

Session #40 802.16mmr Closing Report – 11/17/05

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Venue:

IEEE 802.16 Session #40, Vancouver, Canada

Base Document:

None

Purpose:

SG Meeting organization

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Session #40 802.16mmr
Closing Report – 11/17/05
2nd Study Group Meeting on Mobile
Multi-hop Relay in IEEE 802.16

Chair: Mitsuo Nohara

Time: 08:00 – 12:00, Tue. 15 – Thu. 17 Nov., 2005

Place: British Room, The Fairmont Hotel Vancouver

Objectives of this 2nd SG Meeting

- To exchange views on Mobile Multi-hop Relay
 - with contributions provided, referring to the 2nd call for contributions,
 - especially on the PAR and 5 Criteria
- To have open comments and discussions, and
- To plan future activity and schedule towards the PAR and 5 Criteria preparation (to be completed at the #41 Meeting in New Delhi, Jan. '06.)

Outcomes

- **Summarized the 1st SG meeting held in Taipei, Sept. 2005.**
- **Conducted Three-days Contribution Presentations**
 - **23 Contributions**
 - **11 Contributions with main focus on the Scope,**
 - **7 on Technical, and**
 - **5 on PAR.**
- **Started discussions on the PAR and 5 Criteria Preparation.**
- **Set future activity plan and schedule towards the PAR and 5 Criteria preparation (to be completed at the #41 Meeting in New Delhi, Jan. '06.)**

Contributions

2nd Call for Contributions

Areas of activities:

- Assess feasibility of Multi-hop Relay for fixed / mobile terminal including PHY/MAC modifications;
- Study the impact on PHY with enhancement of normal frame structure and backward compatibility with 802.16 TGe PMP mode;
- Study the impact on MAC protocols to be newly added for the relay networking including handover cases;
- Study spectral scenario including frequency reuse and interference among the links between Base station (BS) and Relay station (RS), and ones between RS and Mobile/Subscriber station (MS/SS);
- Study the security between BS and Mobile Subscriber station (MS) via RS;

2nd Call for Contributions

Contribution Provisions:

In preparation for the second SG Meeting, further contributions addressing the above topics are requested. The contributions should provide:

- Technical issues relevant to a “PAR and Five Criteria” preparation and other works**
- Direction of MMR activities for high level issues such as service scenarios, network topologies, etc.**

Note that the Study Group plan is to initiate discussions on and create a first draft text of a “PAR and Five Criteria” during Session #40.

Contribution Presentations

* List of 1st Authors:

T Ozgur Oyman
S Jimin Liu
S Deng Shiqiang
T Kyungjoo Suh
S D. J. Shyy
S Masahito Asa
P Byoung-Jo Kim
S Weng Tong
T Aeran Youn
S Kenji Saito
S Amir Rubin

S Mariana Goldhamer
T Gang Shen
T Xiaobing Leng
T Fang-Ching Ren
T Tzu-Ming Lin
S D. J. Shyy
S Shyamal Ramachandran
P David Steer
P Yousuf Saifullah
P Mitsuo Nohara
S I-Kang Fu
P Mike Hart

(23 Presentations in total)

• Each of those 23 Presentations will be categorized into:

P "PAR & 5 Criteria" / **S** Scope, Scenario and System Definition
/ **T** Technical Analysis and Design

2nd SG Meeting Presentation Program, amended

Day#1-1 08:00 - 09:40 Tue. 15 Nov., 2005

No.	Ref.	1 st Authour	Affiliation	Title
1*	Cmmr-05_020	Mariana Goldhamer	Alvarion	Advantages of a Coexistence Protocol for Relay Operation
2*	Cmmr-05_040	Kenji Saito	KDDI R&D Labs.	Considerations on Mobile Multi-hop Relay for IEEE802.16
3*	Cmmr-05_032	Masahito Asa	Motorola	Recommendations for the Scope and Purpose of the Mobile Multihop Relay Task Group
4	Cmmr-05_024	Jimin Liu	Aclatel Shanghai Bell	Self-backhaul Relay

Day#1-2 10:00 - 12:00 Tue. 15 Nov., 2005

5	Cmmr-05_026	Deng Shiqiang	Huawei Technologies	Recommendation on Mobility Management of Multi-hop Relay
6	Cmmr-05_030	D. J. Shyy	MITRE	Military Usage Scenario for 802.16 MMR
7	Cmmr-05_031	D. J. Shyy	MITRE	CDMA2000 Network Repeater Deployment Experience.
8	Cmmr-05_033	Shyamal Ramachandran	Motorola	A Case for Multihop Backhaul
9	Cmmr-05_041	I-Kang Fu	National Chiao Tung Univ.	System Performance of Relay-based Cellular Systems in Manhattan-like Scenario

* Each presentation consists of 15-minutes presentation and 5-minutes Discussions.

2nd SG Meeting Presentation Program

Day#2-1 08:00 - 09:40 Tue. 15 Nov., 2005

No.	Ref.	1st Authour	Affiliation	Title
10	Cmmr-05_042	Amin Rubin	Intel	Cooperative Relaying System
11	Cmmr-05_022	Ozгур Oyman	Intel	Throughput Improvements in Micro-Cellular Multi-Hop Networks
12	Cmmr-05_023	Gang Shen	Alcatel Shanghai Bell	Recommendation on 802.16 MMR with Backward Compatibility
13	Cmmr-05_025	Xiaobing Leng	Aclatel Shanghai Bell	A frame structure for mobile multi-hop relay with different carrier frequencies

Day#2-2 10:00 - 12:00 Tue. 15 Nov., 2005

14	Cmmr-05_027	Fang-Ching Ren	ITRI	Recommendation on PMP Mode Compatible TDD Frame Structure
15	Cmmr-05_028	Kyungjoo Suh	Samsung Electronics	Open Problems in Mobile Multi-hop Relay System
16	Cmmr-05_029	Tzu-Ming Lin	ITRI	Modification for enabling the RS Operations
17	Cmmr-05_038	Aeran Youn	LG Electronics	Decision method of relayed MS in MMR-enabled networking
18	Smmr-05_034	Byoung-Jo Kim	AT&T	Analysis of Simple Infrastructure Multihop Relay Wireless System
19	Cmmr-05_036	Wen Tong	Nortel Networks	MMR Topology Study with 6 Configurations

*** Each presentation consists of 15-minutes presentation and 5-minutes Discussions.**

2nd SG Meeting Presentation Program

Day#3-1 08:00 - 09:40 Thu. 16 Nov., 2005

No.	Ref.	1 st Authour	Affiliation	Title
20	Cmmr-05_035	David Steer	Nortel Networks	MMR PAR and Five Criteria Draft
21	Cmmr-05_037	Yousuf Saifullar	Nokia	Issues and Scope of MMR
22	Cmmr-05_043	Mike Hart	Fujitsu Lab. Europe	Input text to the PAR and Five Criteria
23	Cmmr-05_039	Mitsuo Nohara	KDDI	PAR and Five Criteria for 802.16 Mobile Relay

- Each presentation consists of 15-minutes presentation and 5-minutes Discussions.
- Discussions on PAR and 5 Criteria Preparation to follow.

Day#3-1 10:00 - 12:0 Thu. 16 Nov., 2005

Discussion on PAR and 5 Criteria Preparation

PAR and 5 Criteria Discussions

***see ref. 80216mmr-05/024**

- Motion to adopt C802.16mmr_05_39 as initial material for drafting PAR and updating based on discussion
- Issued by Mitsuo Nohara; Second by Jungje Son; Approved unanimously.

The following proposed text got major support :

- The subscriber station operating according to existing standard shall be capable of operating with MMR enabled BS with no modification and with an RS with little or no modification.

Future Activity and Schedule

Tentative Schedule

- **PAR & 5 Criteria Preparation towards #42 Plenary**

Year	Month	802.16 session	Actions
2005	July	#38 Plenary	Propose to form SG – Approved
	Sept.	#39 Interim	SG: the 1st meeting
	Nov.	#40 Plenary	SG: the 2nd meeting
2006	Jan.	#41 Interim	SG: the 3rd meeting – Complete a PAR
	Mar.	#42 Plenary	802 EC endorses PAR approval
	May	#43 Interim	TG: the 1st meeting
	July	#44 Plenary	TG: the 2nd meeting
	Sept.	#45 Interim	TG: the 3rd meeting
	Nov.	#46 Plenary	TG: the 4th meeting

To Do List

- **At This Meeting**
 - Made PAR & 5 Criteria Discussions Base
- **After This Meeting towards Next #41 Meeting**
 - Comments and Discussions
- “Call for Contributions/Comments on the PAR and 5 Criteria Preparation”
- **At the Next #41 Meeting**
 - Complete “PAR & 5 Criteria” ready
 - Tutorial Preparation (to be held in #42 Session, Mar. 2006)

Motion to SG

- Motion: To empower the chair to combine all of proposed text during second MMR SG session and to produce the baseline as draft for PAR and 5 Criteria for consideration at the next session.
- Proposed: Mike Hart
- Seconded: Jaeweon Cho
- Approved by Unanimous voice vote

Motion to SG

- Motion: To empower the chair to issue the call for contributions and comments on the baseline draft for PAR and 5 Criteria such that they can be considered at the session 41, closed by 6th January, 2006.
- Proposed: Mike Hart
- Seconded: J Kim
- Approved by Unanimous voice vote

Motion to SG

- Motion: To empower the chair to ask the WG for extending MMR SG to next plenary at WG plenary
- Proposed: J Kim
- Seconded: Mike Hart
- Approved by Unanimous voice vote

Motion to WG

- Motion: To renew the Mobile Multihop Relay Study Group through the March 2006 IEEE 802 Plenary Session
- Proposed: Mitsuo Nohara
- Seconded: Jose Puthenkulam
- Approved by Unanimous voice vote

See you in India!

