

**IEEE 802.16 TGm Minutes (DRAFT)
Session #55, Macau, PRC**

IEEE 802.16's Task Group m (TGm) held its eighth session during the IEEE 802.16 Session #55 in The Venetian Hotel, Macau, People Republic of China. The session was chaired by Brian Kiernan, with Vice Chair Carl Eklund and Avi Freedman, secretary.

1) Monday, May 12, 2008

The Chair called the meeting to order at 4:10 PM, the officers were introduced together with the editors of the EMD and the SDD, Roshni Srinivasan and Shkumbin Hamiti. The credit attendance procedures were explained

The five slides included within <http://standards.ieee.org/board/pat/pat-slideset.ppt> were shown and the patent policy information was provided to the task group.

The chair provided an opportunity for the participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard;

No responses were recorded to the chair's call.

The chair presented the proposed agenda, and the meeting organization. The DL_Ctrl and DL_PHY groups will have breakout sessions. Discussion followed.

Motion: To approve the agenda as captured in IEEE 802.16m-08/020 with the addition of an evening session on Monday evening if meeting space can be found.

Moved by: Avi Freedman

Second: Ron Murias

The agenda was approved without objection.

The minutes from Session #54, IEEE 802.16m-08/014, were presented. The chair asked for any comments and corrections to the minutes. There were none.

The TGm minutes of Session #53 were approved with no objection

The group commenced with resolution of comments received on the EMD document, IEEE 802.16m-08/004r1.

Resolution of EMD comments are captured in IEEE 802.16-08/019r1. Contribution 323r1¹ was presented. **A new version of the EMD document IEEE 802.16m-08/004r2 will be issued.**

Discussion continued on the SDD, according to the commentary database IEEE 802.16m-08/018r1.

Contributions 276, 277 and 360r1 were presented during the discussion.

Meeting adjourned at 6:05 PM.

2) Tuesday, May, 13 2008

The morning session started at 08:10, as a joint discussion with TGj, discussing the output of the ad-hoc group. Minutes were taken by Peiyong Zhu.

The 16jm ad-hoc chair, Rakesh Taori, presented the .16jm ad-hoc report (contribution 500, updated during the meeting to reflecting the comment, uploaded as 500r1 after the meeting).

There was a question on connection 2 in slide 12 titled "of .16j/16m Relay Connection chart " in contribution 500r1. The connection 2 was agreed in the last meeting. Hongyun Qu from ZTE objected to adopt the proposed SDD text for relay connection chart as shown on slide 12 in contribution 500r1.

Brian decided to treat the ad-hoc recommendation on slide 12 as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was proposed by Brian,

“Adopt the text to SDD as specified on slide 13 and Figure and Table specified on slide 12 in ad-hoc report (IEEE C80216m-08/500r1)”

Passed 64/8.

There were discussions on ad-hoc recommendations on usage models as shown on slide 16 and 17.

The following straw polls were conducted on adopting the following
“16m shall include mechanisms for supporting more than 2-hop relay”

Passed 40/9

“RS-RS communication among RSs on different paths is in scope of 16m relay”

¹ Unless stated otherwise, all the contributions are indicated as by the digits for the contribution numbers in a format NNNrN. The full document number is of the format IEEE C802.16m-08/NNNrN.

Failed 16/67.

“MS-MS direct communication and MS relaying is in scope of 16m relay”,

Failed 29/81.

Brian decided to treat the ad-hoc recommendation on slide 21 as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted by vote

Accepted 53/1

–A 16m BS that supports 16m relay stations shall communicate with the 16m RS in the 16m zone. The 16m BS shall multiplex the legacy zone and the 16m zone using TDM in the DL. In the UL, the 16m BS should support TDM as well as FDM for multiplexing legacy zone and the 16m zone. “

Brian decided to treat the ad-hoc recommendation on slide 23 as the proposed remedy of comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted by vote

“Insert in SDD Section 11.4.5, page 22:

The 16m specification shall not alter the legacy zone operation. The access link and the relay link communications in the legacy zone shall be multiplexed in accordance with the 802.16j specifications.”

Accepted 39/5

Brian decided to treat the first item of ad-hoc recommendation on slide 27 as as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted without objections.

Insert in SDD Section 11.4.5, page 22:

–A 16m RS shall communicate with the 16e MS in the "legacy zone".

Brian decided to treat the second item of ad-hoc recommendation on slide 27 as as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted by vote

Insert in SDD Section 11.4.5, page 22:

– The start of the legacy zone and 16m zone for the 16m entities shall be time aligned.

Accepted 21/8

Brian decided to treat the second item of ad-hoc recommendation on slide 27 as as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted by vote

Insert in SDD Section 11.4.5, page 22:

–The duration of the legacy zone of the BS and the RS may be different.

Accepted 18/11

Brian decided to treat the ad-hoc recommendation on slide 27 as as the proposed remedy of a comment (to be submitted as a later comment by the ad-hoc) for SDD. The following remedy was accepted by vote

Insert in SDD Section 11.4.5, page 22:

–Legacy Zone

- where 16m BS communicates with 16j RS or 16e MS, and where 16m RS communicates with a 16e MS.

–16e Access Zone

- where 16m BS, a 16j RS or a 16m RS communicates with a 16e MS.

–16j Relay Zone

- where 16m BS communicates with a 16j RS.

–16m Zone

- where 16m BS communicates with 16m RS or 16m MS, and where 16m RS communicates with other 16m entities (i.e. 16m BS, 16m RS or 16mMS).

Accepted 40/25

Brian instructed the ad-hoc Chair to submit late comments and proposed remedies for SDD. The decisions made towards those remedies in this joint session shall be captured in commentary database format, which will be incorporated into the SDD call for comment resolution database (IEEE 802.16m-08/018r2).

Session resumed at 10:50 with the SDD comments. A list of editorial comments was presented by the editor, with the intent to be voted on en block later during the meeting. Roll call was called for comment 035 by Carl Eklund. Roll call made according to the member list. The results of the roll call are attached in the appendix.
Adjourn for lunch 1PM, till 2PM.

Meeting resumed at 2PM, continuing with the SDD comments. Break at 3:30 PM and resume at 3:50 PM, still with SDD comments.

During the discussion the following contributions were presented: 276, 277, 278, 291, 341, 360r1, 382r1, 404, 436r3, 453r2

Break for dinner at 6:10PM.

Meeting resumed at 8:05 PM, with DL-MIMO contribution presentations. The chair announced the procedure. The contributions will be organized by the entity with which the contributors are affiliated. The presenting entities will be picked at random. The entities to present will be ETRI, Panasonic, Motorola, NTU/ITRI, Toshiba, Alcatel Shanghai Bell, Mitsubishi, Samsung, Intel, Motorola (Sequans and UCL forfeited, for not having specific text)

The contributions presented: 273, 300r1, 366, 282, 337, 405r1, 285r2, 374r1, 457, 333.

Minnie Ho volunteered as one of the DL-MIMO Rapporteur Group (RG) chairs. Chair solicited additional volunteers. Minnie Ho described the work plan for the RG.

Adjourned at 10:05 PM.

3) Wednesday, May, 14 2008

Meeting resumed at 8:10 AM, continuing with the SDD comments. The DL_ctrl and DL_PHY rapporteur groups are still on breakout sessions.

Contributions presented to support comments are: 475r2 , 434r1, 455r1.

Break at 10:10 AM. Resumed at 10:30 AM.

Contributions presented 476r1, 280, 324r1, 147r2, 046r1

Break at 12:15PM.

Resume at 1:45 PM, with the report of the DL_PHY Rapporteur group, made by Ron Murias. The Report is in document 518, and the output document is 517. The text will be voted on Thursday. DL Ctrl RG did not finish and their output will be presented and voted on Thursday.

The meeting continued with presentation of the contributions on subjects of the Call for Contributions, IEEE 802.16m-08/016r1. Presentations were made per subject and per source. Each contributor then presented one of his/her contributions per each subject.

The presentations started with HARQ. The following presentations were given: 336, 334r1, 322, 274, 287.

Break at 3PM.

Resume at 3:20PM with contributions 305r2, 454r1, 353, 340, 290r1, 411, 395, 386.

Continuing with contributions on the preamble: 299r1, 483r1, 485r1, 470r1, 371r2, 306r3, 478r1 and 319r1.

Recess at 6:00PM till Thu. Morning 8:00AM.

4) Thursday, May, 15 2008

Meeting continued on 8:20 AM, with the preamble presentations. 192r2, 354r1, 286r1, 385r1, 479r3

Discussion continued to the presentations of contributions about UL control. The contributions presented are: 417r1, 471, 303r2, 447r1, 321

Break 10:10 AM.

Meeting resumed at 10:30AM with more UL control contributions: 282r2, 284r1, 272, 384.

Harmonized contributions 317r3, 360r3, 264r3 were presented in support of deferred SDD comments.

12:10PM, Break for lunch till 1:30PM

Continue with SDD comments, harmonized contributions 425r2, 316r2, 147r3, 467r2. All the SDD comments, which arrived on time were treated.

Discussion continued with a report by Roshni Srinivasan on the activities of the DL_Ctrl RG and introduced the harmonized text in IEEE C802.16m-08/297r1. The group also uploaded a report IEEE C802.16m-08/298r1 and a commentary database IEEE 802.16m-08/514r2.

Motion: To adopt C802.16m-08/297r1 and authorize the SDD editor to incorporate the text in C802.16m-08/297r1 into the SDD.

Moved by: Roshni Srinivasan

Second: Mark Cudak

No discussion was held and there was no objection to adopt the text.

Accepted with no objection

Ron Murias uploaded document 517r1, which was introduced on Wednesday, except for a small modification.

Motion: To adopt C802.16m-08/517r1 and authorize the SDD Editor to incorporate the text in C802.16m-08/517r1 into the SDD.

Moved by: Ron Murias

Second: Mark Cudak.

Accepted with no objection

Recessed at 3:10PM.

Resumed at 3:30PM, continuing with late comments. Contribution 402r2 was presented. The output from the 16jm Relay discussions was introduced as comments into the database.

Motion: to constitute a relay ad hoc with the following scope:

- Handle relay-related architecture contributions and comments that were deferred
- To recommend a specific relay network and protocol architecture to TGM
- Handle relay-related frame structure contributions and comments

Moved: Peiyong Zhu

Second: Jerry Sydir

No discussion, no objection.

Motion carries unanimously.

Chair introduced the closing report, document IEEE 802.16m-08/021, which describes the issues for the next call for contributions, introduces the new RG to be reconstituted, and the next call for comment on new material on the SDD. Discussion followed.

Motion: To accept the commentary database IEEE 802.16m-08/018r2 and authorize the editor to generate the next version of the SDD IEEE 802.16m-08/003r2

Moved by: Shkumbin Hamiti

Second: Jaehee Cho

Motion carries unanimously.

Continuing with the presentations on UL PHY (UL pilots and resources). The presentations made are 427, 293r6, 445, 295r1, 296r1, 389r3, 266.

At 6PM, chair asked for any other business no response.

Motion to adjourn:

Moved by: Ron Murias

Second: Mohan Fong

In favor: 30 Against: 4

Adjourn till the next meeting.

Appendix
Roll Call results for Comment 035 in database IEEE 802.16m-018

Name\Family	Name\Given	Accept	Reject	Abstain
Abrishami	Ray			
Ahmadi	Sassan	1		
Ahn	Dong Hyun			
Ahn	Jeehwan			
Ahn	JunBae			
Albanese	Roberto			
Andelman	Dov			
Arefi	Reza			
Bacioccola	Andrea			
Barber	Phillip			
Bims	Harry			
Boariu	Adrian			
Boer	Jan			
Bogenfeld	Eckard			
Bourlas	Yair		1	
Boyer	Adrian	1		
Brandt	Achim			
Branlund	Dale			
Brooks	Terri			
Byman	Aaron			
Cai	Sean			
Carlo	James			
Castelow	David			
Cha	Jaesun			
Chae	Suchang			
Chang	Jae Hwan			
Chang	Sungcheol			
Chang	Xin			1
Chang	YoungBin			
Chayat	Naftali			
Chayer	Rémi			
Chen	Kwang-Cheng			
Chen	Ren-Jr			
Chen	Wei-Peng			
Chen	Yuqin			

Cheng	Paul		1	
Chindapol	Aik			
Chion	Hua (Mary)		1	
Chiu	Chun-Yuan		1	
Cho	HanGyu		1	
Cho	Jaehee	1		
Cho	Jaeweon			
Cho	Myeon-Gyun			
Cho	Seokheon			
Choi	Hokyu	1		
Choi	Hyoung-Jin			
Choi	Hyung-Nam			
Choi	In-Kyeong			
Choi	Jinsoo			
Choi	Joonyoung			
Choi	Yang-Seok	1		
Chong	Chia-Chin			
Chou	Chao-Chin		1	
Chou	Chie Ming		1	
Chou	Joey			
Chow	Jerry		1	
Chui	Jimmy			
Chujo	Takafumi			
Chun	Jin Young			
Chung	Ji Wook			
Colban	Erik			
Comstock	David			
Costa	José			1
Crowley	Steven			
Cudak	Mark			
Davydov	Alexey			
Dayal	Pranav			
De Segovia	Carlos			
Dhaliwal	Upkar			
Do	Mi-Sun			
Dong	Xiaolu			
Doostnejad	Roya			
Du	Ying			
Eastwood	Lester			
Eklund	Carl		1	

Emeott	Stephen			
Erlihson	Michael			
Ernström	Per			
Etemad	Kamran			
Eun	Yu-Chang			
Fahldieck	Torsten			
Fang	Huiying			
Feder	Peretz			
Feng	Shulan			
Fong	Mo-Han			
Freedman	Avraham			1
Fu	I-Kang		1	
Fwu	Jong-Kae (JK)			
Gal	Dan			
Glassford	Rob			1
Goh	Wee Peng			
Goldhamer	Mariana			
Golshan	Reza			
Gosteau	Jeremy			
Grandblaise	David			
Guvenc	Ismail			
Hadad	Zion			
Hahn	GeneBeck			
Hamiti	Shkumbin		1	
Hamzeh	Belal			
Han	Seung Hee			
Hart	Mike			
Hiddink	Gerrit			
Higuchi	Keisuke			
Ho	Chieh-Yuan		1	
Ho	Chung-Lien		1	
Ho	Minnie			
Hsiao	Chang-Lung			
Hsiao	Ying-Chuan			
Hsieh	Ching-Tarnng			
Hsieh	Yu-Tao			
Hsu	Chung-Hsien		1	
Hsu	Hsien-Tsung			
Hsu	Jen-Yuan			
Hsu	Yuan-Ying			

Hu	Teck			
Huang	Cancan			
Hui	Junhong			
Humbert	John			
Hur	Yerang			
Hwang	In Seok			
Ihm	Bin-Chul			
Ikegami	Tetsushi			
Inklebarger	Tom			
Iyengar	Rajagopal			
Jan	Yih Guang		1	
Jang	Jaehyuk	1		
Jee	Junghoon			
Jeniston Deviraj	Klutto Milleth	1		
Jeon	Hyung Joon			
Jeong	Moo Ryong			
Jha	Uma			
Ji	Baowei			
Jiang	Liang			
Jin	Lei		1	
Jin	Sunggeun			
Johnsson	Kerstin			
Johnston	David			
Joo	Panyuh			
Jung	Young-Ho			
Kanai	Takeo			
Kang	Heewon			
Kang	Hyunjeong			
Kang	Seung Hyun			
Kaplan	Ted			
Kato	Tsuguo	1		
Kelman	Ofer			
Khalona	Ramon			
Kiernan	Brian			
Kim	Bong Ho			
Kim	Changkyoon			
Kim	Dae-Joong			
Kim	Ronny (Yong-Ho)		1	
Kim	Sang			
Kim	Sang Youb			

Kim	Seung-Jun			
Kim	Sungkyung			
Kim	Taeyoung			
Kim	Young Kyun			
Kim	Young-Il			
Kim	Young-jae			
Kim	Youngho			
Kim	Yungsoo			
Kishigami	Takaaki			
Kitroser	Itzik			
Koc	Ali	1		
Koo	Changhoi			
Koorapaty	Havish			
Korakis	Thanasis			
Korkmaz	Gokhan			
Kuchi	Kiran	1		
Kuze	Toshiyuki			
Kwak	Byung-Jae	1		
Kwak	Jin Sam		1	
Kwon	Dong Seung	1		
Kwon	Young Hyoun		1	
Labonte	Sylvain			
Labs	Jonathan			
Lamoureux	Pierre			
Lee	Chun Fang			
Lee	Hyun			
Lee	Hyunjeong			
Lee	HyunWoo			
Lee	Jin			
Lee	Jungwon			
Lee	Ki-Dong		1	
Lee	Kyu Ha			
Lee	Mihyun			
Lee	Sang Min			
Lee	Sang-Ho			
Lee	Seung Joon			
Lee	Sukwoo			
Lee	Sungjin	1		
Lee	Wookbong			
Lee	Yang-Han			

Lee	Youn-Tai		1	
Lee	Yung-Ting			
Lestable	Thierry			
Levanda	Matty			
Li	Guangjie	1		
Li	Richard		1	
Li	Shaohua			
Li	Thomas			
Li	Yajuan			
Li	Zexian			
Liang	Zongchuang			
Liao	Pei-Kai			
Lim	Aeri			
Lim	Geunhwi			
Lim	Hyoung Kyu			
Lim	Junsung			
Lim	Kwangjae			
Lin	Tzu-Ming			
Lin	Yuan Pin			
Lindgren	Stefan			
Liu	Hang			
Liu	Yang			
Liu	Ying			
Livschitz	Michael			
Lo	Titus			
Loa	Kanchei			
Lu	Jianmin			
Lu	Yanling	1		
Lu	Zhaohua			
Lynch	Michael			
Madhian	Mohammad		1	
Maez	David			
Magee	David			
Maggi	Giovanni			
Maheshwari	Shashikant			
Makhijani	Mahesh			
Malka	Shlomo			
Mao	Ronald			
Marks	Roger			
Matache	Adina			

Matsumoto	Wataru			1
Mazzarese	David			
McBeath	Sean			
Meddour	Djamal-Eddine			
Migaldi	Scott			
Min	Chan Ho			
Mohanty	Shantidev			
Molisch	Andreas			
Mollenauer	James			
Monogioudis	Pantelis		1	
Moon	Sungho		1	
Mukherjee	Sayandev			
Murias	Ronald			
Music	Wayne			
Nagai	Yukimasa			
Naguib	Ayman			
Nakamura	Kenichi			
Nakamura	Michiharu			
Nakatsugawa	Keiichi			
Nguyen	An			
Noh	Minseok			
Nohara	Mitsuo			
Norin	John			
Novak	Robert		1	
Oh	Changyoon			
Oh	Min-Seok		1	
Okuda	Masato			
Olszewski	Kim			
Ono	Ryoji			
Orlik	Philip			
Ostling	Per-Erik		1	
Papathanassiou	Apostolos			
Park	DS	1		
Park	Jeongho			
Park	Michael			1
Park	Youn Ok			
Patel	Vijay			
Peng	Yan			
Piggin	Paul			
Pirhonen	Riku			

Pollard	Adam			
Popoli	Robert			
Poulin	Darcy			
Pourahmadi	Vahid			
Power	Kevin			
Probasco	Scott			
Puri	Anuj			
Puthenkulam	Jose			
Qi	Xin			
Qian	Nanjian (Jeff)			
Qin	Fei			
Qu	Hongyun		1	
Raghavan	Arvind			
Ramachandran	Shyamal			
Reddy	Ranga			
Ren	Fang-Ching			
Ren	Weili			
Riegel	Maximilian			
Roh	Kwanhee			
Roh	Wonil			
Rong	Zhigang			
Rouz	Adel			
Rubin	Philip			
Ruck	Herbert			
Ryu	Kiseon			
Saed	Aryan			
Saifullah	Yousuf			
Saito	Kenji			
Sambasivan	Sam			
Sandhu	Sumeet			
Sarris	Ioannis			
Sayana	Krishna			
Sayeedi	Shahab			
Schaepperle	Joerg		1	
Schlanger	Gary			
Schumacher	Joseph			
Seagren	Chris		1	
Senarath	Gamini			
Shah	Jigar			
Shalash	Ahmed			

Shang	Zheng			
Shekalim	Peretz			
Shen	Gang			
Sherman	Matthew			
Shim	Jaejeong (Brian)			
Shin	Hong Sup			
Shively	David			
Shono	Takashi			
Shyy	D. J.			
Simkins	James			
Simpson	Floyd			
Sivanesan	Kathiravetpillai			
Sjoberg	Sten			
So	Tricci			
Son	Jung Je			
Son	Yeongmoon			
Song	Ting-Chen (Tom)		1	
Song	Young Seog			
Soong	Anthony			
Srinivasan	Roshni			
Stacey	Robert			
Stanwood	Kenneth			
Steer	David			
Su	Chih-Wei			
Su	Hsuan-Jung			
Su	Xin			
Sukiasyan	Aram			
Sun	Li-Hsiang			
sun	sheng			
Sun	Will			
Sun	Yakun			
Sun	Yong			
Suo	Shiqiang			
Sydir	Jaroslav	1		
Sydor	John			
Takai	Mineo			
Takatani	Yukihiro			1
Tao	Jeffrey			
Tao	Ming-Hung			
Taori	Rakesh			

Taylor	Shawn			
Tee	Lai King (Anna)			
Thakare	Kiran			
Thome	Timothy		1	
Ting	Pangan			
Tong	Wen			
Tonnerre	Arnaud			
Touboul	Assaf			
Tsai	Chang-Lan			
Tsai	Shiau-He		1	
Tseng	Fan Shuo		1	
Tzavidas	Stavros			
Ullmann	Rainer			
Urban	David			
Vadgama	Sunil			
van Leeuwen	Richard			
Vannithamby	Rath	1		
Venkatachalam	Muthaiah			
Viorel	Dorin			
Visotsky	Eugene			
Vook	Frederick			
Vrzic	Sophie			
Wang	Arthur			
Wang	Chun-Yen			
Wang	Fan			
Wang	Guo Qiang			
Wang	Lei		1	
Wang	Michael			
Wang	Shu			
Wang	Shu-Shaw		1	
Wang	Xiaoyi			
Wang	Yanhong			
Wang	Zongkai			
Watanabe	Fujio			
Wieczorek	Alfred			
Wright	Charles			
Wu	May			
Wu	Mingquan			
Wu	Xuyong			
Wu	Yingzhe			

Xiang	David			
Xie	Chengjie		1	
Xu	Hua			
Xu	Ling		1	
Xu	Weijun			
Yaghoobi	Hassan			
Yang	Hongwei		1	
Yang	Hua			
Yang	Lian		1	
Yang	Rongzhen			
Yang	Xiangying	1		
Yang	Yunsong			
Yanover	Vladimir			
Yeh	Choong Il			
Yin	Hua-Chiang			
Yin	Hujun			
Yoon	Chulsik			
Yoshii	Isamu			
Youn	Aeran			
Yu	Hyunkyu			
Yun	Jungnam			
Yun	Sangboh			
Yuza	Masaaki			
Zeira	Eldad			
Zhang	Jinyun			
Zhang	Kaibin		1	
Zheng	Hongming	1		
Zheng	Yan-Xiu			
Zhong	Xiaofeng			
Zhou	Fei Frank			
Zhou	Hua			
Zhou	Shidong			
Zhou	Yuefeng		1	
Zhu	Chenxi			
Zhu	Hufei			
Zhu	Peiyong			
Zhuang	Jeff			
Zou	Ning			

Total**20****43****7**

