
IEEE 802.18
Radio Resource - TAG
Meeting Minutes

San Francisco, CA

Date: July 25, 2003

Author: Denis Kuwahara
The Boeing Company
Seattle, WA
Phone: 425-957-5366
Fax: 425-865-6066
Denis.Kuwahara@boeing.com

Abstract

The chair, Carl Stevenson, recounted the activities at WRC-03, where Wireless Access Systems, including RLANs were given a primary allocation in the 5150-5250, 5250-5350, 5470-5725MHz spectrum. He stressed the next challenge is to work with national regulators toward the goal of a common country allocation and certification process.

The chair informed the group how to access the data to be review and commented upon at this meeting. And suggested the following prioritization of efforts:

- 5GHz NPRM
- TGd
- Sri Lanka
- RF Exposure NPRM
- Additional 2.4GHz Spectrum

Two output documents were created:

- 18-03-0041-00-0000_802_Cmts_ET-03-122_d0.doc (Reply comments to 5GHz NPRM)
- 18-03-0042-00-0000_Rep_Cmts_IB-01-185_IB_-02-364_Addtl_2.4GHz_Spectrum_r0.doc

Five motions were passed:

- To submit the updated RR-TAG Policies and Procedures to EC for their approval
- To work with Wi-Fi Alliance Regulatory committee on recent FCC opinions on passive scanning to arrive at a common industry position to be presented to the Commission.
- To confirm Mike Lynch as liaison to TIA Spectrum Policy Working Group
- To accept 18-03-0042-00-0000_Rep_Cmts_IB-01-185_IB_-02-364_Addtl_2.4GHz_Spectrum_r0.doc
- To accept 18-03-0041-00-0000_802_Cmts_ET-03-122_d0.doc (Reply comments to 5GHz NPRM)

The meeting had ten members qualifying for session credit, and twelve others with partial attendance.

The next meeting is scheduled for Singapore in September 2003.

Radio Regulatory – Technical Advisory Group
San Francisco 21-25 July 2003

MONDAY 21 July

Chairman, Carl Stevenson, called the meeting to order Monday at 3:35 pm

Chair had updated his computer prior to the meeting, had challenges preparing for the meeting, and being able to access files. As a result he was not able to make presentations at the Monday afternoon meeting.

The chair recounted the activities of WRC-03 and invited others in the group that also attended to augment his presentation. Basically, the WLAN agenda item with a compromise agreement that allocates 5 GHz spectrum to Wireless Access Systems – including RLANs as a primary allocation with some restrictions such as DFS and TPC. Now the real work begins of getting national regulators to adopt those allocations and make the spectrum available within their respective countries, using a common certification process.

The chair indicated that the documents are available to RR-TAG members, by mapping a drive to \\10.0.1.18\RadioReg, in the July03 folder:

- Informal Input Docs – Data to be reviewed and commented upon
- Working Docs – In process documents
- Output documents, approved by the group, for submission to WGs then to EC

Marianna Goldhammer prior to the meeting provided: C802_18-03_xx.pdf on ET 03-122 (5GHz NPRM) and the chair asked her to present it to the group. Her comments recommended revising:

- Definition of Access Point
- Allowable power limits in the 5250-5350 and 5470-5725MHz bands
- The definition of DFS and TPC to use ETSI EN 301893v010202v as the rules

The chair and the group attempted to explain that the definition of AP, DFS, and TPC had been carefully crafted and were not subject to change and that her proposed revision of power limits would not be well accepted, in view of the strenuous compromise discussions that had occurred in the process of developing the US position for WRC-03 and during WRC-03 negotiations that had just concluded.

The Chair reviewed the input documents:

- 03-122 5 GHz NPRM
- New FCC restriction on passive scanning (TGd)
- Consultation from Sri Lanka
- 03-104_Broadband_Over_Power_Lines
- 01-185_02-364_Addtl_2.4GHz_Spectrum
- 03-137 RF Exposure NPRM

As evening homework for the group, the chair assigned:

- Review of the documents within folder 02-122 5 GHz NPRM
- Review and comment on NPRM_on_5GHz_FCC-03-110A1.doc
- Save the comments as a filename post pended with individuals initials
-

The intent being that one individual would take all comments and combine them into a single document for the group to review.

Chair calls the meeting into recess at 5:20pm until Tuesday at 8:00am

TUESDAY 22 July

Chair calls the meeting into session at 8:12 am

Several new individuals attend the session and the chair calls for introductions of all individuals and their interest areas. Two are from the National Public Radio Telecommunications Council and want to discuss the use of WLAN devices on licensed frequencies.

The chair recommended prioritization of the group's effort:

- 5GHz NPRM
- TGd
- Sri Lanka
- RF Exposure NPRM
- Additional 2.4GHz Spectrum
-

In addition the RR-TAG Policy and Procedure (Operating Rules) need to be finalized and submitted to the Executive Committee.

Motion:

To approve document 802.18-03/032r0RR-TAG_Policies_and_Procedures.doc and to authorize the chair make editorial changes, to Submit to EC for their consideration and approval at their closing plenary.

Motion: Peter Murray

Second John Ley

Discussion: none

Any objections: – motion passes by unanimous consent

The chair asked Sean O'Hara to present National Public Safety Telecommunications Council's interest in working with the RR-TAG. NPSTC has received 4950 – 4990 MHz and is interested in leveraging 802.11a products, but has problems with spectrum mask. They plan on filing a Petition for Reconsideration for mask relief by the end of the month, given a 30 day delay in publication and a comment period the RR-TAG would be able to comment during the September meeting. If the comment period were to open earlier, an e-mail discussion and vote could be used to prepare a comment. Information they supplied is available in the Public Safety folder on the server. The group will await release of the petition to decide on the appropriate course of action.

The chair initiates review of the overnight homework 5 GHz NPRM comments and proceeds to gather 'thinking out loud' comments from the group in a item by item review of the NPRM. Of concern is FCC's treatment of the additional 5GHz spectrum as a Part 15 authorization not as a Primary Spectrum Allocation, as was done for the Unlicensed PCS band. Discussion extends into the need for more than 100 MHz for backhaul high power outdoor links. Method of implementing DFS in ad-hoc (peer-peer) mode.

Following coffee break Andy Gowens offers a presentation of the UK's considerations and schedule of implementing 5GHz spectrum systems, which discusses their approach to ad-hoc networks and DFS implementation. His presentations are available to the attendees in the temporary folder UK_files.

The group resumes discussion of the Master/Slave control and DFS after the lunch break and completes review of the NPRM.

The chair asks for volunteers to do homework in the following:

- RF Exposure NPRM
- TGd
- Gather comments filed with FCC on 02-364 (Additional 2.4 GHz Spectrum)
- Review Peter Murray's comments on Sri Lanka consultation
- Review the South Africa consultation, ICASA_ISM_Discussion_Document.pdf

Chair calls the meeting into recess at 5:27 pm until Wednesday at 8:00 am

WEDNESDAY 23 July

Chair calls the meeting into session at 8:14 am

Chair indicates that Mika Kasslin, TGh chair will be meet with the group after lunch and discuss their direction on ad-hoc mode. Bob O'Hara, former chair of TGd, will meet with the group on Thursday morning to discuss TGd to provide background for our comments to the Commission in the potential transmission on un-authorized frequencies.

The chair indicates that the group will have an extended break following the morning coffee break till after lunch to allow members to attend the mid-week plenaries of WG .11 and .15.

The chair plans to work on the 5 GHz NPRM comment document and hands the meeting to Denis Kuwahara for the morning. Denis reviews the results of the homework:

Denis leads the discussion of the group on comments that were filed for 02-364 for relevance to WLAN utilizing the spectrum. Two commenters were in support of license exempt usage of the spectrum, and their comments would be useful in formulation of the group's reply comment. Most of the comments were attempting to support alternative uses of the spectrum.

Jim Raab reports that the South African consultation is concerned with hot spot licensing requirements. And, does not appear to be in conflict with currently proposed spectrum applications.

Denis calls the meeting into recess at 10:22 am until after lunch, to permit members to attend mid-week plenary sessions.

Chair calls meeting into session at 1:05 pm

Chair presents comments on ad-hoc mode operation and discusses it with the group. Consensus is that DFS is not practical in this mode, and the group has discussed alternative methods of ad-hoc mode and the chair presented comments to consider low power operation to minimize interference potential.

The chair interrupts the discussion of the 5 GHz NPRM comments following the afternoon break to allow Mika to offer is TGh expertise to our thoughts on ad-hoc mode operation. The chair presents portions of the 5 GHz NPRM comments to illustrate our thinking on ad-hoc mode. Mika agrees that the concept has merit and that the RR-TAG needs to respond to the Commission on this issue.

David Skellern offers input into the discussion of the radar detection criteria question, and the recommendation is that we define that we will be working with NTIA to define the test parameters for radar detection parameters. And, that the Commission should defer to that group to define the test criteria.

Marianna asks to read an additional two paragraph paper she has created "Response to FCC NPRM-Highpower.doc" where the first paragraph describes Point to Point and Point to Multi-Point systems and their need for additional spectrum to rebut the NPRM comment that 100 MHz is adequate for backhaul links. And, the second, proposes additional spectrum allocation in the 5.9 GHz band or for higher powers in the existing allocations. Chair has reservations with the second paragraph being out of scope as a comment to the NPRM and recommends it be offered as a stand alone petition to FCC for a new allocation. The first paragraph has possibilities of being included if the group can reach consensus on the thoughts.

Evening homework assignments:

- The chair will take the comments, incorporate them into the final reply comments, and do a format cleanup overnight.
- John Notor will take the groups comments on 02-364 (Additional 2.4 GHz Spectrum) and prepare a reply comment for the groups review.
- Jim Raab, Marianna Goldhammer, Mike Lynch to review the South African consultation and determine what the group response should be.

Dave Hytha liaison report on the Bluetooth SIG:

- The mid rate Bluetooth has problems with the occupied bandwidth method of measurement at 20 dB down, and has petitioned FCC for the measurement be made at the 12 dB down points.
- They also are working on a NPRM for partial modular approval, they expect it out in early August for comment. They are anticipating radio, software, and control certified as a product.

Comment that each of us should be approaching regulatory agencies to support WRC-03 RLAN spectrum allocation and working toward authorizations, ideally with rules and certification processes in alignment standards work.

Chair calls the meeting into recess at 5:48pm until Thursday at 8:00am

Thursday 24 July

Chair calls the meeting into session at 8:04 am

Bob O'Hara, former chair of TGD, reviews details of how clients were able determine regional operations characteristics by listening for beacon messages from APs and determining transmitter characteristics. He agreed that the IBSS mode is an issue., one answer is to limit operation to those channels that are acceptable globally.

Given that the client follows the data provided by the AP, he agreed that clients could operate in an illegal manner if the AP were miss-configured. He felt that:

- APs should be nationalized and not allow users to set country data
- Clients could do passive scanning to obtain national operating data
- IBSS mode could be limited to globally authorized channels or that client devices be nationalized

Motion:

To approve the following resolution:

Having discussed the issues surrounding recent FCC opinions regarding passive scanning techniques and arrived at consensus within the group on a philosophy to address the issues and seek clarification, authorize the chair to work with the WFA Regulatory Committee to prepare a common position and appropriate documentation with respect to clarification of issues surrounding the ability to obtain FCC certification of certain products based on the IEEE 802.11d functionality. Circulate the document to 802.18 membership for review and approval by a teleconference meeting called by the chair, to forward the approved document to the EC for the required five day pre-filing review, and to cooperate with WFA representatives in presenting the document and discussing the issues with the FCC.

Motion: Peter Murray

Second: John Notor

Discussion: none

Any objections: – motion passes by unanimous consent 9:16 am

The chair appoints Mike Lynch as liaison to TIA

Motion:

To confirm Mike Lynch as a liaison to TIA Spectrum Policy Working Group.

Motion: Denis Kuwahara

Second: John Notor

Discussion: none

Any objections: – motion passes by unanimous consent 9:27 am

The chair advises that there have been changes in the EC Policies and Procedures, and wishes to bring our Policy and Procedures document into alignment prior to it's publication.

Motion:

To authorize the chair to make any changes necessary to approved the IEEE 802.18 Policies and Procedures to bring them into alignment to recently revised LMSC rules. And to publish the revised document on the .18 website.

Motion: Denis Kuwahara

Second: Peter Murray

Discussion: none

Any objections: – motion passes by unanimous consent 9:30 am

The group reviewed the reply comments document John Notor prepared based on the previously reviewed comments that were presented on ET 02-364 (Additional 2.4 GHz Spectrum). The group agreed on the substance of the comments and recommend the chair do the editorial addition of introductory and closing data.

The group reviewed the comments prepared by Peter Murray on the Sri Lanka consultation and agreed to the substance of his presentation, and recommend that the chair do the editorial editing and inclusion of introductory and closing data.

John Ley presented his review of 03-137 RF Exposure NPRM and advises that each individual needs to do a detailed review of the document and prepare comments in the September meeting. The filing date is far enough out to allow the group to prepare timely comments at the next interim meeting.

The chair presented the reply comment document based on the groups input for 03-122 5 GHz NPRM. The group critiqued his efforts and provided change recommendations, for him to finalize document 18-03-0042-00-0000_Rep_Cmts_IB-01-185_02-364.

Andy Gowens and Mike Lynch each presented comments on the status of the interference potential from UWB, Andy's document is 18-03-0xxr0_UK_UWB_co-existence_update.ppt which reports on analysis study results of the potential interference distances between UWB and about a dozen communications systems including RLANs. Mike's is UWB Impact on 802_11 v0.2.doc where he describes the minimum separation distance required between UWB and 802.11a and 802.11b/g devices.

The chair presents his finalized version of the reply comments for Addition 2.4 GHz spectrum.

Motion:

To approve document 18-03-0042-00-0000_Rep_Cmts_IB-01-185_IB_02-364_Addtl_2.4GHz_Spectrum_r0.doc and to authorize the chair make necessary editorial and format changes, to make appropriate WG motions for approval and to Submit to SEC at their closing plenary for approval for filing with FCC.

Motion: Peter Murray

Second: Steve Rayment

Discussion: none

Any objections: – motion passes by unanimous consent 3:10 pm

The chair presents a final read-through of the 5 GHz reply comments.

Motion:

To approve document 18-03-0041-00-0000_802_Cmts_ET-03-122_d0.doc and to authorize the chair make necessary editorial and format changes, to make appropriate WG motions for approval and to Submit to EC at their closing plenary for approval for filing with FCC.

Motion: Denis Kuwahara

Second: Marianna Goldhammer

Discussion: none

Any objections: – motion passes by unanimous consent 4:04 pm

Chair reviews Sir Lanka comments document and feels that priorities preclude sending a direct response to them at this meeting. His view of both Sir Lanka and South Africa consultations suggests that the group needs to create 'standard' FAQ like document that would provide general regulatory guidelines to help regulators toward the goal of a single global standard and certification process. The chair volunteers to create a strawman document for the groups review.

Chair calls for any other business

Motion to adjourn called by: Maryann Goldhammer

Second: John Notor

Adjourned at 4:54 pm until the next scheduled face to face meeting 14-19 September in Singapore

Ten members qualified for session attendance credit, twelve others attended occasional sessions.

Meeting minutes submitted:

Denis Kuwahara

30 July 2003