

Project	P1900.7: Radio Interface for White Space Dynamic Spectrum Access Radio Systems Supporting Fixed and Mobile Operation http://www.dyspan-sc.org/
Title	Minutes of London meeting 23-24 April 2013
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Date Submitted	May 8, 2013
Source(s)	Muhammad Zeeshan Shakir Muhammad.shakir@qatar.tamu.edu
Re:	
Abstract	
Purpose	
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**IEEE 1900.7 WS Radio WG
23-24 April, 2013
London, UK
Acting Chair: Oliver Holland
Secretary: Muhammad Zeeshan Shakir**

PM1: Tue Apr 23, 2013, 13:30 PM

1. Call to Order

The meeting was called to order by the WG Chair on Tuesday April 23, 2013 at 13:30 PM London time.

- The WG secretary performed roll call for attendance:

Attendance: Muhammad Aljuaid, Stanislav Filin, Hiroshi Harada, Vinh Dien Hoang, Oliver Holland, Ignatius Lee, Dongming Li, Dominique Noguét, Muhammad Zeeshan Shakir, Dariusz Wiecek, Xin Zhang, Tinku Rasheed.

Summary:

- 12 members are present.
- 9 voting members/15 attendance, the quorum is achieved.

2. Approval of Agenda

The Chair presented agenda for the London meeting. After discussions the updated agenda is uploaded to mentor. The WG Secretary presented following motion:

Motion

To approve London meeting agenda 7-13-0020-01

Moved by Hoang

Seconded by Ignatius

The Chair asked for any discussions. None. The question was called. The Chair made a call for any objections. No objections.

The motion was approved with unanimous consensus.

3. Call for Essential Patent Claims

The Chair showed patent policy to the group.

The Chair made a call for essential patent claims. No new essential patent claims were indicated.

4. Approval of minutes of Mar 13 meeting minutes 7-13-0019-01

The WG Secretary presented minutes of Mar 13 meeting briefly. Three contributions were presented in Mar 13 meeting. Following are the summary of the minutes of Mar 13 meeting:

1. Contribution 1: Analysis of scenarios from an access scheme perspective **7-13-0015-00.**
2. Contribution 2: Overview of FBMC PHY **7-13-0016-00.**
3. Contribution 3: TVWS Access with Polarization Adaption **7-13-0017-00.**

Motion

To approve Mar 13 meeting minutes 7-13-0019-01

Moved by Xin

Seconded by Ignatius

The Chair asked for any discussions. None. The question was called.
The Chair made a call for any objections. No objections.

The motion was approved with unanimous consensus.

5. Opening report

The WG Chair presented the opening report **7-13-0022-00**

The Chair asked for any discussions. None. The question was called.
The Chair made a call for any objections. No objections.

Session PM1 ended 13:15 PM.

PM1: Wed Apr 24, 2013, 13:50 PM**1. Call to Order**

The meeting was called to order by the WG Chair on Wed April 24, 2013 at 13:50 PM London time.

- The WG secretary performed roll call for attendance:

Attendance: Muhammad Aljuaid, Stanislav Filin, Vinh Dien Hoang, Oliver Holland, Ignatius Lee, Dongming Li, Dominique Noguét, Muhammad Zeeshan Shakir, Dariusz Wiecek, Xin Zhang, Tinku Rasheed.

Summary:

- 11 members are present.
- 9 voting members/15 attendance.

2. Technical Contributions**2.1 Contribution to section 9 of draft standard: PHY Layer**

The WG Chair requested the contributors of contribution no. **7-13-0022-03** to present their contribution to the WG members. Dominique presented the contribution.

The WG Chair called for any questions and concerns related to the contribution. Xin asked about the difference between the previous contributions on this and this contribution. Dominique replied that this contribution is more focus on benefits of FBMC in terms of ACLR and to show that how FMBC is made presented in draft standard. There is no difference between the previous contributions and this one in terms of system. Xin further asked about the mode parameters presented in table 3 and said is there any limitation on performance due to model selection? Dominique explained that this has been explained in detailed in scenario document and very high speed fixed scenarios are covered by Mode4K and variable scenarios are covered by Mode0.25K.

Hoang asked about the transmitter requirements. He said we have to clearly specify that the spectrum mask is constrained by local regulations and we may need to specify who is this in this case? Oliver said like local regulations are may be different in different regions. Dominique said in 802.11 they also have transmitter requirement section and it is related. Hoang asked about did they specify who the regulation bodies are. This is what we don't know. Dominique said no they did not say that and further explained that any radio system needs to be regulated with some local regulations and may be from that document we can gather some information to be used here. Stanislav said it may be better if we give such information in Annex to the draft standard. Dominique asked what you would like to see in transmitter requirement section. Stanislav suggested to always adding such sentences to support radio regulations. Dariusz said maybe we can give some examples like region 1 Europe and Africa and region 2 US Canada etc. and described the regulations. Many countries follow one regulation. Dominique said if we will have

more examples we will populate this document with more examples. Hoang agreed on this and said we can do that. Stanislav said we can keep it as it is and find the best place to move it somewhere in draft later.

The WG Chair said we should have motion to include this contribution to the draft. The WG Secretary presented the following motion to the WG members:

Motion

To include contribution 7-13-0022-03 into the current draft standard

Moved by Dominique

Seconded by Hoang

The Chair asked for any discussions. None. The question was called.
The Chair made a call for any objections. No objections.

The motion was approved with unanimous consensus.

Stanislav thanked Dominique and team for first contribution to the draft standard.

2.2 PHY, MAC, Convergence sub layer within Reference Models

The WG Chair asked Hoang to present the contribution. Hoang presented the contribution **7-13-0023-03**.

Hoang discussed about the interface with GEO location data base and TVES data base. Oliver said about the interface with GEO location is mandatory and interface with spectrum sensing data base is optional. So we should reconsider and confirm whether GEO location is mandatory or spectrum sensing data base is optional. Hoang said all the interfaces are optional and we have to make sure we put all the interfaces. Hoang further clarifies that here optional means device will follow the interface. Oliver said we need to reconsider different sets of interfaces. Hoang asked for next step to include this contribution to the draft. Oliver suggested moving motion to include this in draft standard.

The WG Secretary presented the following motion:

Motion

To include contribution 7-13-0023-01 into the current draft standard

Moved by Hoang

Seconded by Ignatius

The Chair asked for any discussions. None. The question was called.
The Chair made a call for any objections. No objections.

The motion was approved with unanimous consensus.

Muhammad asked about the security sub layer and suggested some changes. Oliver suggested implementing the changes and updating the document. Hoang implemented the changes online in the document and updated the document. Dominique said in section 5.3.4 the interface is depending on what data base provides and it also depends on radio regulations. Hoang said first we will introduce interface with GEO location and then with spectrum sensing. This is draft and we can put both as an optional and discuss further. Dominique asked do we need to compliant with 1900.6. Hoang said once we are clear about which interface going to be included and what is optional and mandatory. Dariusz said why not we have included parameters such as available channels, maximum power of antennas? Oliver said we can include once we have such information. Dariusz said there could be lot parameters in this case. Stanislav proposed not to use 1900.6 for interface with TVWS data base and the reason he explained is that it is not used by the data base manufacturer. PAWS are commonly used as interface with TVWS data base.

Session PM1 ended 15:45 PM.

PM2: Wed Apr 24, 2013, 16:00 PM

1. Call to Order

The meeting was called to order by the WG Chair on Wed April 24, 2013 at 13:50 PM London time.

- The WG secretary performed roll call for attendance:

Attendance: Muhammad Aljuaid, Stanislav Filin, Vinh Dien Hoang, Oliver Holland, Ignatius Lee, Dongming Li, Dominique Noguét, Muhammad Zeeshan Shakir, Dariusz Wiecek, Xin Zhang, Tinku Rasheed.

Summary:

- 11 members are present.
- 9 voting members/15 attendance

2. Technical Contributions:

2.1 Discussion on TVWS Access with Polarization Adaption 7-13-0017-00

The WG Chair asked for any other contributions to the meeting. The Secretary suggested discussing the contribution TVWS Access with Polarization Adaption **7-13-0017-00**. Due to poor

internet quality on Mar. 13 teleconference meeting the discussion between Dariusz and Dongming was discontinued.

Oliver explained that the main concern was types of polarization and how this polarization can be used for sensing and asked Dariusz to add further if he wants. Dariusz said TV receivers equipped with portable indoor antennas can have different polarizations in the same area (e.g. also in different flats in the same building). In such case sensing cannot give any information about incumbents (reception only mode of TV antennas) and also it is not possible to find any practical information about current incumbent (TV receivers) polarizations (which can differ from flat to flat). Such polarization adaptation could be only introduced for some countries where only fixed roof -top antennas with single polarization exist. Dongming said that the channel leakage information can be potentially used to for the sensing. Oliver said we have to employ regulations in standard not research based concepts and he is not aware of any standard that any white space access which cooperate on opportunistic can access white space based on polarization. He said further, how can we verify that the transmitter is polarized in some particular sense? This is a challenge and we must comply with the standards. Dongming said all TV regulations support polarization. Oliver further said do we have any regulation based on such usage for polarization? Dariusz said any country can have any polarization. This is the protection of incumbents. Whether we could conceivable all TV be able to have opportunistic access. Oliver asked for any further comments and no comments received. Stanislav suggested that if there are stiff discussions and concerns it is better to discuss on this topic more. Also Dongming should consider whether it is optional or mandatory feature. Dongming said it is optional and Dariusz agreed and said optional is okay. Oliver said we need to reconsider this in future.

2.2. Discussions on Internet of Things Use case:

Oliver reminded members that everyone should be registered to attend the meeting and to count their attendance. Oliver asked for any other contributions and Dongming said he want to learn about the status of his contribution on internet of things. Hoang asked can we merge all the use cases to create new one. Hoang further asked how many terminals you consider in crane security use case. Dongming said several 10-100 and 5-10 could be possible. Muhammad asked about maximum transmission range. It is 100 m and why not it can be more than this. Dongming said the maximum transmission range is incorrect in the document and he already updated the version with correct range. He will update the document on mentor soon. Muhammad also discussed his reservations on Mbps and suggested that it would be better if Dongming can update the parameters and upload the new version for reconsideration.

6. Next meeting

The WG Secretary presented following motion after discussions meeting dates.

Motion

To approve the following schedule for the IEEE 1900.7 meetings

- June 6, 2013, 08:00AM - 10:00AM, UTC
- June 26, 2013, 08:00AM - 10:00AM, UTC
- July 31, 2013, 08:00AM - 10:00AM, UTC
- August 26-30, 2013, co-located with the IEEE DySPAN plenary session

Moved by Dominique

Seconded by Zeeshan

The Chair asked for any discussions. None. The question was called.
The Chair made a call for any objections. No objections.

The motion was approved with unanimous consensus.

8. AOB

The chair made a call for any other business. None.

The secretary requests all the contributors to adhere the style and format for the contribution documents.

9. Adjourn

The meeting adjourned 16:30 PM.