing process for systems operating below 11 GHz, particularly in the 2.5 GHz MMDS/ ITFS bands in the USA." RevCom requires that the standard reproduce the Purpose statement verbatim, but the draft does not include sufficient detail on this issue to warrant including such a statement. Other changes are made in order to comply with the current PAR format.							
	This proposal should be reviewed by TG2 at Session #20. The revised PAR should be approved at the Working Group Closing Plenary on 11 July 2002 and by the 802 SEC on 12 July 2002.							
Notice	not binding on the contributing ind	o assist IEEE 802.16. It is offered as a basis for discussion and is ividual(s) or organization(s). The material in this document is nt after further study. The contributor(s) reserve(s) the right to add, ned herein.						
Release	contribution, and any modifications copyright in the IEEE's name any I this contribution; and at the IEEE's	becable license to the IEEE to incorporate material contained in this a thereof, in the creation of an IEEE Standards publication; to EEE Standards publication even though it may include portions of sole discretion to permit others to reproduce in whole or in part the on. The contributor also acknowledges and accepts that this y IEEE 802.16.						
Patent Policy and Procedures	<http: 16="" ieee802.org="" ipr="" p<br="" patents="">the known use of patent(s), includin opinion of the standards-developing patent holder that it will license app implementing the standard." Early disclosure to the Working Gr essential to reduce the possibility for that the draft publication will be ap <mailto:r.b.marks@ieee.org> as ea (granted or under application) that</mailto:r.b.marks@ieee.org></http:>	IEEE 802.16 Patent Policy and Procedures (Version 1.0) solicy.html>, including the statement "IEEE standards may include ng patent applications, if there is technical justification in the g committee and provided the IEEE receives assurance from the policants under reasonable terms and conditions for the purpose of oup of patent information that might be relevant to the standard is or delays in the development process and increase the likelihood proved for publication. Please notify the Chair rly as possible, in written or electronic form, of any patents may cover technology that is under consideration by or has been ir will disclose this notification via the IEEE 802.16 web site otices>.						

## IEEE-SA Standards Board Project Authorization Request (PAR) Form (2002)

For a review of the Standards Development Process (designed to assist the Working Group, Working Group Chair, Sponsor Chair, and Society Liaison), please click here.

1. Assigned Project Number (Please contact the NesCom Administrator if this is a new PAR): P802.16.2a

2. Sponsor Date of Request: 2002-07-12

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 Local and Metropolitan Area Networks — Amendment to Recommended Practice for Coexistence of Fixed Broadband Wireless Access Systems

5. Life Cycle
➢ Full Use (5-year life cycle)
☐ Trial Use (2-year life cycle)

6. Type of Project:

New standard

Revision of existing standard (indicate Number and year existing standard was published in box to the right) (####-YYYY)

Amendment to an existing standard (indicate Number and year existing standard was published in box to the right) 802.16.2-2001 (####-YYYY)

Corrigendum to an existing standard (indicate Number and year existing standard was published in box to the right) (####-YYYY)

Revised PAR (indicate PAR Number and Approval Date here: P 802.16.2a – 2001-08-17 (YYYY-MM-DD)

Is this project in ballot now? No

State reason for revising the PAR in Item #18.

7. Contact information of Working Group Chair who must be an SA member as well as an IEEE and/or Affiliate Member

Name of Working Group(WG) : IEEE 802.16 Working Group on Broadband Wireless Access

Name of Working Group Chair: First Name: Roger Last Name: Marks Telephone: +1 303 497 3037 FAX: +1 303 497 3122 EMAIL: r.b.marks@ieee.org

8. Contact Information of Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair. The Official Report must be an SA member as well as an IEEE and/or Affiliate Member

Name of Official Reporter (if different than Working Group Chair): First Name: Last Name: Telephone: FAX: EMAIL:

9. Contact information of Sponsoring Society or Standards Coordinating Committee

Sponsoring Society and Committee: Computer Society, LAN/MAN Standards Committee; Microwave Theory and Techniques Society Sponsor Committee Chair: First Name: Paul Last Name: Nikolich Telephone: 978 749 9999 x246 FAX: 781 334 2255 EMAIL: p.nikolich@ieee.org

10. Sponsor Balloting Information (Please choose one of the following) Choose one from the following:
Individual Balloting
Entity Balloting
Mixed Balloting (combination of Individual and Entity Balloting)

Expected Date of Submission for Initial Sponsor Ballot: 2002-11-15

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 revised PAR.

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

11. Projected Completion Date for Submittal to RevCom: 2003-03-31

If this is a REVISED 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 revised PAR, please go to question #12

Statement of why the extension is required:

When did you begin writing the first draft?:

How many people are actively working on the project?:

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

How frequently is a draft version circulated to the working group via electronic means?:

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

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

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

## 12. Scope of Proposed Project

[Projected output including technical boundaries. REVISED STANDARDS - Projected output including the scope of the original standard, amendments and additions. Please be brief (less than 5 lines).]:

This project specifies extensions and modifications to IEEE Standard 802.16.2-2001 addressing two distinct topics. The first is coexistence between multipoint systems and point-to-point systems in the frequency range 10-66 GHz, with a focus on the range 23.5 to 43.5 GHz. The second topic is coexistence among fixed BWA systems operating in licensed bands within the frequency range 2-11 GHz. Clarifications and updates to the existing standard will also be considered.

## 13. Purpose of Proposed Project:

[Intended users and user benefits. REVISION STANDARDS - Purpose of the original standard and reason for the standard's revision. Please be brief (less than 5 lines).]:

The purpose of this Amendment is to provide coexistence guidelines to license holders, service providers, deployment groups, and system integrators, covering coexistence with point-to-point systems (primarily from 23.5-43.5 GHz) and coexistence among licensed fixed BWA systems operating in the 2-11 GHz frequency range. The specifications will facilitate the deployment and operation of fixed BWA systems while minimizing the need for case-by-case coordination.

14. Intellectual Property {Answer each of the questions below}

Sponsor has reviewed the IEEE patent policy with the working group? Yes

Sponsor is aware of copyrights relevant to this project? Yes

Sponsor is aware of trademarks relevant to this project? Yes

Sponsor is aware of possible registration of objects or numbers due to this project? No

15. Are there other standards or projects with a similar scope?

Yes, with explanation below

Explanation: Administrations are developing general coordination criteria and procedures to allow fixed BWA operators to deploy systems. Detailed coexistence guidance, such as described in this PAR, is under development in other regional and international bodies. Studies addressing certain aspects of coexistence are being developed by or have been completed by organizations such as:

• International Telecommunications Union (ITU): ITU-R JRG 8A/9B and ITU-R 9B

• European Telecommunications Standards Institute (ETSI): Technical Committee TM

(Transmission and Multiplexing), Working Group TM4 (Fixed Radio Systems)

• Inter-American Telecommunication Commission (CITEL): Permanent Consultative Committee III: Radiocommunications (PCC-III)

• Association of Radio Industries and Businesses (ARIB): R&D Group for the Fixed Wireless Access System

- National Spectrum Managers Association (NSMA)
- Radio Advisory Board of Canada (RABC)
- Conférence Européenne des Postes et Télécommunications (CEPT)

If Yes, please answer the following: Sponsor Organization: Project Number: Project Date: Project Title:

16. International Sponsor Organization

Is there potential for this standard (in part or in whole) to be submitted to an international organization for review/adoption?

?? if you don't know at this time {Yes/No/?? if you don't know at this time}

If Yes, please answer the following questions: International Committee Name and Number: International Organization Contact Information: Contact First Name: Contact Last Name: Contact Telephone Number: Contact FAX Number: Contact E-mail address:

17. Will this project focus on health, safety or environmental issues? No{Yes/No/?? if you don't know at this time} If Yes: Explanation? [ ]

18. Additional Explanatory Notes: {Item Number and Explanation}

(6) The PAR is being revised only to remove the following sentence from the Purpose statement: "A further purpose is to encourage voluntary procedures that facilitate a simpler licensing process for systems operating below 11 GHz, particularly in the 2.5 GHz MMDS/ITFS bands in the USA." RevCom requires that the standard reproduce the Purpose statement verbatim, but the draft does not include sufficient detail on this issue to warrant including such a statement. Other changes are made in order to comply with the current PAR format. The schedule has not changed.

(9) Note that the project has two co-sponsors.

(12) IEEE Standard 802.16.2-2001 concentrates on interference between fixed BWA systems with a multipoint architecture operating in the 23.5 to 43.5 GHz frequency range. In each interference scenario, the victim system has a point-to-multipoint architecture. This project will extend the analysis to include scenarios in which various types of point-to-point system (both those used by fixed BWA operators and those used as individually assigned links, commonly licensed on a "first-come, first-served" basis) are either the interferer or the victim. It will also add scenarios for multipoint systems operating at lower frequencies. New recommendations and guidelines will be developed appropriate to the new scenarios studied.

The PAR Copyright Release and Signature Page must be submitted either by FAX to 732-562-1571 or as an e-mail attachment in .pdf format to the NesCom Administrator before this PAR will be sent on for NesCom and Standards Board approval.

IEEE-SA Standards Board Working Guide for the Project Authorization Request (PAR) Form

This guide has been prepared to assist in the submittal of the PAR for consideration by the New Standards Committee (NesCom) and approval by the IEEE-SA Standards Board as an IEEE Standards Project. Submitters should also refer to the latest edition of the IEEE-SA Standards Board Operations Manual.

A PAR must be received by the IEEE-SA Standards Department at least 40 calendar days before the next IEEE-SA Standards Board meeting. Submittal deadlines for the year 2002 are available. Please note that the PAR may be approved via our continuous processing program. For more information on this program, please go to our website at http://standards.ieee.org/faqs/contproc.html.

1. Assigned Project Number

New Standards Projects: Leave blank. Standards Revision/Update: Enter PAR number from existing standard.

Note: New project numbers are assigned by the IEEE Standards Department. Please confer with IEEE staff if a specific project number is desired.

2. Sponsor Date of Request

Enter the date when the PAR is submitted to the IEEE-SA.

3. Type of Document

For the submitter's reference, standards are documents with mandatory requirements and are generally characterized by the use of the verb "shall."

Recommended practices are documents in which procedures and positions preferred by IEEE are presented and are generally characterized by the use of the verb "should."

Guides are documents in which alternative approaches to good practice are suggested, but no clear-cut recommendations are made. They are generally categorized by the use of the verb "may."

4. Title of Document

Enter the title of the document.

The project title should include the type of document. For example:

- 1. Standard Test Method for...
- 2. Recommended Practice for...
- 3. Guide for...

The title should not contain the acronym "IEEE". This is added to the title when published.

All acronyms should be spelled out.

5. Life Cycle

A standard can be designated trial-use or full-use.

A standard can be designated for trial use when a draft satisfies the standards-developing group (i.e., subcommittee or working group), but needs input from a very broad constituency. This is a preferred alternative to the widespread distribution of unapproved drafts. Such a draft requires a letter ballot of the sponsor and approval by the IEEE-SA Standards Board as a trial-use standard. Trial-use standards are effective for not more than two years from the date of publication. In the absence of comments received in the trial period, the document is subject to adoption as a full-use standard upon receipt of written recommendation from the sponsor and approval by the IEEE-SA Standards Board.

6. Type of Project

Indicate whether this work will result in a new standard, a revision of an existing standard (indicate standard number and year), an amendment (formerly supplement) to an existing standard (indicate standard number and year), or a corrigendum (indicate standard number and year).

Amendments are additions to existing standards and may contain substantive corrections and/or errata to the standard. Corrigenda are substantive corrections and/or errata to a standard.

If this is an update to an existing PAR, indicate the original PAR number, approval date and ballot status.

If this is a PAR revision, provide a short explanation of the changes to the original PAR. Rationale MUST be submitted with the PAR revision request under Item #18.

7. Contact Information of Working Group Chair

Indicate the Name, Telephone Number, FAX Number and E-mail address of the Working Group (WG) Chair. The Working Group Chair must be an SA member as well as an IEEE and/or Affiliate Member. IEEE/IEEE-SA membership number is required.

8. Contact Information for Official Reporter, Project Editor or Document Custodian

Indicate the Name, Telephone Number, FAX Number and E-mail address of the Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair. The Official Reporter must be an SA member as well as an IEEE and/or Affiliate Member. IEEE/IEEE-SA membership number is required.

9. Contact Information of Sponsoring Society or Standards Coordinating Committee

Enter the name of the sponsoring society and the name of the sponsoring committee (i.e., Power Engineering/Switchgear, not PE/SWG) responsible for the development and coordination of the project and for the maintenance of the document after approval by the Standards Board. The name entered here should not be confused with the name of the group writing the standard. If the project is sponsored by two or more committees, enter all committee names and indicate that the work is a jointly sponsored project. When a Standards Coordinating Committee (SCC) is developing the document, enter the SCC number and name as the sponsor (i.e., Standards Coordinating Committee 4 - Thermal Rating).

10. Sponsor Balloting Information:

Is the balloting group for this project expected to be composed of individuals, of entities (persons representing corporations/government bodies/academic institutions, or SDO's), or a combination of both? See Section 5.4.1 in the IEEE-SA Standards Board Operations Manual for further explanation.

For the expected date of submission for initial balloting entry, enter the date the draft standard is planned to be submitted to the IEEE for balloting. Make the entry in numerical month-year format.

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

## 11. Projected Completion Date for Submittal to RevCom

Enter the date the draft standard is planned to be submitted to RevCom for processing. Make the entry in numerical month-year format (not to exceed four years from the date of PAR submission). Cutoff dates for submitting draft standards to RevCom are generally in February, May, August and October. Check the appropriate calendars for the specific date as the draft matures. Use a best estimate for the PAR.

## 12. Scope of Proposed Project

The submittal should clearly and concisely define the scope of the document. The scope generally describes "what" will be done, i.e. the technical boundaries of the project. For example:

"Scope: This project will develop a standard protocol for the control of printers. This protocol will be independent of the underlying datastream or page description language used to create the printed page. This protocol will be usable by all classes of printers. This project is limited to management and control of printers and will not include management or control of printing systems or subsystems."

The Scope of a revision to a standard or a revision to the Scope of an existing PAR shall represent the new Scope. If the Scope is different from the original Scope, provide an indication of the differences in Item #18.

### 13. Purpose of Proposed Project

The submittal should clearly and concisely define the purpose of the document. The purpose generally describes "why" a project will be done. For example:

"Purpose: There is currently no defined, independent standard for controlling printers. Each vendor builds some control into the underlying page description language or datastream. Without an independent, openly defined protocol, applications and operating systems cannot automatically determine the type of printer being addressed. This protocol will provide a minimum implementation subset which will allow automatic identification and configuration of printers and vendor extensibility to provide for growth and product differentiation."

The purpose of the document should be consistent with the description of the document in Item 3, the title in Item 4, and the scope in Item 12. If the title of the document is "Guide for...," it is inconsistent if the purpose states "This document will describe standard criteria..."

The scope, purpose and/or title indicated on the PAR should agree in principle with the scope, purpose and/or title stated in the document at the time of submittal to the IEEE-SA Standards Board.

If this is a PAR to revise the standard, explain here why changes are being made to the standard. This may be due to a change in industry, the introduction of new technology, etc.

The Purpose of a revision to a standard or a revision to the Purpose of an existing PAR shall represent the new Purpose. If the Purpose is different from the original Purpose, provide an indication of the differences in Item #18.

## 14. Intellectual Property

If an IEEE standards-developing committee chooses to include patented technology in its standard, early disclosure of these patents is valuable. Early disclosure notifies the standards developers and the IEEE of the patent in the most timely manner and gives participants the greatest opportunity to evaluate the benefits the patented technology may offer a draft standard. However, the standards developers should not take any action that could be interpreted as requiring any participant in the development process to undertake a patent search of its own portfolio or of any other. The objective is to obtain early disclosure concerning the existence of patents, where known.

If the proposed standard uses copyrighted material, copyright releases must be obtained by the working group and included in the final package submitted to the IEEE-SA Standards Board. Additionally, remember that during development of your approved project, the proper IEEE copyright notices must be maintained on all drafts.

If the proposed standard uses any trademarked terms, permission for use must be obtained from the owner. Refer to Section 6 of the IEEE-SA Standards Board Operations Manual for IEEE patent, copyright, and trademark policies.

If the proposed standard will require the unique identification of objects or numbers by the IEEE for use in industry, this should be indicated. An example of this type of registration is the unique manufacturer ID, known as Organizationally Unique Identifier (OUI).

15. Are there other Standards or Projects with a Similar Scope?

Identify any standard(s) or project(s) of similar scope(s), both within or outside of the IEEE, and explain the need for an additional standard in this area.

16. International Sponsor Organization

If the project is intended to be submitted to the appropriate international technical committee as the basis of or for inclusion in an international standard, or if this standard is intended to be adopted as the international standard, this should be noted here. It is important for all working group members to be aware of international activity within their area of technical expertise.

17. Will this Project focus on Health, Safety or Environmental Issues?

No intensive research required; only obvious or general health, safety, or environmental issues that would be affected by this work need to be cited.

18. Additional Explanatory Notes:

If you know of any further information that may assist NesCom in recommending approval for your project, please include this information here.

If this is a revised PAR or a PAR for the revision of a standard, a short explanation of the changes to the original PAR and rationale MUST be submitted under this item.

Copyright Form (separate page)

The copyright form, the last page in the electronic PAR form (and a separate page), must be submitted by FAX to the IEEE-SA office before the PAR will be approved. In order to comply with US copyright law, the IEEE and its legal counsel request that a copyright agreement be signed by the Official Reporter, who is usually the chair of the working group. This signed copyright agreement is an official part of the IEEE Standards Project Authorization Request (PAR). The PAR will not be submitted to the IEEE-SA Standards Board until the copyright agreement is signed by the proper person.

If you have any questions, please contact the NesCom Administrator.

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## LMSC Motion: To forward PAR 1802.16.1 to NesCom

- 5 Moved by: Roger Marks
  - Seconded by:

History

- Key Materials
- <u>Proposed PAR 1802.16.1</u>
- 10
  - 24 May 2002 Approved at 802.16 interim 28 May 2002 Submitted to SEC via reflector 8 July 2002 Discussed at SEC Meeting and LMSC Plenary (no comments received) 11 July 2002 Motion approved at 802.16 Closing Plenary: "To forward the draft PAR1802.16.1 in IEEE 802.16c-02/29 for SEC approval" (same document submitted to SEC under 30 day rule)
    - Approve: 42
- 20

15

- O Disapprove: 0
- Abstain: 1

#### Notes

- PAR Title: Draft Standard for Conformance to IEEE Standard 802.16 Part 1: Protocol Implementation Conformance Statement (PICS) Proforma for 10-66 GHz WirelessMAN-SC Air Interface
- Note: PAR is on NesCom "Continuous Processing" agenda for consideration during the week of 15 July.
  - PAR signature form has already been submitted.

## IEEE-SA Standards Board Project Authorization Request (PAR) Form (2002)

For a review of the Standards Development Process (designed to assist the Working Group, Working Group Chair, Sponsor Chair, and Society Liaison), please click here.

1. Assigned Project Number (Please contact the NesCom Administrator if this is a new PAR): P1802.16.1

2. Sponsor Date of Request: 12-Jul-02

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 Standard for Conformance to IEEE Standard 802.16 - Part 1: Protocol Implementation Conformance Statement (PICS) Proforma for 10-66 GHz WirelessMAN-SC Air Interface

5. Life Cycle

Full Use (5-year life cycle)

Trial Use (2-year life cycle)

6. Type of Project:

New standard

Revision of existing standard (indicate Number and year existing standard was published in box to the right) (###-YYYY)

Amendment to an existing standard (indicate Number and year existing standard was published in box to the right) (####-YYYY)

Corrigendum to an existing standard (indicate Number and year existing standard was published in box to the right) (####-YYYY)

Revised PAR (indicate PAR Number and Approval Date here: P - (YYYY-MM-DD)

Is this project in ballot now? No

State reason for revising the PAR in Item #18.

7. Contact information of Working Group Chair who must be an SA member as well as an IEEE and/or Affiliate Member

Name of Working Group(WG) : IEEE 802.16 Working Group on Broadband Wireless Access

Name of Working Group Chair: First Name: Roger Last Name: Marks Telephone: +1 (303) 497 3037 FAX: +1 (303) 497 7828 EMAIL: r.b.marks@ieee.org

8. Contact Information of Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair. The Official Report must be an SA member as well as an IEEE and/or Affiliate Member

Name of Official Reporter (if different than Working Group Chair): First Name: Last Name: Telephone: FAX: EMAIL:

9. Contact information of Sponsoring Society or Standards Coordinating Committee

Sponsoring Society and Committee: C/LM and MTT Sponsor Committee Chair: First Name: Paul Last Name: Nikolich Telephone: 978 749 9999 x246 FAX: 978 749 8888 EMAIL: p.nikolich@ieee.org

10. Sponsor Balloting Information (Please choose one of the following) Choose one from the following:
Individual Balloting
Entity Balloting
Mixed Balloting (combination of Individual and Entity Balloting)

Expected Date of Submission for Initial Sponsor Ballot: 15-Nov-02

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 revised PAR.

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

11. Projected Completion Date for Submittal to RevCom: 2-May-03

If this is a REVISED 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 revised PAR, please go to question #12

Statement of why the extension is required:

When did you begin writing the first draft?:

How many people are actively working on the project?:

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

How frequently is a draft version circulated to the working group via electronic means?:

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

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

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

## 12. Scope of Proposed Project

[Projected output including technical boundaries. REVISED STANDARDS - Projected output including the scope of the original standard, amendments and additions. Please be brief (less than 5 lines).]:

This standard represents the Protocol Implementation Conformance Statement (PICS) Proforma, per ISO/IEC Standard 9646-7 (1995) and ITU-T X.296, for conformance specification of base stations and subscriber stations based upon the WirelessMAN-SC (10-66 GHz) air interface specified in IEEE Std 802.16.

13. Purpose of Proposed Project:

[Intended users and user benefits. REVISION STANDARDS - Purpose of the original standard and reason for the standard's revision. Please be brief (less than 5 lines).]:

This document describes the capabilities and options within the WirelessMAN-SC (10-66 GHz) air interface specified in IEEE Std 802.16. It is to be completed by the supplier of a product claiming to implement the protocol. It indicates which capabilities and options have been implemented and what limitations might prevent interworking. It allows a customer of the product to evaluate its conformance and to determine whether the product meets the customer's requirements.

14. Intellectual Property {Answer each of the questions below}

Sponsor has reviewed the IEEE patent policy with the working group? Yes

Sponsor is aware of copyrights relevant to this project? Yes

Sponsor is aware of trademarks relevant to this project? Yes

Sponsor is aware of possible registration of objects or numbers due to this project?

No

15. Are there other standards or projects with a similar scope? No Explanation:

If Yes, please answer the following: Sponsor Organization: Project Number: Project Date: Project Title:

16. International Sponsor OrganizationIs there potential for this standard (in part or in whole) to be submitted to an international organization for review/adoption??? if you don't know at this time { Yes/No/?? if you don't know at this time}

If Yes, please answer the following questions: International Committee Name and Number: International Organization Contact Information: Contact First Name: Contact Last Name: Contact Telephone Number: Contact FAX Number: Contact E-mail address:

17. Will this project focus on health, safety or environmental issues? No{ Yes/No/?? if you don't know at this time} If Yes: Explanation? [ ]

18. Additional Explanatory Notes: {Item Number and Explanation} The standard will include access to an electronic form that will produce data transferable to another party. The standard will include permission to print completed hard copies of the form for documentation purposes.

The PAR Copyright Release and Signature Page must be submitted either by FAX to 732-562-1571 or as an e-mail attachment in .pdf format to the NesCom Administrator before this PAR will be sent on for NesCom and Standards Board approval.

	4.04 MI* Radio Resource Management SG - Kerry	0	01:15 PM
5	Moved: To affirm the formation of a Radio Resource Management study group in 802.11. Moved: Kerry/		
	4.05 MI* High Throughput SG - Kerry	0	01:15 PM_
10	Moved: To affirm the formation of a High Throughput study group in 802.11. Moved: Kerry/		
10	4.06 MI* 802.15.3a SG reauthorization until November 2002 - Heile	0	01:15 PM
	Moved: To reauthorize the 802.15.3a study group until the November 2002 plenary.		
15	Moved: Heile/		
13	4.07 ME Get IEEE 802 Program agreement approval - Nikolic	:h 10	01:15 PM
	Moved: to approve IEEE Get 802 program agreement Jerry Walker emailed to the SEC r 7/11/2002	eflector at 6:01	PM PDT
20	Moved: Thompson/Grow		
	The major change to the agreement from the previous revision was that a document available for revision will remain available through the program (for free) until the revision becomes available		
25	Passes: 10/0/0		
	4.08 ME 802.16c conditional approval to sponsor ballot - Marks	5	01:25 PM

## LMSC Motion: To grant Conditional Approval, in accordance with Procedure 10 of the IEEE 802 Operating Rules, to forward P802.16c for Sponsor Ballot

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	•	Seconde	d by: Bob Heile
35 40		History 24 May 2 approved 27 May 2 opened V 6 July 20	l initiation of WG Letter Ballot #6 at 802.16 Closing Plenary 002 VG Letter Ballot #6
			002 t 802.16 Closing Plenary: "To issue P802.16c/D2 (based on P802.16/D1 as updated by IEEE 802.16-32r3), initiate a recirculation, and conditional approval for LMSC Sponsor Ballot"
		0	Approve: 40
45		0	Disapprove: 0
		0	Abstain: 1

Moved by: Roger Marks

#### **Key Materials**

- Draft P802.16c/D1 •
- Comment Resolution Database ("Commentary" format) ٠

Letter Ballot #6 Results (details available)

Approve	Dis		Approval Ratio	Approval Ratio Condition Met (>50%)	Abstain	Ballot s	Member s	Ratio	Return Ratio Condition Met (>=50%)	Motion Approval Status
67	1	68	98.5%	Yes	14	82	119	68.9%	Yes	Approved, pending recirculation

Following Comment Resolution										
Approve	Dis	Votes	Approval Ratio	Approval Ratio Condition Met (>50%)	Abstain	Ballot s	Member s	Ratio	Return Ratio Condition Met (>=50%)	Motion Approval Status
58	0	68	100%	Yes	14	82	119	68.9%	Yes	Approved, pending recirculation

Notes

We received only one Disapprove comment. It was accepted. The voter has accepted the detailed resolution and changed vote to "Approve": •

- From: "Avi Freedman"
- To: "Roger B. Marks" •
- Cc: "Ken Stanwood" •
  - Subject: Re: disapprove comment in letter ballot #6 •
  - Date: Thu, 11 Jul 2002 18:02:45 +0200 •

  - Roger, Ken
- I am fully satisfied with the resolution, and I am changing my vote to "approve"

  - Thank you •
- 20

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- Avi Freedman •
- Will recirculate Draft 2 with comment resolutions. .
- Formation of Sponsor Ballot Group is underway.



01:30 PM

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## LMSC Motion: To grant Conditional Approval, in accordance with Procedure 10 of the IEEE 802 Operating Rules, to forward P802.16a for Sponsor Ballot

- Moved by: Roger Marks
- Seconded by: Stuart Kerry
- Title: Air Interface for Fixed Broadband Wireless Access Systems Medium Access Control Modifications and Additional Physical Layer Specifications for 2-11 GHz History

24 May 2002

approved initiation of WG Letter Ballot #7 at 802.16 Closing Plenary 28 May 2002

- opened WG Letter Ballot #7
- 7 July 2002
  - closed WG Letter Ballot #7
  - 11 July 2002
- 20 Motion approved at 802.16 Closing Plenary: "To initial recirculation ballot of P802.16a/D4, as updated by 80216a-02/33r2, and request conditional approval for LMSC Sponsor ballot."
  - O Approve: 42
  - Disapprove: 0
  - O Abstain: 0

#### Key Materials

25 • Draft P802.16a/D4

5

10

15

- <u>15 Remaining Disapprove Comments</u>
- Full Comment Resolution Database ("Commentary" format)

#### Letter Ballot #7 Results (details available)

Approve	Dis		Approval Ratio	Approval Ratio Condition Met (>50%)	Abstain	Ballot s	Member s	Ratio	Return Ratio Condition Met (>=50%)	Motion Approval Status
81	6	87	93.1%	Yes	5	92	119	77.3%	Yes	Yes

**Remaining Disapprove Voters and Disapprove (Binding) Comments** 

Voter	Before Resolution	After Resolution
Kolze	24	9
van Waes	4	4
Trinkwon	6	1
Lycklama	1	1
Edmonston	1	0 (switched vote to Approvel; see below)
Seller	1	0 (comment accepted; member not present)
Total	37	16

From: "Brian Edmonston"

30

```
To: "Roger B. Marks"

Cc: "SELLER Olivier FTRD/DMR/REN"

Subject: Disapprove Vote

Date: Thu, 11 Jul 2002 20:15:49 -0700

5

Hello Roger,

I am withdrawing my disapproval vote based on the comment resolution that

took place this week.

Regards.

-Brian

15 iCODING Technology Inc

Notes

• Will recirculate Draft 4 with comment resolutions.
```

- Formation of Sponsor Ballot Group is underway.
- 20 With respect to the disapprove voters that were present at this meeting, are they included in the 42 that voted to approve the motion to forward to sponsor ballot? At least 3 of the 4 that were present at the meeting this week were in the room when the vote was taken.

Passes: 10/0/0

4.10 MI	Affirmation of 802.16 Mobile Wireless MAN SG	- Marks	10	01:52
				PM

## To affirm formation of the IEEE 802.16 Study Group on Mobile WirelessMAN

- Moved by: Roger Marks
- Seconded by: Stuart Kerry

11 July 2002

Motion approved at 802.16 Closing Plenary: "Create the 802.16 Working Group Study Group on Mobile WirelessMAN. The group will address enhancements to the IEEE 802.16a PHY/MAC to support mobile operation, including cell-to-cell and sector-to-sector handoff capability as well as other protocol/MIB support." (see <u>backup material</u>)

35

30

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- Approve: 19
  - O Disapprove: 13
  - O Abstain: 9

This is different from the EC SG. This is looking at the existing standard and determining if there is possibility to add limited mobility.

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Passes: 10/0/1
```

4.11 MI 802.16 Mobile BWA Study Group - Marks/Klerer 10 01:35 PM

## IEEE 802.16 Study Group on Mobile Broadband Wireless Access

45

On 15 March 2002, the IEEE Working Group 802.16 on Broadband Wireless Access initiated (with the later approval of the IEEE 802 LMSC Sponsor Executive Committee) the IEEE 802.16 Study

# Group on Mobile Broadband Wireless Access (MBWA) Networks. The Study Group is chartered to operate through 12 July 2002.

5

### Moved: To establish an Executive Committee Study Group to continue the MBWA SG work.

#### **Moved:** Thompson/Jeffree

10 Given the length of time this SG has been meeting, it is not desirable to allow them to go forward with such a broad scope. LMSC has had difficulties when issuing charters that are too broad. This work would be to develop a standard tailored for carrying data traffic, as opposed to the optimizations made by cellular standards.

It is recommended that the SG narrow their scope and come back at the next plenary.

15

802.16 recommended not to support the formation of an EC SG.

#### Passes: 6/1/4

20 Paul appoints Mark Klerer to be the chair of the SG, and that the SG conduct elections at its next meeting

## Moved: To charter an EC SG until the close of the November 2002 plenary, with Mark Klerer as the interim chair Moved: Thompson/Kerry

25 Passes: 9/0/0

Final Report of the 802.16 MBWA SG and Proposal to Charter a Broadband Mobile Wireless Access Executive Committee SG

# Presentation to IEEE 802 Executive Committee

Mark Klerer 802.16 MBWA SG Chair 12 July 2002

# Accomplishments at July SG Meeting

- Agreement on the need for 2 PARs. One for Vehicular Mobility and one for Enhancements to 802.16, including support for mobility with limited velocity. Agreed to focus on first PAR
- Developed and approved Vehicular Mobility PAR
- Developed and approved "Five Criteria" for Vehicular Mobility
- Developed recommendation on placement of work within IEEE 802
- Proposed continuation of MBWA SG effort

# Motion to Establish an Executive Committee Study Group to Continue the MBWA SG Work

Establish an Executive Committee MBWA Study Group with the following scope and charter:

—Scope: Mobile Broadband Wireless Access Network Operating in Licensed Frequency Bands and Supporting Mobility at Vehicular Speeds

—Charter: The MBWA Study Group is responsible for activities leading to the authorization of a Mobile Broadband Wireless Access project within IEEE 802. In particular the SG shall:

- Develop the PAR for MBWA;
- Complete the Five Criteria for MBWA; and

 Make a recommendation on the placement of the project within IEEE 802 and/or existing Working Groups

# APPROVED BY MBWA SC

# **Dissolution of the MBWA SG**

• At the closing plenary 802.16:

- Rejected the PAR and Five Criteria instead of providing the SG with the opportunity to address any issues they may have had with the documents
- Rejected the SG recommendation to recharter the MBWA SG as an ECSG

# **History – March Meeting**

- Tutorial and Call for Interest session on initiating mobility work within 802 held March 11-12, 2002.
- Proposal was to ask for an Executive Committee Level SG to address mobility.
- In an informal poll, proposal was made to charter the group instead as an SG in 802.16
- Proposal was accepted with the understanding that the SG would be free to consider all solutions and make recommendation on final placement of work
- The placement of the SG in 802.16 was not intended to restrict the ability of the SG to recommend placement of the project outside of 802.16 or to require the SG to only consider the 802.16 standards as a basis for the work.

# **History – May Meeting**

- From the initial SG meeting, limiting the solution space to only extensions of 802.16 became an issue.
- Presentations were made indicating why in the opinion of some experts 802.16 could not provide an efficient solution to vehicular mobility
- No contributions were received that demonstrated that 802.16 was either a viable or appropriate baseline for a new MBWA standard

# **Proposal for a Motion**

 In light of the industry interest and the successful drafting of a PAR and Five Criteria by the MBWA SG it is moved that: The Executive Committee re-establish the MBWA as an ECSG, in order to complete its previous mandate and provide the industry with the best possible solution to mobile data communications at vehicular speeds without a priori exclusion of any particular technologies.

# Motion to Establish an Executive Committee Study Group to Continue the MBWA SG Work

Establish an Executive Committee MBWA Study Group with the following scope and charter:

—Scope: Mobile Broadband Wireless Access Network Operating in Licensed Frequency Bands and Supporting Mobility at Vehicular Speeds

-Charter: The MBWA Study Group is responsible for activities leading to the authorization of a Mobile Broadband Wireless Access project within IEEE 802. In particular the SG shall:

- Develop the PAR for MBWA;
- Complete the Five Criteria for MBWA; and

 Make a recommendation on the placement of the project within IEEE 802 and/or existing Working Groups

# APPROVED BY MBWA SC

#### 4.12 ME Response to FCC Spectrum Mgt TF RFC - Stevenson 10 02:39 PM

Moved: To approve 18-02-013d8, empowering the Chair of 802.18 to do editorial changes, update revision numbers as required, format appropriately, and to file the document with the FCC on behalf of IEEE 802.

5

Moved: Stevenson/O'Hara

Passes: 10/0/0

10

4.13	ME	Authorize Stevenson to represent LMSC at FCC	-	Stevenson	1	02:44
						PM

Moved: To authorize Carl Stevenson to act as the official representative of IEEE 802 at the FCC Spectrum Policy Task Force's workshops, with the understanding that Mr. Stevenson will clearly and accurately represent only the approved positions.

15

Moved: Stevenson/Rigsbee

Passes: 10/0/0

20

4.14 ME	Comment supporting IWG-5 on WRC-03 item 1.5	-	Stevenson	10	02:47
					PM

Moved: To approve document 18-02-107d0 empowering the chair of 802.18 to do editorial changes, update revision numbers as required, format appropriately, and to file the document with the FCC on behalf of IEEE 802

25 Moved: Stevenson/Kerry

Passes: 8/0/1

4.15 ME	Letter to CITEL PCC III	-	Stevenson	10	02:52
					PM

#### 30

Moved: To empower the Chair of 802.18 to do editorial changes and format appropriately, to create an information paper for potential submission to the CITEL PCC III regional regulatory conference being held July 15-19, 2002 in Fortaleza Brazil, and authorize Mr. Stevenson to present the paper if accepted by the assembly.

#### 35 Moved: Stevenson/Heile

Passes: 8/0/1

4.16 ME	Reply to FCC on ARRL response	-	Stevenson	10	02:56
					PM

#### 40

Moved: To approve document 18-02-015r0, empowering the Chair of 802.18 to do editorial changes, update revision numbers, format appropriately, and to file the document with the FCC on behalf of IEEE 802.

Moved: Stevenson/Heile

45

Passes: 7/0/2

	4.17 MI	802.18 TAG Charter	- Stevenson	10	02:36 PM						
	Moved: To ap	prove the 802.18 TAG Charter, as contained in document 18-02	2—012r0.								
-	Moved: Stever	Moved: Stevenson/O'Hara									
5	Passes: 5/0/4										
	4.18 MI	TAG operation rules change	- Stevenson	10	02:59 PM						
10		mmence an LMSC rules change relating to TAGs as proposed i 802 or his designate to commence the rules change process in a									
	Moved: Stever	nson/Rigsbee									
15	Passes: 10/0/0										
15	4.19 MI	Operation of 802.18 under proposed rules	- Stevenson	10	03:03 PM						
		horize the 802.18 TAG to operate provisionally under the rules ge is in process.	proposed in the abov	e rules ch	ange, while						
20	Moved: Stever	nson/Kerry									
	Passes: 9/0/1										
25	Moved: to affi	rm the election of Carl Stevenson as elected chair of 802.18 TA	G								
23	Moved: Kerry/Thompson										
	Passes: 9/0/0										
30	4.20 ME	802.1s conditional approval for sponsor ballot	- Jeffree	5	03:06 PM						

Moved: to conditionally approve forwarding 802.1s (Multiple Spanning Tree) to sponsor ballot, according to Procedure 10, pending completion of the working group recirculation ballot of D14.

#### 35 Moved: Jeffree/Heile

Passes: 9/0/0

### DISPOSITION OF BALLOT COMMENTS ON

### IEEE Draft P802.1s/D13

### Standard for Local and Metropolitan Area Networks—Amendment 3 to 802.1Q Virtual Bridged Local Area Networks: Multiple Spanning Trees

### Sponsor

#### LAN MAN Standards Committee of the IEEE Computer Society

#### Prepared by: Tony Jeffree, Project Editor

Tony Jeffree, 11a Poplar Grove, Sale, Cheshire, M33 3AX, UK Tel: +44-161-973-4278 Fax: +44-161-973-6534 Email: tony@jeffree.co.uk

#### Commentary:

This Disposition of Ballot Comments has been prepared to document the ballot comments received in the working group recirculation ballot on P802.1s/D13, and to record the resolutions of those ballot comments, agreed during the meeting of 802.1 held in Vancouver, July 2002. The document contains:

- 1) A table of responses received.
- 2) A listing of comments received, each accompanied by a disposition.

This document constitutes a record of the Instructions to the Editors for the preparation of P802.1s/D14.

1	1.	Table of Responses	 4
2	2.	Ballot Comments	 6
3	4.	Danot Comments	 0
4		Comment 1:	6
5		Comment 2:	
6		Comment 3:	
7		Comment 4:	
8		Comment 5:	7
9		Comment 6:	 8
		Comment 7:	 8
10		Comment 8:	 9
11		Comment 9:	 9
12		Comment 10:	 10
13		Comment 11:	 10
14		Comment 12:	 10
15		Comment 13:	 11
		Comment 14:	 12
16		Comment 15:	 12
17		Comment 16:	 12
18		Comment 17:	 13
19		Comment 18:	 13
20		Comment 19:	 14
21		Comment 20:	 14
22			
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### 1. Table of Responses

The following table indicates the status of each ballot response received in the P802.1s/ D13 ballot. Where comments have been received without an accompanying ballot, this is indicated in the *Comments* column. The Status column indicates the voting status of the responder. *Voting* indicates 802.1 voting member at the start of the ballot period. *Liaison* indicates liaison member with voting status. *Comment* indicates a contributor without voting status at the start of the ballot period. *N/A* indicates that membership status does not apply, for example in a Task Group ballot. The *Vote* column indicates the vote cast; Y=Approve, N=Disapprove, T=Abstain due to lack of time, E=Abstain due to lack of expertise, O=Abstain for other reasons, C=Comments only.

STATUS	VOTE	NAME	COMMENTS
NV		V. Rajaguru	
V	Y	Paul Congdon	
V	Y	Hesham Elbakoury	
V	Y	Ran Ish-Shalom	
V	Y	Neil Jarvis	
V	Y	Tony Jeffree	
V	Y	Shyam Kaluve	
V	Y	Hal Keen	
V	Y	Loren Larsen	
V	Y	Mick Seaman	Y
V	Y	Michel Thorsen	
V	Y	Michael Wright	
V	Ν	Les Bell	Y

Table 1—Table	of responses
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CATEGORY	TOTAL	PERCENTAGE
Yes	11	92%
No	1	8%
Abs. Time	0	0%
Abs. Expertise	0	0%
Abs. Other	0	0%
No. of Voters	16	
Voters responding	12	75%
No. of Liaisons	N/A	
Liaisons responding	0	
Number of comments	47	

Table 2—Results

2. Ballot	Comments
Commer	nt 1
NAME:	Mick Seaman
COMMEN	ГТҮРЕ: Е
CLAUSE:	
PAGE:	2
LINE:	
COMMENT	
	cription of text status and work to date is seriously out of date.
COMMENT	I END: ED CHANGES START:
	rected version for the archive, describing history to date, prior to deleting for
sponsor ball	
1	ED CHANGES END:
5000001	
Disnosit	ion of Comment 1
_1000010	
Accept	
Commen	nt 2
NAME:	Mick Seaman
COMMENT	
CLAUSE:	3.29
PAGE:	10
LINE:	29,31
COMMEN	
	ation MCID is not defined.
COMMEN	
	ED CHANGES START:
	MST Configuration Identifier" for "MCID".
SUGGESTI	ED CHANGES END:
Disposit	ion of Comment 2
Accept	
Commen	nt 3
NAME:	Mick Seaman
COMMENT	

CLAUSE: 3.37	1
PAGE: 11	2
LINE: 12	3
COMMENT START:	4
Incorrect reference. It has been previously stated that references to .1D are to the rolled up	5
version $(1D + 1w \text{ etc.})$	6
COMMENT END:	7
SUGGESTED CHANGES START:	8
Remove "-1998".	9
SUGGESTED CHANGES END:	10
	11
Disposition of Comment 3	12
•	13
Accept	14
Accept	15
Comment 4	16
Comment 4	17
	18
NAME: Mick Seaman	19 20
COMMENT TYPE: E	20
CLAUSE: 6.3.1	21
PAGE: 15	22
LINE: 17	23
COMMENT START:	25
One of a number of spanning tree protocols may be used. COMMENT END:	26
SUGGESTED CHANGES START:	27
Replace "the Spanning Tree" with "a Spanning Tree".	28
SUGGESTED CHANGES END:	29
	30
Disposition of Comment 4	31
	32
• .	33
Accept	34
	35
Comment 5	36 37
	38
NAME: Mick Seaman	39
COMMENT TYPE: E	40
CLAUSE: 6.3.1	41
PAGE: 15	42
LINE: 23	43
COMMENT START:	44
A conjunction rather than the indefinite article is required between 6.3.3 and 6.3.4.	45
COMMENT END:	46

1 2 3 4	SUGGESTED CHANGES START: Replace "an" with "and". SUGGESTED CHANGES END:
5 6	Disposition of Comment 5
7 8 9	Accept
9 10 11	Comment 6
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	NAME: Mick Seaman COMMENT TYPE: E CLAUSE: 6.3.2 PAGE: 16 LINE: 23 COMMENT START: Bullet 7) is logically an explanation of the potential effects of bullet 6, not a list item in itself. COMMENT END: SUGGESTED CHANGES START: Replace bullet 7) with a NOTe, usuing exactly the same text for the note. SUGGESTED CHANGES END: <b>Disposition of Comment 6</b>
27 28 29	Accept
30 31	Comment 7
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	NAME: Mick Seaman COMMENT TYPE: E CLAUSE: 8.1.2.2 PAGE: 31 LINE: 26 COMMENT START: The inclusion of "XXX" in the reference is presumably a marker to check the reference or use a real reference instead of text. COMMENT END: SUGGESTED CHANGES START: Update the reference and remove the "XXX". SUGGESTED CHANGES END:

Disposition of Comment 7	1 2
Accept	3 4
Comment 8	5 6 7
NAME: Mick Seaman COMMENT TYPE: E	7 8 9
CLAUSE: 8.1.2.3 PAGE: 32	10 11
LINE: 4 COMMENT START:	12 13
The inclusion of "XXX" in the reference is presumably a marker to check the reference or use a real reference instead of text. COMMENT END:	14 15 16
SUGGESTED CHANGES START: Update the reference and remove the "XXX".	10 17 18
SUGGESTED CHANGES END:	19 20
Disposition of Comment 8	21 22 23
Accept	23 24 25
Comment 9	26 27
NAME: Mick Seaman COMMENT TYPE: E	28 29
CLAUSE: Table 8-1 PAGE: 42	30 31 32
LINE: 24 COMMENT START: The first column heading denotes the "Received User Prioirty", not any other user priority	33 34
under discussion. COMMENT END:	35 36
SUGGESTED CHANGES START: Replace the heading "User Priority" with "Received user priority". SUGGESTED CHANGES END:	37 38 39
Disposition of Comment 9	40 41 42
Accept	43 44 45
	46

#### Comment 10

2	
3	NAME: Mick Seaman
4	COMMENT TYPE: E
5	
6	CLAUSE: 8.6.2
7	PAGE: 44
8	LINE: 32
9	COMMENT START:
10	The acronym MCT is nowhere defined.
11	COMMENT END:
12	SUGGESTED CHANGES START:
12	Delete "MCT".
13	SUGGESTED CHANGES END:
14	

#### **Disposition of Comment 10**

Accept

#### 18 19 20

15

16 17

1

#### Comment 11

21 22

23

NAME:	Mick Seaman
COMPEN	T T V D E, E

- 24 COMMENT TYPE: E 25 CLAUSE: 8.10.7
- 25 CLAUSE: 8. 26 PAGE: 61
- 26 PAGE: 27 LINE:
- 27 LINE: 1 28 COMMENT START:
- We agreed to remove the notation maxSupportedSTs in D12 ballot resolution.One instance has been missed here.
- 30 COMMENT END:
- 32 SUGGESTED CHANGES START:
- Replace maxSupportedSTs -1 with a reference to the maximum number of MSTIs.
   SUGGESTED CHANGES END:

### SUGGESTED CHANGES END.

### **Disposition of Comment 11**

- Accept
- 39

35

36 37 38

#### 40 41

42 43 NAME: Mick Seaman

Comment 12

- 44 COMMENT TYPE: E
- 45 CLAUSE: 8.10.7.1
- 46 PAGE: 61

"FID X" is not defined.       3         COMMENT END:       4         SUGGESTED CHANGES START:       5         Replace the two instances of "to FID X" with "to a specific FID".       6         SUGGESTED CHANGES END:       7         Disposition of Comment 12       9         Accept       11         Accept       12         Comment 13       13         NAME:       Mick Seaman         COMMENT TYPE: ER       17         CLAUSE:       8.12         PAGE:       67         LINE:       35 and following         COMMENT START:       21         This clause contains some outdated notions that have been completely superseded by the         rest of the document. Since they are purely tutorial they can be simply and safely deleted.       24         icantly mislead new reviewers who have not participated to date, and solicit wide ranging       26         and unfocused comments that may be difficult to close.       26         Since the statements made here are in the form of a commentary, and do not contain any       27         direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by       28         there sto fit be document I believe these changes, which introduce nothing new are edito-       30         COMMENT END:	LINE: 10,12 COMMENT START:	1 2 2
SUGGESTED CHANGES START:       5         Replace the two instances of "to FID X" with "to a specific FID".       6         SUGGESTED CHANGES END:       8         Disposition of Comment 12       9         Accept       11         Comment 13       13         NAME:       Mick Seaman         COMMENT TYPE: ER       17         CLAUSE:       8.12         PAGE:       67         LINE:       35 and following         COMMENT START:       20         This clause contains some outdated notions that have been completely superseded by the         rest of the document. Since they are purely tutorial they can be simply and safely deleted.         1 feel that it is important that we do this before going to opsnosr ballot as they could significantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.       26         Since the statements made here are in the form of a commentary, and on not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are edioritrial.       31         SUGGESTED CHANGES START:       32         Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree P		
Replace the two instances of "to FID X" with "to a specific FID".       6         SUGGESTED CHANGES END:       7         Disposition of Comment 12       0         Accept       11         Comment 13       13         NAME:       Mick Scaman         COMMENT TYPE: ER       16         CLAUSE:       8.12         PAGE:       67         LINE:       35 and following         COMMENT START:       19         This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted.         Ciently mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.         Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editorial.       30         COMMENT END:       31         SUGGESTED CHANGES START:       31         Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol" with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and an associated protocol (STP, RSTP, or MSTP)."       31         Delet the sentence "In an MST environment the bridge protocol operated" with "the numbers of spanni		
SUGGESTED CHANGES END:       7         Disposition of Comment 12       9         Accept       11         Comment 13       13         NAME:       Mick Seaman         COMMENT TYPE: ER       16         COMMENT TYPE: ER       17         CLAUSE:       8.12         PAGE:       67         LINE:       35 and following         COMMENT START:       20         This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted.         I feel that it is important that we do this before going to sponsor ballot as they could signif-         icantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.         Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the trest of the document I believe these changes, which introduce nothing new are editorial.         COMMENT END:       31         SUGGESTED CHANGES START:       31         Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and an associated protocol (STP, RSTP, or MSTP)."       31         Delete the sentence "In an MST e		
Disposition of Comment 129Accept11Comment 1313NAME:Mick SeamanCOMMENT TYPE: ER17CLAUSE:8.12PAGE:67LINE:35 and followingCOMMENT START:This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted. I feel that it is important that we do this before going to sponsor ballot as they could signif- icantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editor- ral.COMMENT END:SUGGESTED CHANGES START:Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol" with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol (with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and 	1	
Accept       10         Accept       11         Comment 13       13         NAME: Mick Seaman       16         COMMENT TYPE: ER       16         CLAUSE: 8.12       18         PAGE: 67       19         LINE: 35 and following       20         COMMENT START:       11         This clause contains some outdated notions that have been completely superseded by the       22         rest of the document. Since they are purely tutorial they can be simply and safely deleted.       23         I feel that it is important that we do this before going to sponsor ballot as they could significantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.       26         Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editorial.       30         COMMENT END:       32         SUGGESTED CHANGES START:       32         Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operated of the spanning trees in the MST bridges ICAN."       38         Replace "the number of instances of the Spanning T		
Accept10Accept11Comment 1313NAME:Mick SeamanCOMMENT TYPE: ER17CLAUSE:8.12PAGE:67LINE:35 and followingCOMMENT START:20This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted.I feel that it is important that we do this before going to sponsor ballot as they could signif- teantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editorial.COMMENT END:32SUGGESTED CHANGES START: Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol entities of MST bridges communicate by exchanging BPDUs independently for each of the spanning trees in the MST bridged LAN." Replace "the number of instances of the Spanning Tree Protocol operated" with "the num- bers of spanning trees operated". SUGGESTED CHANGES END:Disposition of Comment 13Applace in the Augern 13	Disposition of Comment 12	
Accept12 <b>Comment 13</b> 14NAME: Mick Seaman16COMMENT TYPE: ER17CLAUSE: 8.1218PAGE: 6719CINE: 35 and following20COMMENT START:11This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted. I feel that it is important that we do this before going to sponsor ballot as they could signif- icantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.26Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are edito- rial.31COMMENT END: SUGGESTED CHANGES START: Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and an associated protocol (STP, RSTP, or MSTP)."33Delete the sentence "In an MST environment the bridge protocol entities of MST bridges communicate by exchanging BPDUs independently for each of the spanning trees in the MST bridged LAN."36Replace "the number of instances of the Spanning Tree Protocol operated" with "the num- bers of spanning trees operated".37Bisposition of Comment 1343Misposition of Comment 1344Suggestion of Comment 1344		10
Comment 13       13         NAME:       Mick Seaman       16         COMMENT TYPE: ER       17         CLAUSE:       8.12       18         PAGE:       67       19         LINE:       35 and following       20         COMMENT START:       11       21         This clause contains some outdated notions that have been completely superseded by the rest of the document. Since they are purely tutorial they can be simply and safely deleted.       22         I feel that it is important that we do this before going to sponsor ballot as they could significantly mislead new reviewers who have not participated to date, and solicit wide ranging and unfocused comments that may be difficult to close.       26         Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editorial.       31         COMMENT END:       31         SUGESTED CHANGES START:       31         Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning trees in the MST bridged LAN."		11
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NAME:Mick Seaman15NAME:Mick Seaman16COMMENT TYPE:ER17CLAUSE:8.1218PAGE:6719LINE:35 and following20COMMENT START:21This clause contains some outdated notions that have been completely superseded by the22I feel that it is important that we do this before going to sponsor ballot as they could significantly mislead new reviewers who have not participated to date, and solicit wide ranging26and unfocused comments that may be difficult to close.26Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are editorial.30COMMENT END:3131SUGGESTED CHANGES START:32Replace "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and Protocol." with "The Spanning Tree Protocol Entity operates of MST bridges communicate by exchanging BPDUs independently for each of the spanning trees in the MST bridged LAN." Replace "the number of instances of the Spanning Tree Protocol operated" with "the numbers of spanning trees operated". SUGGESTED CHANGES END:43Disposition of Comment 1343Disposition of Comment 1343At a tister of instances of the Spanning Tree Protocol operated" with "the numbers of spanning trees operated". SUGGESTED CHANGES END:43At a tister of ins		13
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2728Since the statements made here are in the form of a commentary, and do not contain any direct mandatory provisions, and are directly, exhaustively, and in detail, contradicted by the rest of the document I believe these changes, which introduce nothing new are edito- rial.2728292920202021202220232024252526262727282829292920292020212022202320242925202627272828292929202021212221232324232521262127232829292920212121222123212423252126212723282929212021212122222323242425242624272527252829292929		
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Acplace The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and34Protocol." with "The Spanning Tree Protocol Entity operates the Spanning Tree Algorithm and an associated protocol (STP, RSTP, or MSTP)."35Delete the sentence "In an MST environment the bridge protocol entities of MST bridges communicate by exchanging BPDUs independently for each of the spanning trees in the MST bridged LAN."36Replace "the number of instances of the Spanning Tree Protocol operated" with "the numbers of spanning trees operated".39SUGGESTED CHANGES END:41Disposition of Comment 1344		
11000001. With The Spanning Tree Protocol Entity operates the Spanning Tree Algo3520100000000000000000000000000000000000		
Delete the sentence "In an MST environment the bridge protocol entities of MST bridges communicate by exchanging BPDUs independently for each of the spanning trees in the MST bridged LAN."36 37 38 38 38 39 40 40 SUGGESTED CHANGES END:36 37 38 39 41 42 43 44 45		
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38MST bridged LAN."Replace "the number of instances of the Spanning Tree Protocol operated" with "the numbers of spanning trees operated".SUGGESTED CHANGES END:4142Disposition of Comment 1344		
Replace "the number of instances of the Spanning Tree Protocol operated" with "the numbers of spanning trees operated".39SUGGESTED CHANGES END:40Disposition of Comment 13424344		
bers of spanning trees operated". SUGGESTED CHANGES END: Disposition of Comment 13 40 41 42 43 44 43 44	•	39
SUGGESTED CHANGES END:       41         Disposition of Comment 13       42         43       44         45       45	• • • •	40
42         43           43         44           45         45		41
<b>Disposition of Comment 13</b> 44 45		42
44 45	Disposition of Commont 12	43
		44
Accept 46		45
	Accept	46

#### Comment 14

1

2 3

- NAME: Mick Seaman
- 4 COMMENT TYPE: E
- 5 CLAUSE: Figure 8-12
- $\begin{array}{c} 6 \\ 7 \end{array} \quad \begin{array}{c} \text{PAGE:} & 74 \end{array}$
- 7 LINE: 26
- 8 COMMENT START:
- 9 The left hand switch contact is missing its solder blob.
- 10 COMMENT END:
- 11 SUGGESTED CHANGES START:
- Add a black circle to the LHS switch contact as has been done for the RHS (i.e. change the starting line ending for the arow concerned).
- 14 SUGGESTED CHANGES END:

### **Disposition of Comment 14**

Accept

16

17 18 19

20 21

22

### Comment 15

- 23 24 NAME: Mick Seaman
- 25 COMMENT TYPE: E
- 26 CLAUSE: 11.2.3.3
- 27 PAGE: 79
- 28 LINE: 46
- 29 COMMENT START:
- The description "the base spanning tree" is outdated terminology, and should be changed to clarify the fit between this clause and the rest of the document.
- 31 to clarify the fit betw 32 COMMENT END:
- 32 33 SUGGESTED CHANGES START:
- Replace "on the base spanning tree" with "on the CST".
- 35 SUGGESTED CHANGES END:
- 36 37

### Disposition of Comment 15

- 38 39
- 39<br/>40Accept

### Comment 16

42 43

41

- 44 NAME: Mick Seaman
- 45 COMMENT TYPE: E
- 46 CLAUSE: 12.1.1 d)

PAGE: 81	1
LINE: 37	2
COMMENT START:	3
More than one spanning tree may be configured.	4
COMMENT END:	5
SUGGESTED CHANGES START:	6
Replace "of the spanning tree" with "of a spanning tree".	7
SUGGESTED CHANGES END:	8
	9
Disposition of Comment 16	10
	11
	12
Accept	13
	14
Comment 17	15
	16
NAME: Mick Seaman	17
COMMENT TYPE: E	18
CLAUSE: 12.2	19
PAGE: 82	20
LINE: 28,29	21
COMMENT START:	22
Incorrect reference. It has already been stated that references to 802.1D are to the rolled up	23
versiob.	24
COMMENT END:	25
SUGGESTED CHANGES START:	26
Replace "and IEEE STd 802.1w Clause 17" with simply "and Clause 17".	27
	28
Disposition of Comment 17	29
	30
	31
Accept	32
	33
Comment 18	34
	35
SUGGESTED CHANGES END:	36
	37
NAME: Mick Seaman	38
COMMENT TYPE: E	39
CLAUSE: 12.4.1.1.3 a)	40
PAGE: 84	41
LINE: 121	42
COMMENT START:	43
RSTP has been omitted.	44
COMMENT END:	45
	46

1	SUGGESTED CHANGES START:
2	Refer also to the Rapid Spanning Tree Protocol.
3	SUGGESTED CHANGES END:
4	
5	Disposition of Comment 18
6	Disposition of comment to
7	
8	Accept
9	
10	Comment 19
11	
12	NAME: Mick Seaman
13	
14	COMMENT TYPE: T
15	CLAUSE: 12.8.2.4.4
16	PAGE: 101
17	LINE: 6
18	COMMENT START:
19	Incorrect procedure description, .1D Clause 17.5 does not specify MSTI port state.
20	COMMENT END:
20	SUGGESTED CHANGES START:
	Substitute reference to the MSTI state machine variables.
22	SUGGESTED CHANGES END:
23	
24	Disposition of Comment 19
25	
26	Assessed
27	Accept
28	
29	Comment 20
30	
31	NAME: Mick Seaman
32	COMMENT TYPE: T
33	CLAUSE: 12.10.1.1.3 a)
34	PAGE: 105
35	LINE: 45
36	COMMENT START:
37	It would be good to know if there was ever a Version Number 0, and if so what that speci-
38	fied.
39	COMMENT END:
40	SUGGESTED CHANGES START:
41	Add note to state that no other version numbers have been specified as of the date of
42	approval this specification.
43	SUGGESTED CHANGES END:
44	SUGGESTED UNAINGES EIND.
45	
46	

Disposition of Comment 20	1 2
Accept in principle. Roll the rev number to 2, and state that prior versions not implement- ing MST use version 1, and no other versions are specified.	2 3 4 5
Comment 21	6 7
NAME: Mick Seaman	8 9
COMMENT TYPE: E	10
CLAUSE: 12.10.3.9.4	11
PAGE: 115 LINE: 12-14	12 13
COMMENT START:	13
The procedure should also state that the MSTP state machine variables are reinialized by	15
asserting BEGIN. Thius information is available elsewhere but should be here.	16
COMMENT END:	17
SUGGESTED CHANGES START:	18
Add statement as per comment.	19
SUGGESTED CHANGES END:	20
	21 22
Disposition of Comment 21	23
	24
Accept	25
	26
Comment 22	27
	28
NAME: Mick Seaman	29 30
COMMENT TYPE: E	31
CLAUSE: 12.12.1 PAGE: 117	32
LINE: 23	33
COMMENT START:	34
The statement "The Bridge runs an instance of the MSTP for each MSTID in the list" is	35
out of place here, since it is not the purpose of this clause to define the bridge operation,	36
only to state how the management variables report on or modify the variables that control	37 38
that operation. It is also, of course, wrong as is easily ascertained by reference elsewhere.	39
COMMENT END: SUCCESTED CHANCES START.	40
SUGGESTED CHANGES START: Delete the offending statement.	41
SUGGESTED CHANGES END:	42
	43
	44
	4.7
	45 46

## Disposition of Comment 22

Accept

1 2 3

4 5

6

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21 22

23 24

25 26

#### Comment 23

7	
8	NAME: Mick Seaman
9	COMMENT TYPE: E
10	CLAUSE: 12.12.3.2.2
11	PAGE: 120
12	LINE: 26
13	COMMENT START:
14	Incorrect article.
15	COMMENT END:
16	SUGGESTED CHANGES START:
17	Replace "A MSTID" with "An MSTID".
18	SUGGESTED CHANGES END:
19	

### **Disposition of Comment 23**

Accept

#### Comment 24

27 NAME: Mick Seaman

- 28 COMMENT TYPE: E
- 29 CLAUSE: 13.11
- 30 PAGE: 136
- 31 LINE: 44,45
- 32 COMMENT START:
- 33 Surplus brackets.
- 34 COMMENT END:

Accept

- 35 SUGGESTED CHANGES START:
- Remove one closing bracket after each of RRootID and IntRootPathCost, and one opening
- 37 bracket before P subscript D.
- 38 39 SUGGESTED CHANGES END:

#### 39 40

### **Disposition of Comment 24**

- 41 42
- 43 44
- 45
- 46

Comment 25	1 2
NAME: Mick Seaman	3
COMMENT TYPE: E	4
CLAUSE: 13.17	5
PAGE: 147	6
LINE: 26	7
COMMENT START:	8
Missing conjuction.	9
COMMENT END:	10
SUGGESTED CHANGES START:	11
Insert "and" before "do not therefore".	12
SUGGESTED CHANGES END:	13
	14
Disposition of Comment 25	15
	16
	17
Accept	18
	19
Comment 26	20 21
	21
NAME: Mick Seaman	22
COMMENT TYPE: E	23
CLAUSE: Figure 13-9	25
PAGE: 149	26
LINE:	27
COMMENT START:	28
The box around PORT RECEIVE is blue, as are two arrows to its right.	29
COMMENT END:	30
SUGGESTED CHANGES START:	31
Convert all lines to black.	32
SUGGESTED CHANGES END:	33
	34
Disposition of Comment 26	35
	36
Accept	37
•	38
Comment 27	39
	40
NAME. Miels Seemen	41
NAME: Mick Seaman COMMENT TYPE: E	42 43
CLAUSE: Figure 13-14	43 44
PAGE: 171	44 45
LINE:	43 46
	10

1	COMMENT START:
2	Somehow a dash or minus sign has appeared before rcvdMsg at the upper left.
3	COMMENT END:
4	SUGGESTED CHANGES START:
5	Remove it.
6	SUGGESTED CHANGES END:
7	
8	Disposition of Comment 27
9	

Accept

10

11 12

13 14

#### Comment 28

15	NAME: Mick Seaman
16	COMMENT TYPE: E
17	CLAUSE: A.5
18	PAGE: 188
19	LINE: 6
20	COMMENT START:
21	The maximum number of MSTIs is 64 not 4.
22	COMMENT END:
23	SUGGESTED CHANGES START:
24	Insert the missing '6'.
25	SUGGESTED CHANGES END:
25 26	SUGGESTED CHANGES END:

### **Disposition of Comment 28**

- Accept
- 30 31

27

28 29

#### $\sim$ 4 20

32	Comment 29
33	
34 35 36 37	NAME: Mick Seaman COMMENT TYPE: E CLAUSE: A.6 PAGE: 191
38 39 40 41 42 43 44 45 46	LINE: 7 COMMENT START: "frames" not "rames". COMMENT END: SUGGESTED CHANGES START: Insert the missing 'f. SUGGESTED CHANGES END:

Disposition of Comment 29	1 2
Accept	3 4
Comment 30	5 6 7
NAME: Les Bell COMMENT TYPE: E	8 9
CLAUSE: 12.8.1.1.3 PAGE: 95	10 11
LINE: 44 COMMENT START: This has the state of the table of table o	12 13
This should specify which instances of the tcWhile timer apply. COMMENT END: SUGGESTED CHANGES START:	14 15 16
Qualify tcWhile timer with "for any port for the CIST". SUGGESTED CHANGES END:	17 18
Disposition of Comment 30	19 20 21
Accept	22 23 24
Comment 31	24 25 26
NAME: Les Bell COMMENT TYPE: T	27 28 20
CLAUSE: 12.8.1.3.3 PAGE: 97 LINE: 24	29 30 31
LINE: 24 COMMENT START: The Set operation may be rejected if the MaxAge, HelloTime and ForwardDelay do not	32 33
comply with the enforced relationships defined in 802.1w 17.28.2 and 802.1D 8.10.2, or if they are outside their permitted ranges. 12.8.1.3.4 lists the checks performed on these val-	34 35 36
ues. COMMENT END: SUGGESTED CHANGES START:	37 38
Add suitable rejection reasons to the list of outputs. SUGGESTED CHANGES END:	39 40 41
Disposition of Comment 31	42 43
Accept.	44 45 46

#### Comment 32

2	
3	NAME: Les Bell
4	COMMENT TYPE: ER
5	CLAUSE: 13.11
6	PAGE: 136
7	LINE: 44
8	COMMENT START:
9	Mis-matched brackets in expression.
10	COMMENT END:
11	SUGGESTED CHANGES START:
12	Replace expression with
13	" $((RR D == RRootID) \&\& (IRC D == IntRootPathCost) \&\&$
14	(D == DesignatedBridgeID) && (P D == DesignatedPortID))"
15	SUGGESTED CHANGES END:
16	

#### Disposition of Comment 32

Accept

#### Comment 33

23 24

21 22

17

18 19 20

1

- NAME: Les Bell
- 26 COMMENT TYPE: ER
- 27 CLAUSE: 13.24
- 28 PAGE: 154 29 LINE: 25,41
- 29 LINE: 25, 41 30 COMMENT START:
- 30 COMMENT START: 31 'rcvdBpdu' is a per-Port variable, and should be moved from the per-Port-per-Xst list to
- 31 'rcvdBpdu' is a per 32 the per-Port list.
- 32 COMMENT END:
- 34 SUGGESTED CHANGES START:
- Remove 'rcvdBpdu' from the per-Port-per-Xst list and add it to the per-Port list, after bullet item i). Re-number other bullet items as appropriate.
- 36 let item i). Re-number other bullet 37 SUGGESTED CHANGES END:
- 38 39

40 41

42 43

44 45

### Disposition of Comment 33

Accept

### Comment 34

46 NAME: Les Bell

COMMENT TYPE: TR CLAUSE: 13.26.8 PAGE: 162 LINE: 28 COMMENT START: This procedure does not recognise the RootInfo case for the MSTI. This prevents the PIM:ROOT state from being invoked, and the 'agreed' flag is never set for the Designated Port. COMMENT END: SUGGESTED CHANGES START: Add recognition of the RootInfo case, as per 13.26.7. SUGGESTED CHANGES END: <b>Disposition of Comment 34</b>	1 2 3 4 5 6 7 8 9 10 11 12 13 14
•	15
Accept	16 17
	18
Comment 35	19
	20
NAME: Les Bell	21
COMMENT TYPE: T	22
CLAUSE: 13.35	23
PAGE: 176	24
LINE: 24	25
COMMENT START:	26
The event 'operEdge' on the transition from the TCM:ACTIVE state to the TCM:INAC-	27
TIVE state is not required. The transition from TCM:INACTIVE to TCM:DETECTED	28 29
prevents an operEdge port from becoming TCM:ACTIVE and there is no means for a port	29 30
to set operEdge to TRUE once it has become FALSE, other than to reset the port which	31
should take it through the TCM:INIT state.	32
COMMENT END: SUGGESTED CHANGES START:	33
Remove the transition from the TCM:ACTIVE state to the	34
TCM:INACTIVE state.	35
SUGGESTED CHANGES END:	36
	37
Disposition of Comment 35	38
	39
	40
Accept. Remove this; also remove from Figure G-10.	41
	42
Comment 36	43 44
	44 45
NAME: Les Bell	43 46
	.0

- 1 COMMENT TYPE: TR
- 2 CLAUSE: 13.22
- 3 PAGE: 151
- 4 LINE: 1-4
- 5 COMMENT START:

This clause defines Hello Time to be managed separately for each Port. However, most references to Hello Time throughout this document still refer to Hello Time as a per-Bridge parameter. This comment, and all of the subsequent comments, identify the changes required to define use of a per-port Hello Time value, assuming that is what is required. Clarify if the per-Port Hello Time applies only to MSTP, and it does not apply

- 11 to STP or RSTP.
- 12 COMMENT END:
- 13 SUGGESTED CHANGES START:

Discuss whether there is really a need to change Hello Time to be configured per port. If so, then the following comments must be resolved. If not, the following comments do not apply and the few clauses of the document that have been updated to account for a per-Port Hello Time must be reviewed to ensure the changes still apply.

See subsequent comments on "Hello Time" related issues. These assume the per-PortHello Time applies only to MSTP.

20 SUGGESTED CHANGES END:

#### 21 22

23 24

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26 27

28 29

#### **Disposition of Comment 36**

Accept. Keep the per-Port configuration, and make the consequent changes detailed below.

#### Comment 37

- 30 NAME: Les Bell
- 31 COMMENT TYPE: TR
- 32 CLAUSE: 12.8.1.1.3
- 33 PAGE: 96
- <sup>34</sup> LINE: 6
- 35 COMMENT START:
- Clause 13.22 defines Hello Time to be a per-Port parameter, so Bridge Hello Time does not apply to MSTP
- not apply to MSTP.
- COMMENT END:
- <sup>39</sup> SUGGESTED CHANGES START:
- 40 Remove bullet item 1), Bridge Hello Time, move it to a new list of parameters that are only
- 41 supported by STP and RSTP. Re-number other bullet items accordingly.
- <sup>42</sup> SUGGESTED CHANGES END:
- 43
- 44 45
- 45 46

Disposition of Comment 37	1 2
Accept. See Disposition of Comment 36 on page 22	3 4
Comment 38	5 6 7
NAME: Les Bell	8
COMMENT TYPE: TR CLAUSE: 12.8.1.3.2/4	9 10
PAGE: 97	11
LINE: 11/32/40	12
COMMENT START:	13
Clause 13.22 defines Hello Time to be a per-Port parameter, so Bridge Hello Time does not apply to MSTP.	14 15
COMMENT END:	16
SUGGESTED CHANGES START:	17
Remove bullet item b), Bridge Hello Time, move it to a new list of parameters that are	18 19
only supported by STP and RSTP. Re-number other bullet items accordingly. Clarify Bridge Hello Time only applies to STP and RSTP in the Procedure, in 12.8.1.3.4.	20
SUGGESTED CHANGES END:	21
	22
Disposition of Comment 38	23
	24
Accept. See Disposition of Comment 36 on page 22	25 26
Comment 39	27 28
	29 30
NAME: Les Bell	31
COMMENT TYPE: TR	32
CLAUSE: 12.8.2.1.3 PAGE: 99	33
LINE: 17	34
COMMENT START:	35
The Hello Time should refer to 13.24.9, cistPortTimes, instead of 13.23.7, cistRootTimes.	36
Also, if 13.24.7, cistMsgTimes, allows the received Hello Time to be adopted for a non-	37
Designated Port, then we should also include the administered value of Port Hello Time in	38
this list.	39 40
COMMENT END:	40
SUGGESTED CHANGES START:	42
Dispersition of Opport 20	43
Disposition of Comment 39	44
	45
Accept. See Disposition of Comment 36 on page 22	46

#### Comment 40

2	
3	SUGGESTED CHANGES END:
4	NAME: Les Bell
5	COMMENT TYPE: TR
6	CLAUSE: 13.23.4
7	PAGE: 152
8	LINE: 38
9	COMMENT START:
10	Clause 13.22 defines Hello Time to be a per-Port parameter, so it should be removed from
11	CistBridgeTimes.
12	COMMENT END:
13	SUGGESTED CHANGES START:
14	Remove Bridge Hello Time from bullet a).
15	SUGGESTED CHANGES END:
16	
17	

### Disposition of Comment 40

Accept. See Disposition of Comment 36 on page 22

#### Comment 41

23 24

21 22

18 19 20

1

2

NAME: Les Bell 25 COMMENT TYPE: TR 26 CLAUSE: 13.23.7 27 153 PAGE: 28 8 LINE: 29 COMMENT START: 30 Clause 13.22 defines Hello Time to be a per-Port parameter, so it should be removed from 31 cistRootTimes. 32 COMMENT END: 33 SUGGESTED CHANGES START: 34 Delete all occurences of "Hello Time" from this clause. 35 SUGGESTED CHANGES END: 36 37 38 **Disposition of Comment 41** 39 40 Accept. See Disposition of Comment 36 on page 22 41 42 Comment 42 43

4445 NAME: Les Bell46 COMMENT TYPE: TR

CLAUSE: 13.24.5	1
PAGE: 156	2
LINE: 24	3
COMMENT START:	4
Clause 13.22 defines Hello Time to be a per-Port parameter, so it should be removed from	5
cistDesignatedTimes.	6
COMMENT END: SUGGESTED CHANGES START:	7
Delete "Hello Time" from this clause.	8 9
SUGGESTED CHANGES END:	9 10
SUGGESTED CHANGES END.	10
	11
Disposition of Comment 42	12
	14
Accept. See Disposition of Comment 36 on page 22	15
	16
Comment 43	17
	18
NAME: Les Bell	19
COMMENT TYPE: TR	20
CLAUSE: 13.24.7/9	21
PAGE: 156	22
LINE: 35/46	23
COMMENT START:	24
Clause 13.22 defines Hello Time to be a per-Port parameter.	25
COMMENT END:	26
SUGGESTED CHANGES START:	27
Discuss. This use of Hello Time is not so clear.	28
I think a Port should use the received value of Hello Time if it is not the Designated Port	29
for the LAN to which it is connected, so the cistMsgTimes should include the Hello Time,	30
and this clause is, in fact, correct.	31
If a port is intended to use the configured Port Hello Time at all times, then Hello Time	32
should be removed from cistMsgTimes and from cistPortTimes in 13.24.9. The state	33
machines may also need to be updated to set the value of Hello Time used by the Port sep-	34
arately, whenever cistPortTimes is set. Other comments, that add clarifications that Hello	35
Time is taken from the value in cistPortTimes, would also need to be updated.	36
SUGGESTED CHANGES END:	37
	38
Disposition of Comment 43	39
-F	40
No change needed to the text; the intent is to use the received value.	41
	42
	43 44
	44 45
	43 46
	40

#### Comment 44

—	
3	NAME: Les Bell
4	COMMENT TYPE: TR
5	CLAUSE: 13.26.6
6 7	PAGE: 162
8	LINE: 3
8 9	COMMENT START:
9 10	The value of Hello Time should be clarified.
-	COMMENT END:
11	SUGGESTED CHANGES START:
12	Note that Hello Time is taken from cistPortTimes for this port.
13	SUGGESTED CHANGES END:
14	

### **Disposition of Comment 44**

Accept. See also Disposition of Comment 36 on page 22

#### Comment 45

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23 NAME: Les Bell

24 COMMENT TYPE: TR 25 CLAUSE: 13.36

- 25 CLAUSE: 13. 26 PAGE: 177
- 26 PAGE: 1 27 LINE: 3
- 27 LINE: 3 28 COMMENT START:
- Clause 13.22 defines Hello Time to be a per-Port parameter, so it should be removed from this list.
- 30 COMMENT END:
- 32 SUGGESTED CHANGES START:
- Remove bullet item g), Bridge Hello Time. Re-number subsequent bullet items accordingly.
- Identify "Port Hello Time" as a 'new' parameter affecting performance and list the constraints upon it (based on the 'old'
- "Bridge Hello Time" from 802.1D).
- 37 "Bridge Hello Time" from 802.1D 39 SUGGESTED CHANGES END:
- 38 39

40 41 42

### **Disposition of Comment 45**

Accept. See Disposition of Comment 36 on page 22.

Comment 46	1 2
NAME: Les Bell	3
COMMENT TYPE: TR	4
CLAUSE: A.11	5
PAGE: 202	6
LINE: 17	7
COMMENT START:	8 9
All Ports on all Bridges run their own Hello Time interval, so the reference to the Root is	9 10
incorrect.	11
COMMENT END:	12
SUGGESTED CHANGES START:	13
Delete "when acting as the Root".	14
SUGGESTED CHANGES END:	15
	16
Disposition of Comment 46	17
	18
Accept.	19
	20
Comment 47	21
	22
NAME: Les Bell	23
COMMENT TYPE: TR	24
CLAUSE: A.11	25
PAGE: 202	26
LINE: 41	27 28
COMMENT START:	28 29
This should refer to the "Port Hello Time", instead of the "Bridge Hello Time".	30
COMMENT END:	31
SUGGESTED CHANGES START:	32
Change it, and fix the references (to 13.22?)	33
SUGGESTED CHANGES END:	34
	35
Disposition of Comment 47	36
	37
Accept.	38
1	39
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	42
	43 44
	44 45
	46

#### 4.21 ME Liaison letter to ITU-T SG 15, 17 - Takefman 5 03:11 PM

Moved: to approve the transmission of the liaison letter and attachments (ITU-T-SG17-reply.pdf, P802.17/D0.3 to ITU-T StudyGroups 15 and 17.

Moved: Takefman/Grow

Passes: 10/0/0

10

5

To: Mr. Herbert Bertine ITU-T SG 17

To: Mr. Shaohua Yu ITU-T SG 17 Q7

Cc: Mr. Peter Wery ITU-T SG 15

Cc: Mr. Ghani Abbas ITU-T SG 15 Q9

Cc: Mr. Gilles Joncour ITU-T SG 15 Q11

Subject: Comments on ITU-T SG17 TD2053,

Dear Mr. Bertine, Mr. Yu,

Thank you for inviting IEEE 802 and IEEE 802.17 to submit comments on your draft document, ITU-T SG17 TD2053, Draft New Recommendation X.msr: "Multiple Services Ring (MSR)". We have general comments on the relationship between the work going on in ITU-T SG 17 and IEEE 802.17, as well as specific technical comments on the referenced draft (detailed in the Annexes). Because of the similarities between the work of ITU-T SG 17 as reflected in TD2053, and the charter of IEEE 802.17, we believe that a close coordination of our work efforts is most critical, and will therefore address that area first.

The IEEE 802.17 Resilient Packet Ring (RPR) Working Group was formed with a charter to develop an RPR standard in December 2000. We meet every two months and have on the order of 100 participants at each meeting. The IEEE 802.17 RPR standard development efforts have benefited from the extensive efforts and contributions of over 50 companies including carriers, system vendors, silicon vendors and universities, and from the participation of over 400 individuals, world-wide. Between meetings we develop and review drafts. We just completed the review of our third draft (IEEE P802.17/D0.3) and will be creating Draft 1.0 during the month of August 2002. The drafts are subject to intensive scrutiny, analysis, simulation and hardware modeling. It is our expectation that this effort will result in a standard that fully addresses our projects objectives. In addition, it will be fast-tracked as an international ISO/IEC standard, with world-wide reach. By visiting our web site <a href="http://grouper.ieee.org/groups/802/17/">http://grouper.ieee.org/groups/802/17/</a> you can review the hundreds of detailed contributions, representing thousands of hours of work by carriers, equipment and chip providers, and technical universities from around the world that have formed the basis for our current draft.

The charter of the Working Group is to create an RPR standard that will address transport of multi services that includes data, voice and video. Our technical approach is to use dynamic bandwidth management mechanisms for carrying multi services over RPR with the required bandwidth and delay assurances. In addition, RPR will maximize bandwidth utilization for opportunistic traffic such as Internet traffic.

RPR provides a flexible protection mechanism that supports meeting SLAs for multi services in under 50 ms. The wrap based protection switching mechanism in RPR provides a minimized packet loss for data services whose SLA attributes for network availability are usually a function of packet loss. The steering based protection mechanism provides somewhat simpler hardware. Both mechanisms can provide guarantees of no packet reordering, which is useful for emulating voice and TDM emulated services and is required by some data protocols. These features highlight RPR's commitment to multi services. Furthermore, when deployed as part of a

SONET/SDH ring network, a portion of the ring BW can be provisioned for traditional TDM services, with a portion reserved for RPR services.

An objective for RPR is to provide an out-of-box plug-and-play experience that requires no provisioning or configuration of RPR nodes to attain an operational state of the RPR network. Hence, RPR is targeted for world markets that have access to pool of labor with very minimal qualifications to configure, provision and monitor RPR networks.

RPR is physical layer agnostic enabling it to operate over SONET, SDH, Gigabit Ethernet or 10 Gigabit Ethernet physical layers, as well as other physical layers to be defined. This flexibility will permit the integration of RPR into a variety of existing and newly emerging optical transmission technologies.

As a part of 802 standards, RPR will operate with existing bridging and routing protocols with no changes required to either. This capability will enable seamless integration of several video multicast schemes proposed over IP. Since RPR will support current 802.1D bridging, it can be used to offer Ethernet based layer 2 services with no changes to existing Ethernet equipment.

The proposed RPR standard also includes Layer 2 OAM that enables root cause analysis and fault isolation on optical networks. This feature allows the flexibility for the optical transmission layer to retain its OAM&P scheme while providing a better resolution of failures. It also speeds up fault isolation.

The proposed RPR standard is also specified with flexibility in implementing RPR nodes in terms of buffer capacity required. This flexibility will allow for cost trade-offs in RPR box design based on application requirements.

To summarize, we have provided a brief table of the similarities between Draft X.msr and our Draft P802.17 in Annex 1.

Based on the objectives for RPR and MSR there appears to be significant overlap in the scopes of our projects. In light of this overlap in the scope of RPR and MSR, and the desirability to avoid having competing international standards with the same scope, it would be of benefit for us to coordinate our efforts. In an effort to achieve that coordination, we invite you to participate in the review and commenting of our drafts. Although it was our belief that ITU-T SG 15 was the primary ITU-T study group with interest in our work, we will be happy to benefit from the review and commenting on our drafts by ITU-T SG 17 as well. We have attached Draft 0.3 for informational purposes. We would appreciate your review and comments on Draft 1.0 which will be available by the end of August. Because of the level of technical detail and industry focus and effort on the IEEE 802.17 effort, we strongly recommend that you work with us to help insure that the emerging IEEE 802.17 standard is written in a way to address your requirements.

Thank you.

Sincerely, Paul Nikolich Chair IEEE 802

Michael Takefman Chair IEEE 802.17 Resilient Packet Ring Working Group

Annex 1: Brief Feature comparison

Draft X.msr	Draft P802.17
Dual counter-rotating optical rings, maximum of 32 stations	N x dual counter-rotating optical rings, maximum of 127 stations per ring. With support for 255 under consideration.
Local with fixed addresses (4 octets) – but Ethernet or IP addresses may be used instead!?	Global unique MAC addresses (6 octets) – no provisioning
Destination address, header, payload, FCS	RPR header, destination address, source address, HEC, payload, FCS
Unspecified buffer, 8 priorities	Single or dual buffers, 3 priorities
Unspecified allocation by 'scheduler' function, lossy	Specified fairness algorithm, loss-less
SONET/SDH, GE, 10GE LAN/WAN	Agnostic – includes SONET/SDH, GE, 10GE LAN/WAN
X.86 reconciliation/adaption with SONET/SDH, GMII for GE	GFP or Byte Synchronous HDLC reconciliation / adaption with SONET, GMII for GE, XGMII for 10GE
Discovery frame sent with TTL, responses add node address	Discovery frame sent with TTL, responses add node address
Wrapping	Wrapping or steering
Not specified	Destination stripping of unicast traffic
Frame based fault & performance management	Frame based fault & performance management with defined MIB
Destination address, header, source address, parameters, FCS – fixed at 20 octets	RPR header, destination address, source address, HEC, parameters, FCS – fixed at 42 octets
Not specified	Conformant to transparent and VLAN bridging (802.1D & 802.1Q)
50 page draft based on 1 contribution in Feb 2002	354 page draft issued in June 2002 based on 2 years of work to combine 200+ contributions
	Dual counter-rotating optical rings, maximum of 32 stationsLocal with fixed addresses (4 octets) – but Ethernet or IP addresses may be used instead!?Destination address, header, payload, FCSUnspecified buffer, 8 prioritiesUnspecified allocation by 'scheduler' function, lossySONET/SDH, GE, 10GE LAN/WANX.86X.86reconciliation/adaption sONET/SDH, GMII for GEDiscovery WrappingNot specifiedFrame based fault & performance managementDestination address, header, source address, parameters, FCS – fixed at 20 octetsS0 page draft based on 1 contribution

#### Annex 2: Specific technical comments on ITU-T SG17 TD2053

The current version of the MSR draft appears to be in an early stage of development. We seek further clarifications on how the following features are achieved

1. Spatial Reuse: How is spatial reuse achieved for bridging 802 based networks? How will you achieve compliance with 802.1D/Q at the same time?

- 2. Multicast: The procedure for broadcast and multicast is hard to understand and missing details, especially regarding the packet mis-ordering, packet duplication, and packet loss under various conditions. Please elaborate.
- 3. TSN: It is unclear how you use TSN for point to multipoint connectivity. TSN seems to be defined for point-to-point connectivity only. If that is the case, it is hard to use the TSN/TT combination to address the point to multipoint connectivity.
- 4. Fairness: If the probability that a packet will go through a node is x, then the probability that a packet will go through N stations will be x<sup>N</sup>. This is not the case for the current network the MSR is to replace, and not the case for the 802.17 based networks. It is not clear how the scheduler function would accomplish this.

Moved: to empower Michael Takefman to be the representive of IEEE 802 at the Oslo ITU-T SG 15/17 meeting, with the understanding that Mr. Takefman will clearly and accurately represent only approved positions.

5 Moved: Takefman/Grow

 Passes: 10/0/0
 - Kerry
 10
 03:23

 4.22
 ME
 802.11F to sponsor ballot
 - Kerry
 10
 03:23

 PM

10 Moved: to conditionally approve forwarding 802.11F Recommended Practice Draft 4.0 to sponsor ballot with the inclusion of the unresolved negative comments in the ballot package per supporting documentation posted to the SEC during the Vancouver meeting.

Moved: Kerry/Heile

15

Passes: 10/0/0

Agenda#: 4.22 Date: 07/12/02 Time: 15:16 Hrs.

# **IEEE 802 LMSC RESOLUTION**

Motion By: KERRY Seconded By: HEILE

Moved: To initiate a Sponsor ballot for 802.11f Recommended Practice Draft 4.0 per supporting documentation posted to the SEC during the Vancouver meeting. With provision that the unresolved ballots be included in the Sponsor Ballot package.

(note: D4.0 is the approved D3.1 with revision marks accepted)

Approve: 10 Do Not Approve: 0 Abstain: 0

4.23	ME	PAR for Coexistence TAG	-	Lansford	15	02:28
						PM

Moved: to create a Coexistence Technical Advisory Group (TAG) within IEEE 802. The TAG shall submit its operating rules to the SEC for affirmation.

Moved: O'Hara/Heile

5

Passes: 11/0/0

Moved: to affirm Jim Lansford as the interim chair of 802.19 Coexistence TAG with election of the chair to take place at the next meeting.

10

Moved: Quackenbush/Rigsbee

Passes: 11/0/0

4.24 ME	802.15.4 conditional approval to sponsor ballot	-	Heile	5	5	03:29
						PM

15

Moved: to conditionally approve forwarding IEEE P802.15.4 Draft D16 to Sponsor Ballot per Procedure 10 of the LMSC rules dated November 2001

Moved: Heile/Kerry

20

Passes: 10/0/0

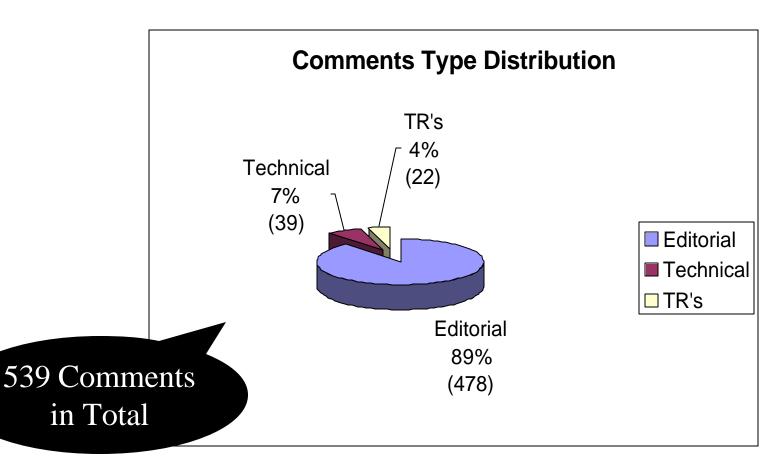
### 802.15 Task Group 4 Low Rate WPANS

# **Results after LB 18 on** IEEE P802.15.4 Draft D15 **:** Ballot Completed July 9, 2002

- 77 out of 89 voters have participated
- 66 Yes (80.0%)
- 4 No (5.3%)
- 5 Abstained (6.7% of total votes)

## Approval: 94.3% Participation: 84.3%

### **TG4 Team LB18's Comment Classification**



### Who made these comments?

LB18	Е	Т	TR
Bourgeois, Monique	112	4	
Cypher, David	21	2	20
Gifford, lan	14	1	
Gorday, Paul	9		
Gutierrez, Jose	15		
Jamieson, Phil	285	24	
Liang, Li	4		
Rasor, Gregg			1
Shellhammer, Steve			1
Hans van Leeuwen	18	8	
	478	39	22
LB15		<b>—</b>	
Dydyk, Michael			1
LB13			
Rajugopal, Gubbi			69

### **T/TR Comments Resolution**

LB18	T TR
Bourgeois, Monique	4 => 0
Cypher, David	2 => 0 20 => 0
Gifford, lan	1 => 0
Gorday, Paul	
Gutierrez, Jose	
Jamieson, Phil	24 => 0
Liang, Li	
Rasor, Gregg	1=> 0
Shellhammer, Steve	1=> 0
Hans van Leeuwen	8 => 0



LB15 Dydyk, Michael

1 => 0





Submission



- In LB 13 submitted 69 TR's
  - 58 Accepted / 18 Rejected
- Since January 15th, several attempts to contact him have been made, seeking feedback from comment resolution.
  - 14 e-mails requesting his feedback
  - One voice mail per week from Jan-15 to Apr-1 (11 weeks)

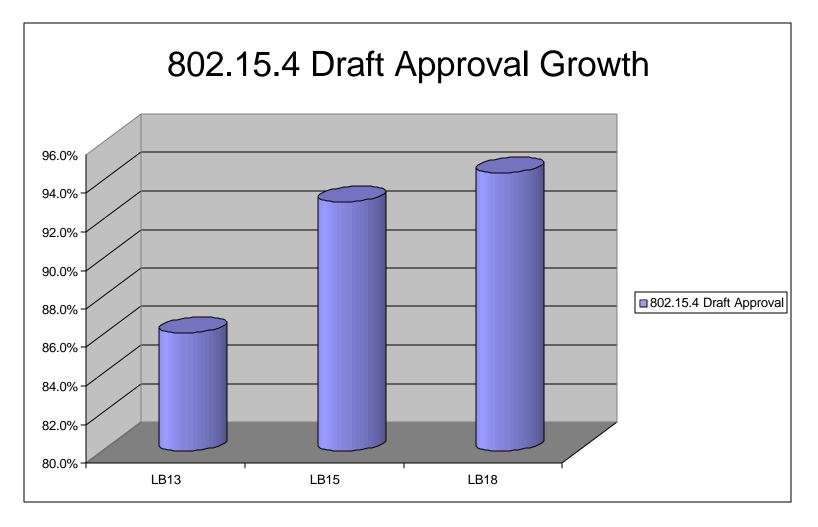
On April 1st, TG4 decided to send an e-mail informing him that our group can not continue "hunting" him.

TG4 invited him to participate in LB15 (Apr-17) to review the latest draft.

Heard from him this week commenting on the sponsor ballot group...



### **TG4 Performance**



### How we addressed coexistence?

- Clear Channel Assessment
  - Listen before talk
- Dynamic Channel Selection

- Devices are Frequency Agile

• Spread Spectrum Modulation

- RF Energy is spread

• Link Quality Assessment

- Selection of appropriate channel for network operation

• Narrowband channel usage

- 802.15.4 looks as a NB interference for 802.11b

### How we addressed coexistence?

- Limited Duty Cycle
  - Devices expected to run with a 1% duty cycle
- Reduced Transmit Power
  - Nominal output power of 0 dBm
- Neighbor network capability/ air time share

- Guaranteed Time slots can be coordinated to allow other neighboring networks to operate

### In addition we have--

- Partnered with 802.15.2 and 802.15.3 task group members
- "Straw man" proposal for quantification of coexistence St. Louis (May 2002)
- TG3 and TG4 editors cooperated to create and refine Coexistence Annexes in respective drafts.
- Ongoing cooperation with Coexistence SG

# Schedule for confirmation ballot and resolution meeting

- Confirmation Ballot to start on August 19th and conclude on August 30.
- Final resolution meeting scheduled for the 802.11-15-18 Interim in Monterey, CA, September 9-13, 2002.

### Task Group 4 Low Rate WPANS

### **Project Timeline**

	2000			2001						2002									2003									
	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
Press Release	Х																											
Call for application created by 11/09/00	х																											
Call for intent for proposal created by 12/1/00		х																										
Call for proposal by 01/17/00			х																									
Selection criteria doc created by 01/01			х																									
Start decision process by 03/01.					х																							
Present proposals 03/01					х		х		х																			
Working proposal selected by the 07/01									х																			
Low rate pocket guide (book).																	х	х	х	х	=>							
Proposal draft completed by 12/01.									х	х	х	х	х	х														
1st letter ballot completed by 01/02.													х	х	х													
Resolution of comments completed by 03/02	2.														х	х	х											
Re-circulation completed by 04/02.																		х										
Resolve re-circulation comments																			х									
2nd re-circulation																				х								
Resolve 2nd re-circulation comments.																					х							
3rd re-circulation																						х						
Resolve 3rd re-circulation comments.																							х					
Sponsor ballot completed by 11/02.																							х	х				
Sponsor ballot comment resolution.																									х			
Re-circulation completed by 1/03.																										х	х	
RevCom Approval																											х	

### Motion to the Working Group

### Move to seek conditional approval from the SEC to forward IEEE P802.15.4 Draft D16 to Sponsor Ballot per Procedure 10 of the LMSC rules dated November 2001

Mover: Jose Gutierrez Second: Jim Allen 29-0-4

### Motion to the SEC

Move to seek conditional approval to forward IEEE P802.15.4 Draft D16 to Sponsor Ballot per Procedure 10 of the LMSC rules dated November 2001

Mover: Bob Heile Second: Stuart Kerry

4.25

	4.26 MI SEC meeting time rules change	- Nikolich	10	01:58 PM						
5	The original rules change ballot passed with $10/2/0$ (from Paul's recollection).									
	Moved: to adopt the rules change text resulting from the comment resolution	(2/3 super majority	required f	for passage)						
10	Moved: Stevenson/Kerry									
10	Moved: to amend the text to reflect a 9am start and 1pm finish. Moved: Thompson/Marks									
15	802.16 unanimously opposed the rules change at their last interim meeting. 802.3 distance to the closing SEC plenary from their own closing plenary on Thursday e		enfranchise	d by the						
	Amendment Fails: 4/6/0									
	Motion Passes: 8/4/0 (The chair cast the deciding vote)									

20

4.27 MI	2nd Vice Chair rules change	-	Thompson	10	02:11
	-		-		PM

IEEE 802 LMSC Rules Revision Letter Ballot,	Pass #4
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From:	Geoff Thompson, 1 <sup>st</sup> Vice-Ch	nair IEEE 802
To:	Sponsor Executive Committe	e
Date:	Friday, July 12, 2002	11:30 AM
Subject:	Revised Rules Change to add	a second SEC vice chair.

Please find below my revised changes to the LMSC Operating Rules that, I believe, will address all of the concerns expressed during balloting and the comment resolution meeting on Sunday evening (July 7).

Change marks are against the existing rules and are shown in underscore and strikeout (and red in the screen version).

These changes were reviewed during a Rules Meeting held on Tuesday at 2:00 PM.

The meeting was attended by Geoff Thompson, Paul Nikolich, Bob Heile and Bill Quackenbush.

All proposed text was agreed to by all except the text in 3.4.2 and 3.4.2.1. Bob Heile wanted that text to be "1<sup>st</sup> Vice Chair" instead of "acting Chair" as agreed to in the Sunday evening Bob's change supported by Paul is now in the text.

It is my intention to move this text forward at the closing Exec.

Geoff

\_\_\_\_\_

•

#### **802 SEC MOTION:**

Approve the following change to the 802 Operating Rules for									
IMMEDIATE APP	PROVAL per LMSC I	Rules 3.6.5							
Move: Thompson									
2 <sup>nd</sup> : Grow									
YES: NO:	Abstain	PASS/FAIL							

#### From 3.2

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 and ex officio members of the LMSC Executive Committee.
   These positions are appointed by the LMSC Chair and confirmed by the Executive Committee.
- c) <u>The LMSC Chair may appoint a 2<sup>nd</sup> Vice Chair. A Vice Chair will be responsible for</u> <u>such duties as may be assigned by the LMSC Chair. In the case of unavailability or</u> <u>incapacity of the Chair, the 1<sup>st</sup> Vice Chair shall act in the capacity of the Chair.</u>
- <u>de</u>) Chairs of the Working Groups.
- <u>ed</u>) Chairs of the Technical Advisory Groups (TAG).

#### 3.4.2 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. The SEC electronic balloting mechanism may be used at the discretion of the Chair or the  $1^{\text{st}}$  Vice Chair. The electronic balloting mechanism shall include a means by which non SEC members can observe and comment on the discussion.

#### 3.4.2.1 Electronic Balloting

The Chair or the <u>1st</u> Vice Chair shall issue, tally the results of the ballot and determine the minimum duration of the ballot. A majority of eligible voting SEC members must vote approve in order for the ballot to pass.

#### **3.6.1** Initiation of Proposed Rules 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 rule change and the rationale for the chosen text.
- 2. Proposed changes my 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 "Voting at a Meeting" in the section, "LMSC Standards Development Groups."

b) Any Executive Committee Member

Writers of proposed rule changes are encouraged to seek the advice of the LMSC Vice Chair or other experienced members of the SEC to help form the wording in a manner appropriate for and consistent with the LMSC Operating Rules.

#### 3.6.3 Distribution and Executive Committee Ballot

The Executive Committee Vice Chair, (or other Executive Committee member) designated by the LMSC Chair), shall distribute the proposed change to all persons who have attended the current Plenary Session or one of the preceding two Plenary Sessions at least sixty (60) days prior to the next Plenary Session and further; invite and collect comments for presentation to the Executive Committee.

Concurrent with distribution to the LMSC members, an Executive Committee letter ballot shall be conducted, to close thirty (30) days prior to the next Plenary Session.

#### **3.6.4** 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 expediently for its reconsideration for Distribution and Executive Committee Ballot.

#### 5.1.4.5 Removal of Working Group Chairs or Vice Chairs.

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

Moved: To approve the text of the rules change (presented above) resulting from the comment resolution.

Moved: Thompson/Grow

5 Passes: 8/0/3

Moved: To affirm Geoff Thompson as 1<sup>st</sup> Vice Chair and to affirm the appointment of Mat Sherman as the 2<sup>nd</sup> Vice Chair

Moved: Grow/Rigsbee

10 Passes: 9/0/1

4.28 MI	Email Balloting rules change	- Sherman	10	02:25
				PM

From: Matthew Sherman To: Sponsor Executive Committee

Date: July 7th, 2002

Scope: To permit voting by electronic means at the working group level.

Purpose: To facilitate the WG consensus process.

Duration: Resolution on this ballot is scheduled for the LMSC meeting of Friday July 12<sup>th</sup>, 2002. If you have any comments or issues prior to that time, please contact Matthew Sherman (mjsherman@att.com).

Proposed Text<sup>1,2</sup>:

#### 5.1.3.4 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.
- d) To vote by mail on drafts to be submitted to the Sponsor Ballot Group.
- 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.)

5.1.4.2.2 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 letter ballot response time must be at least forty days from the time of "sending" postmark to the postmark of the returned ballot.

The ballot shall contains 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.)

<sup>&</sup>lt;sup>1</sup> taken verbatim from the text that was one vote away (thank you Bill Lidinsky...) from approval on the evening of Thursday March 11, 1999—THREE YEARS AGO!!!

<sup>&</sup>lt;sup>2</sup> The SEC members at that time were Jim Carlo, Paul Nikolich, Buzz Rigsbee, Howard Frazier, Bob Grow, Bill Lidinsky, Dave Carlson, Geoff Thompson, Bob Love, Jim Mollenaur, Chip Benson, D. Vaman, Ken Alonge, Vic Hayes, Pat Thaler and Robert Russell—a total of 16 individuals, of which 4 remain (highlighted).

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 Section 5.4.3.2 Resolution of comments, objections, and negative votes in the IEEE<u>-SA</u> Standards <u>Board</u> 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.

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.

To approve the text of the rules change (presented above) resulting from the comment resolution.

Moved: Kerry/Rigsbee

5 **Passes: 10/1/0** 

4.29 MI	Chair's guideline for OID arcs	- Jeffree	5	03:09 PM
Moved: to app	rove the Chair's Guideline on OIDs as circulated	via email to the SEC this week.		

10

Moved: Jeffree/Thompson

Passes: 9/0/1

#### 802 Chair's Guideline

### Procedure for registration of Object Identifier arcs for use in IEEE 802 standards

#### Background

From time to time, various 802 standards have a requirement to allocate Object Identifier values – the most common example being for the purpose of defining SNMP MIBs, but other examples exist. This procedure defines a simple and consistent scheme that can be used by all current and future 802 working groups, and that can be used flexibly to meet the needs of those working groups.

#### **Procedure for OID allocations**

There is an existing registration arc that is associated with the ISO/IEC 8802 series of standards (i.e., the ISO/IEC versions of the 802 LAN MAC standards). This arc exists as a consequence of the fact that the act of publishing an ISO standard also has the effect of automatically assigning an OID arc that is "owned" by that standard, and therefore no further administrative effort is needed before that standard can allocate OID values. The root arc assigned to the 8802 series of standards is:

iso(1) std(0) iso8802(8802)

Two of the 802 working groups already make use of this arc, by adding a fourth arc to distinguish between working groups (i.e., to distinguish 8802-X from 8802-Y), as follows:

• 802.3 makes use of this arc:

iso(1) std(0) iso8802(8802) csma(3)

• 802.1 makes use of this arc:

iso(1) std(0) iso8802(8802) ieee802dot1(1)

It is clear from the above that this scheme can be extended for use by any 802 working group, simply by replacing the fourth arc with "ieee802dot??(??)", where ?? is the dot number concerned, so for 802.15, for example, the root arc would be:

iso(1) std(0) iso8802(8802) ieee802dot15(15)

Under this scheme, the Working Group concerned is free to decide how sub-arcs will be allocated, in a manner that makes sense for their particular needs. For example, in 802.1, the fifth arc is used to define the type of allocations that are being made. The only type defined so far is for MIBs, but others ccan be added in the future:

iso(1) std(0) iso8802(8802) ieee802dot1(1) ieee802dot1mibs(1)

Below this arc, each individual 802.1 MIB can gets its own identifier. Again, only 802.1X's mib (ieee8021paeMIB) appears in this scheme so far, but clearly others can easily be added:

iso(1) std(0) iso8802(8802) ieee802dot1(1) ieee802dot1mibs(1) ieee8021paeMIB(1)

And so on.

None of the above needs to have any effect upon existing standards that have already solved this problem by using a specific allocation obtained from ANSI; the primary aim of documenting this procedure is to avoid the need to go to ANSI for any more root OIDs for any future OID uses that we may have in 802 standards. Clearly, with this scheme, as new dot groups are created, their root OID arc is also created automatically, so the administrative effort required is zero, other than for the dot group concerned to determine how the fifth and subsequent arcs will be used in their standards.

It is the responsibility of the owner of a particular arc (i.e., the Chair of a dot group) to ensure that any values that are allocated under that arc are documented, in a manner that ensures that the same OID value cannot be assigned to two different objects. In 802.1, this has been achieved in the past for the ANSI allocations by placing tables of OID allocations in Annexes within the standard concerned; in 802.3, a master spreadsheet of allocated OID values is maintained by the Chair and posted on their website. For future allocations, adopting a similar approach to 802.3 seems appropriate.

It is clearly important to construct the allocation scheme below a dot group's root OID in a manner that leaves appropriate "escapes" for uses that cannot be foreseen. The simple expedient of allocating a "type of allocation" arc immediately below the root (as described above) is sufficient to ensure that such an escape is always available.

The intent is that this procedure will be documented in due course as a new chapter of IEEE Std 802; therefore, it is considered to be covered by the 5 criteria requirement of compatibility with the 802 architecture. Therefore, once the amendment to Std 802 has been approved, this Chair's Guideline will no longer be required.

#### Migration

For those working groups that have already made use of other allocation schemes (802.3 and 802.1 are both examples), it may be considered appropriate to migrate existing allocations to the new scheme. In considering this, the following should be borne in mind:

- While it might be "tidy" to have all 802 OIDs allocated under a single root, this is by no means essential for any other reason; one OID arc is no better or no worse than any other from a technical point of view.
- If migration is felt desirable, there is no requirement to remove uses of the old arc; it is possible to add a second OID value to identify a single object. An analogy here is UK postal addresses; house number, road name, town and county is sufficient to identify a particular house, but substituting house number and Zip code identifies the house equally well. From the point of view of stability, double naming rather than delete old and insert new is probably a preferable route.

4.30	Break		10	03:36 PM
4.31				
4.32 MI	Meeting organizer contract approval	- Quackenbus h	5	03:46 PM

Moved: That the contract with Face-to-Face Events for meeting management be extended under the same terms and conditions, through November, 2002.

Moved: Quackenbush/Thompson

10

5

Passes: 6/0/0

4.33 MI	Motion support motion	- Quackenbus	2	03:54
		h		PM

15

25

30

Moved: That a motion requesting the SEC to take an action or actions at the request of a WG or TAG be supported with both the vote in the WG/TAG on the motion requesting SEC action and the number persons on the WG/TAG list of voting members at the time of the vote.

#### 20 Moved: Quackenbush/Thompson

Paul recommends that this be done as a Chair's Guideline and will require a good deal of work to get a well though out guideline.

The motion was withdrawn.

4.34 M	I	Authorization to disperse funds for 802.3ah mtg	-	Quackenbus	10	04:01
				h		PM

Moved: That the 802 SEC may enter into contracts for accommodations and services and may collect and disperse funds for an 802.3ah interim meeting at the Fairmont Hotel Vancouver, Vancouver, BC in January, 2003 subject to the unanimous agreement by the SEC Chair, Executive Secretary and Treasurer that such contracts do not expose 802 to unreasonable or unnecessary liability and that the budget for the meeting is net income positive.

#### Moved: Quackenbush/Thompson

Basically, this makes 802 the meeting host for this interim meeting. This is identical to what was done for the 802-hosted interim for 802.11 and 802.15.

Passes: 10/0/0

4.35	MI	Membership/Quorum rules change	-	Thompson	10	04:10
				-		PM

40

Moved: to approve the rules change text shown for distribution and Executive Committee ballot. (Requires 2/3 super majority to pass.)

#### Moved: Thompson/Grow

45

Passes: 8/2/0

Regarding Quorums in working Groups

It was felt that the/a major source of the problem was that it takes too long to get rid of inactive members. The current rule is:

#### 5.1.3.2 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.

I propose to change it to the following

#### 5.1.3.2 Retention

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

#### **802 SEC MOTION:**

Approve the above change to the 802 Operating Rules for

#### **DISTRIBUTION and EXECUTIVE COMMITTEE BALLOT**

Move: Thompson 2<sup>nd</sup>: Grow YES: NO: Abstain PASS/FAIL

#### **3.6.2 Executive Committee Action on Proposed Rules Changes**

The proposed rules 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,
- Assign for Study
- Reject.

#### 4.36 DT Cross-WG access to drafts and reflectors - Jeffree 5 04:20 PM

Tony presented a case for providing access to WG drafts and reflectors by any member of 802. The particular situation he described was the need for 802.1 to have access to drafts of 802.11.

#### Moved: that access to areas of any 802 WG website, and to any 802 WG email exploder, should be granted to any participant in any 802 WG. Implementation guidelines are in the hands of the LMSC Chair.

#### 10 Moved: Jeffree/Kerry

Paul spoke in favor of the motion and asked that a Chair's Guideline be developed, should the motion pass.

There was some discussion of the ambiguity of the word "participant". This matches the wording on the IEEE copyright statement and is to be resolved by IEEE Staff.

Passes: 9/0/0

#### Motion to reconsider: Stevenson/Quackenbush

#### 20 Passes without objection

The motion is amended to include TAGs and SGs. The new text of this motion is: Moved: that access to areas of any 802 WG/TAG/SG website, and to any 802 WG/TAG/SG email exploder, should be granted to any participant in any 802 WG/TAG/SG. Implementations guidelines are in the hands of the LMSC Chair.

#### 25

Passes: 7/0/2

4.37	II	Trademark meeting results	-	Grow	2	04:33
						PM

30 IEEE counsel is now providing counsel that is more in line with what our own corporate counsel have been providing. The current trademark usage page is now gone. The cover page, front matter, and first use will be marked. All other usage will be plain text. Certain other terms will be trademarked and a policy for derivative usage will be determined. The BoG has rescinded the current usage. This puts us back with the policy of 2001.

4.38 II	Future Meetings	-	Rigsbee	5	04:55
	-		-		PM

#### 35

Encourage your members to use the selected hotels, to avoid penalty clauses in our contracts.

4.39 II	Interim meetings	- O'Hara	3	05:00
	_			PM

- 802.1 10/2-4 in New Orleans
- 802.3 Maintenance, 10/1 in New Orleans
  - DTE Power Approx 8/19 in TBD and 10/2-3 in New Orleans
  - EFM 9/30-10/3 in New Orleans
- 802.11 9/10-13 in Monterey
- 802.15 9/10-13 in Monterey
- 802.16 9/23-26 in Cheju Korea
- 802.17 9/30-10/3 in New Orleans
- 802.18 9/10-13 in Monterey
- 802.19 9/10-13 in Monterey

#### SB 9/10-12 in Piscataway

4.40	IEEE Get 802 Program	Walker	04:40
	-		PM

The BoG made some minor editorial changes, setting an ending date of May 14, 2004 and replacing "is" with "are" in one location.

5

#### Moved: to approve the agreement as amended by the BoG.

#### Moved: Thompson/Grow

10 Buzz asked that the clarification of the six month timing that he offered be included in the minutes.

#### Get IEEE 802Ô Program Agreement

The objective of the *Get IEEE 802* <sup>™</sup> program is to achieve maximal, unencumbered availability of all IEEE 802® standards. The terms of the program, as agreed to by the IEEE Standards Association (IEEE-SA) and the IEEE 802 Sponsor Executive Committee (SEC) on behalf of the LANMAN Standards Committees (LMSC), are as follows:

#### **1.** Documents in the Program

All current 802 standards will be available through the program subject to the provisions enumerated below. All documents available in the *Get IEEE 802*<sup>TM</sup> program will remain in the program until they are replaced in the program by a superceding document or are withdrawn. Withdrawn or historical standards and drafts will not be available in the program but will be made available for purchase. In addition, documents subject to the wait period will be listed on the website with a link to a site where the documents may be purchased.

#### 2. PDF only

It is agreed that only Portable Display Format (PDF) document files of IEEE 802<sup>®</sup> standards will be posted to the website for no-cost access after the wait period. Print and PDF documents will be available for purchase during the wait period, and print document sales will continue after the six-month wait period.

#### 3. Six month wait period

The six-month wait period begins on the posting date of the PDF publication and ends six months after that date at which point the PDF is posted to the program website for access. The wait period shall not exceed 194 days.

#### 4. Three year pilot

The program is implemented as a three-year pilot program beginning in May 15 2001 and ending May 14 2004. It is our intent to establish a permanent program. During the pilot period, program terms (e.g., sales/sponsorships, wait period, content, etc.) will be jointly evaluated and refined, as necessary, in a mutual good faith attempt to establish a viable permanent program.

#### 5. Annual review

A budget for the program will be established and agreed to each March for the following calendar year. The program terms will be reviewed jointly by the signatories in March of each year and more frequently if requested. If the actual revenue (print and PDF direct sales, online subscriptions and contributions for 802 standards) deviates from the agreed to program budget by more than +/- 20%, the terms may be adjusted to ensure the continued viability of the program. Any adjustment(s) will be based on the needs of IEEE-SA, LMSC and the marketplace. If mutual agreement cannot be achieved, the pilot program will be terminated.

A formal report on the program status, performance and revenues shall be provided to the SEC at each meeting of same.

#### 6. Sponsorship

a. The LMSC will support the program at the level of \$75 per paid plenary meeting attendee, recognizing the revenue impact of allowing IEEE 802® standards to be made available in PDF format at no charge. The Plenary meeting payment supports the program from the beginning of the "Start" month through the end of the "End" month per the schedule below. The payment for a plenary is due by the corresponding start date.

Plenary	Start	End
July, Nov 2000	Start-up	
	contribution	
March 2001	May 2001	August 2001
July 2001	September 2001	December 2001
November 2001	January 2002	April 2002
March 2002	May 2002	August 2002
July 2002	September 2002	December 2002
November 2002	January 2003	April 2003
March 2003	May 2003	August 2003
July 2003	September 2003	December 2003
November 2003	January 2004	April 2004

#### IEEE 802 Plenary Support Schedule

#### b. Sponsorship schedule

A crucial part of the financial viability of the program is corporate and individual sponsorships. The current sponsorship schedule appears below:

2001	2002	
Initial	Revision	
\$100,000	\$50,000	<b>*INITIATOR SPONSOR</b>
 \$50,000	\$25,000	<b>*INITIATOR SUPPORTER</b>
 \$25,000	\$10,000	<b>**ANNUAL SPONSOR</b>
 \$10,000	\$5,000	<b>**ANNUAL SUPPORTER</b>
 \$1000 to 5000	<\$5,000	<b>**ANNUAL CONTRIBUTOR</b>

\* Sponsors at this level will not be solicited for additional support of the Fund. \*\* Sponsors at this level will be solicited each year for support of the Fund.

Business contributions include one-year online standards subscriptions at various levels. All contributors will be recognized on the program delivery site.

Date	Date								
Judith Gorman	Paul Nikolich								
Managing Director	Chairperson								
IEEE-SA	IEEE 802 SEC								

Get text from Buzz.

# 802 SEC & IEEE-SA BoG Joint meeting

July 12, 2002 5-6pm

# Objective

- Bring the goals and interests of IEEE-SA and LMSC into balance
  - Perceived goal of IEEE-SA
    - Generate revenue based on LMSC standards to cover a large percentage of operational costs
  - Goals of LMSC
    - Rapid, efficient publication of high quality, market relevant Standards
    - Easy access to those Standards by all
  - These goals are somewhat in conflict

# Example

- SA sells drafts to generate revenue
   This results in limited access
- LMSC can develop higher quality standards when drafts are made freely available
  - A wider range of review and comment is enabled if drafts are free and easily accessible
    - Access enabled for: students, professors, users and engineers that are not able to participate in meetings.

# LMSC Value Proposition

- 'in demand' (timely, relevant) industry Intellectual Property
- Intellectual Property Rights
- Popular Standards
- High Quality Standards
- Near-publication quality drafts
- State of the art model processes and tools
- Millions of dollars of industry manpower and resources on a regular and continual basis
- Enhancement of IEEE brand
- Volunteers for IEEE-SA processes and projects (StdsBd and committees)
- Links to international SDOs
- Evangelization of IEEE Branded Standards
- Technical content that becomes the foundation for TAB activities
- A significant revenue source
- IEEE-SA and IEEE members

# **IEEE-SA** value proposition

- IEEE SA 'goodwill'
- Accreditation
- Established infrastructure, policies, procedures
- Editing services
- Balloting services
- PDF and print publishing services
- Marketing of Standards
- Public Relations services
- Stature to negotiate with international SDOs
- Process monitoring
- Indemnification
- IT services

# LMSC/IEEE SA Issues

- Liabilities
  - Availability of standards are limited because of price and difficulties associate with purchasing
  - Encumbrance of Sponsor Ballot and Standards Board approval processes
- SA Services LMSC members do not want
  - Certification/conformance testing
- LMSC/BoG/SA Interaction
  - LMSC should have the opportunity to influence BoG/SA decisions that may significantly affect it

# Possible Solution to discuss

- Modify the IEEE SA funding mechanism to better align the goals of both IEEE-SA and LMSC
  - Current: sales per standard
  - Suggested: fee per service provided

#### Passes: 10/0/0

#### 4.40 Adjourn 04:49 PM

5

Prior to adjourning, Paul presented the slides he would present during the joint meeting with the SA BoG that follows.

#### Motion to adjourn. Moved: Stevenson/Jeffree

10

15

#### Passes: 8/0/1

The LMSC meeting was adjourned at 4:49pm.

Respectfully Submitted, Bob O'Hara

Recording Secretary

#### 8/14/2002 rev07\_02\_802proj.xls Please submit updates to Matthew Sherman by Thursday afternoon of Plenarys

								<b>r</b>				-																-		
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Project	Title	Pg Count	Jan-02	Feb-02	Mar-02	Aav-	, Ļ	-in	-6n√	sep-	Oct-(			Feb-03	lar-	hav.	un-l	Ē	-6nv	Sep-	Oct-(		an-	Feb-04	lar-	Vpr-(	May-04	<u> </u>		Sep-
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C=Charter WG by Exec P=Exec app. of PAR W=App. for WG Ballot S=Exec app. for Sponsor Ballot R=Sponsor Ballot recirc F=Exec fwd to Stds Bd A=Stds Board App. I=Pub. Issued E=PAR Expires (Est.) H=Hibernate X=Withdrawn T=Tutorial sg=Study Group D=Disband