IEEE P802.19 Wireless Coexistence

	[Meeting Minutes for TVWS Coexistence]				
Date: 2009-04-28					
Author(s):					
Company	Address	Phone	email		
Huawei Technologies Co., Ltd.	Harbour Networks Building, Zhongguancun Software Park, No.8, Dongbeiwang West Road, Haidian District, Beijing, China, 100094	Tel: +86-10-8282- 9148 Mobile: +86 13693140745	wanghaiguang@huaw ei.com		
	Huawei Technologies	Company Address Huawei Technologies Co., Ltd. Huawei Technologies Co., Ltd. Address Harbour Networks Building, Zhongguancun Software Park, No.8, Dongbeiwang West Road, Haidian District, Beijing,	Company Address Harbour Networks Building, Zhongguancun Software Park, No.8, Dongbeiwang West Road, Haidian District, Beijing, 13693140745		

Abstract

In this meeting, Richard Paine@Self presented coexistence use cases on TV White Spaces, document 16r1.

Notice: This document has been prepared to assist IEEE 802.19. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

ATTENDANCE

Attendees		
Name	Affiliation	
Steve Shellhammer	Qualcomm, Inc.	
(Chair)		
Haiguang Wang	Huawei Technologies Co., Ltd.	
(Secretary)		
Alex Reznik	InterDigital	
Chen Hou-Shin	Thomson	
Fangming Xu	Samsung	
Gerald Chouinard	CRC	
Greg Phillips	AirTegrity Wireless	
Herschel Stiles	Voyant International	
Hyunduk Kang	ETRI	
Ivan Reede	AmeriSys Inc	
Julan Hsu	Samsung Electronics	
Kaberi Banerjee	Self	
Mark Cummings	enVia Technology Partners, Inc	
Monisha Ghosh	Philipps	
Paul A. Lambert	Marvell Semiconductor	
Nancy Bravin	Self	
Reddy, Ranga	CIV USA USAMC	
Richard Paine	Self	
Richard Kennedy	Research In Motion	
Sung-jin You	ETRI	
Thomas Kolze	Broadcom	
Wen Gao	Thomson	
Tushar Moorti	Broadcom	
Victor Hou	Broadcom	

1.00 Meeting called to order

Steve 2 7:03 pm

The meeting was called to order by Steve Shellhammar.

2.00 Attendance

Steve 1 7:05 pm

Attendees are required to send their name and organization in through email to the Chair and Secretary.

3.00 Approval of Previous Meeting Minutes

Steve 3 7:08 pm

The chair required to approve the meeting minutes of previous meeting. However, some attendee asked where the document was. There was no further comment on this issue.

4.00 Meeting Redial

Steve 1 7:09 pm

Due to the echo problem, the attendees agreed to redial in the meeting.

5.00 Review IEEE Patent Policy

Steve 1 7:11 pm

Submission - 2 - Haiguang Wang, Huawei

The patent policy slides were brought up. There is no specific requirement for them to be read word for word.

6.00 Presentation on TV White Space Coexistence Use Richard 58 7:12 pm Cases Paine

Richard Paine gave a presentation on the TV White Space coexistence use cases. The presentation started with slide number 2.

Slide 2: WhiteSpace coexistence use cases

Richard explained the three use cases.

Some attendee asked what the meaning of "WS Providers" was. Richard replied that "WS provider" refers to the service provided with white space frequency.

Ranga Reddy mentioned that some large service providers had spent billions of dollars to buy the spectrum auctioned in 700 MHz. He suspected the service provider would use the TV White Space Spectrum. Mark says that if FCC auctions more spectrums, the service providers will spend some more billions of dollars to buy them. However, if the FCC frees the spectrum, the service providers will start thinking about how to use them.

Slide 3: WhiteSpace provider macro coexistence use cases

Richard presented the Macro coexistence use cases of white-space providers. Victor asked for clarification of the subtitle. Richard explained "that" is missed between "spectrum" and "is" in the subtitle. The subtitle after modification would be "All technologies assumed to want to use The TV Spectrum that is available".

Slide 6: WiMAX Fixed WWAN Provider Use of Whitespace

Some attendee mentioned that WiMax would not use White Space in rural area. Mark replie that, if the service provider does not have spectrum, and the white space spectrum is available, then the service provider will use the white space.

Some attendee mentions that TVBD with 40 mW may still need access the database. According to the FCC final R & O, the TVBD may have to lower its transmission power to 40 mW when it operates on a channel adjacent to a TV channel currently used by incumbent users. Steve mentions that the TVBD may not be required to access the database when their transmitting power is lower than 50 mW.

There were some discussions on the information contained in the database. Mark says that the database will only record the information of protected devices/region. Information of unlicensed TV White Space devices is not recorded in the database.

Ivan disagreed on what Mark said and there is no conclusion on this issue.

Someone asked Richard why he put WiMAX for fixed use case only. After a short consideration, Richard agreed to take the word "fixed" out from slide 6.

Slide 7: Local TV Broadcast

Ranga Reddy asked whether the White Space was also used for rebroadcast. The answer from Richard was yes.

Ivan mentions that if the rebroadcasters are outside the protect contour of the protected transmitters and they (the rebroadcaster) use different channels, then they are not incumbents already.

Nancy says that broadcasting/rebroadcasting devices are not necessarily to be incumbents.

Slide 8: Microphone Provider Use of Whitespace

Mark asks whether, in the presentation, Microphone is a protected device or not a protected device. Richard answers that the microphone is not protected devices.

Mark says that only those microphones registered in the database will be protected. Else, they will not be protected. Gerald has the understanding that if the user of micro phone was not a broadcaster, the database may not accept the registration. Mark disagrees. Concensus on this point is not reached.

Slide 9: WhiteSpace Home Use Cases

Richard gave a good explanation of the home use cases.

Mark says that he wants to use the picture to create a use case in which a building with many flats is deployed with white space devices for communication. People will see the congestion in spectrum usage.

Ivan says that, with such a building, the cable TV service provider will plant TV rebroadcaster outside the building and try to occupy as many channels as possible.

Mark mentions that the WI-FI spectrum today in urban area is very congested.

Slide 10: Home Whitespace Coexistence Use Case

Richard mentions that he will take the word "fixed" out from the WiMax use cases in this slide.

Some attendee reminds Richard that he should not differentiate the use cases with power level of 100 mW and 40 mW

Slide 11: Provider and Home Coexistence Use Case Conclusions

Richard presented the conclusion of the use cases. After that, the attendees discussed issues about the database. Richard mentions that Mark has attended a meeting of the database consortium group. According to Mark's opinion, the database service provider will only do what they are required to do.

As there was no time left for Richard Kennedy to present his slides, document 17r0. Steve says Richard Kennedy can give a presentation early in next meeting.

6.00 Meeting closed

Submission

Chair 0 8:10 pm

- 4 -