



## Minutes of the SDR Forum 63<sup>rd</sup> General Meeting 15 to 17 June 2009

The 63rd General Meeting of The SDR Forum was held June 15 to 17, 2009 in Dearborn, Michigan. The meeting was held in conjunction with two workshops: a workshop entitled “Spectrum Sharing in TV Band Devices” held on 16 June and a workshop entitled “Smart Communications in Transportation Systems” held on 18 June. This document provides the minutes of the general meeting.

The drop box for the meeting can be found at:  
[http://www.sdrforum.org/pages/dearborn\\_09\\_dropbox/](http://www.sdrforum.org/pages/dearborn_09_dropbox/)

The drop box for the Spectrum Sharing workshop can be found at:  
[http://www.sdrforum.org/pages/dearborn\\_09\\_spectrum/](http://www.sdrforum.org/pages/dearborn_09_spectrum/)

The drop box for the Transportation workshop can be found at:  
[http://www.sdrforum.org/pages/dearborn\\_09\\_transport/](http://www.sdrforum.org/pages/dearborn_09_transport/)

Please send an email to [StephanieHamill@SDRForum.org](mailto:StephanieHamill@SDRForum.org) to get the drop box password.

The feedback form for the meeting can be found at:  
<http://tinyurl.com/SDRFDearborn>

The feedback form will remain open until 3 July 2009.

### **Opening Plenary: Monday 15 June 2009**

The meeting was called to order at 12:30 PM by the Chair of the SDR Forum, Dr. John Chapin. Attendance was checked with the COO and it was determined that a quorum was not present.

Dr. Chapin read the IPR and controlled information policy statements, and then initiated a review of the agenda for the 63rd General Meeting and adjustments were made based on feedback received.

As a quorum was not present, the minutes of the previous meeting were not approved, and no new business was introduced. The meeting was adjourned at 13:45.

### **Key Accomplishments in Dearborn**

The following defines the key decisions and milestones achieved in Dearborn, organized by committee. Information on specific projects in development can be found at:

<http://www.sdrforum.org/pages/aboutTheForum/currentProjects.asp>



### Markets Committee

- ***First Market Adoption Blog Approved*** – the first Market Adoption Blog, discussing the adoption of SDR technology in commercial wireless infrastructure was approved during a Joint SIG meeting on Monday, June 15th. This Blog will be posted and promoted the week of June 22<sup>nd</sup>. The topic for the second Blog was chosen (benefits and trade-offs in SDR adoption), and this topic will be discussed at a Joint SIG teleconference on July 7<sup>th</sup>.
  
- ***“Issues in the International Tactical Radio Market Domain” matured*** – The International Tactical Radio Special Interest Group discussed input contributions related to this document, and set their work plan through the September meeting. They also continued work on maturing a related white paper ***“SDR Certification and API Issues in the International Tactical Radio Market”***
  
- ***History of the Public Safety Special Interest Group reviewed*** – The history of the PS-SIG was reviewed to bring prospective members up to speed on accomplishments to date. An overview of the Chemical Plant Scenario document was also provided, and that document was matured. The PS-SIG also brainstormed a number of potential new projects to take up in the coming months:
  - Revisit SafeCom SoR for more detailed analysis than conducted for our “SDR for Public Safety” report
  - Implications of recent block D decisions. Model the commercial vs PS interersts and analyze using game theory
  - Market survey of technologies for chem plant scenario
  - Study WNAN concept for public safety- can PS radio RF requirements be relaxed using cognitive radio concepts (eg, interference mitigation to alleviate adj chan rejection requirements)
  - Study of Dynamic Spectral Analysis applicability for PS
  - Expand requirements flowdown for Interference Mitigation Use Case from Chemical Plant Scenario report, and potentially other documented PSSIG use cases
  - Study of benefits, tradeoffs, and requirements for location awareness for public safety. Survey and evaluation of existing technology/applications and recommend future capabilities
  - Study of more cellular-like base stations and topology
  - Third CR Case Study
  
- ***“Overview of Information Processing Architecture (IPA)” and “IPA Study Plan” presented*** – This presentation was made by Jim Rodenkirch, representing Diversified Technologies, Inc., to the Public Safety Special Interest Group and provided an overview of the IPA modeling methodology and proposed a new project which will focus on selected use cases from the Chemical Plant Scenario to mature the modeling concepts. Work began on a project proposal to be approved by the PAC in advance of the September meeting.



- ***Two new projects discussed by the SATCOM SIG:***
  - A market study evaluating market trends and directions as they relate to users of Satellite communications, illustrating areas where current SATCOM systems fail to meet user needs and expectations, identifying user expectations for advanced SATCOM systems, and identifying market needs that can be uniquely addressed by employment (use) of SDR and CR technology.
  - A white paper evaluating the use of SDR and CR technology in WiMax terminals, allowing them to sense and avoid spectral interference with SATCOM terminals and base station, facilitating shared use of C-Band spectrum in a non-interference basis. A joint meeting was held with the Cognitive Radio Working Group to discuss collaboration on this issue.

The SATCOM SIG also moved forward their plans for a workshop at SDR 09, to include a half day tutorial followed by a full day session focused on SATCOM SDR and CR related topics.

- ***Overview of the Government Reference Architecture (GRA) Program presented*** – this presentation was made by Tom Rittenbach and Kuan Collins, representing the PM WIN-T and was supported by Vince Kovarik, representing Harris, and Mark Scoville, representing L-3 Communications. The presentation reviewed the status of the GRA program and discussed possible areas of joint interest and support between the GRA program and the SDRF SATCOM-SIG.

### **Regulatory Committee**

The Regulatory Committee met jointly with the Technical Committee, the PS-SIG and the SATCOM SIG to discuss issues and concerns. Based on these meetings, the Regulatory Committee plans to follow up in 3 key areas:

- Public Safety SIG – Guidance on “Regulatory Implications” Sections in Chemical Plant Cognitive Use Cases; tee-up questions for SDR ‘09 panel
- Cognitive Radio Work Group – Review new draft of ITU-R WP5A Report; Joint Telecon to assess next steps
- SATCOM SIG – track FCC ITU-R proceedings with respect to fixed/satellite sharing and collect contacts for potential coalition

The Regulatory also reviewed the pending “Regulatory Recommendation on Technical and Service Flexibility” to prepare for plenary ballot. During this review, it was agreed that the committee would add a cognitive pilot channel example and inflexible policy discussion. They also continued development of the SDR ‘09 Regulatory Workshop Agenda/Panels, and began putting together a list of speaker invites. Finally, they began to discuss developing an RFP for outside regulatory counsel.



### Technical Committee

- ***Market report entitled “Quantifying the Benefits of Cognitive Radio” was matured*** – This report is being developed by the Cognitive Radio Work Group for the world wide telecommunications and spectrum community who need to understand the benefits of using cognitive radio technologies in next generation wireless systems. The report will act as a contribution to the ITU-R and lays the groundwork for regulatory organizations to understand the benefits and system design choices associated with cognitive radio technologies.
- ***Report on Programmable Baseband Processing Technologies matured*** – the Commercial Baseband Processing Technologies task group began finalizing this document for group ballot. They also began discussing potential next steps, including:
  - Defining a business case for open source commercial waveform development
  - Defining a standard “Hardware Abstraction Layer” allowing execution on any baseband processing hardware.
- ***Modeling language for Mobility Work Group continued to mature their ontology specification*** – This includes selecting the FM3TR waveform as a test case for the ontology
- ***SCA Test and Evaluation Task Group to initiate new project to create a certification requirements guide*** – This guide will be developed for procurement authorities, radios manufacturers, radio components and tools suppliers who need to minimize time and cost of the SCA certification process to address specific applications or domains and will group the SCA 2.2.2 requirements along profile will allow the customer/market to tailor the certification to meet specific needs of applications or domains. The inaugural meeting for this new project will be held during the 64th General Meeting of the SDR Forum in San Jose, California.
- ***Additional Ambiguities in SCA version 2.2.2 identified*** – The SCA Interpretation Guide task group reached consensus on a number of ambiguities identified in the SCA. They posted solutions to these ambiguities as identified and then began evaluating new ambiguities. The goal of this group is to ballot and approve their results to date by the end of this calendar year.
- ***Security Services Requirements Document Matured by the Security Work Group***
- ***Joint meeting of the Secondary Spectrum Access Test Group, the Test and Measurement Work Group, and the Cognitive Radio Workgroup held*** – during this joint meeting a list of CR functions with test considerations was discussed, along with stake holders and sources of requirements. A discussion was also held on the definition of CR and how that was different from DSA and Smart Radio. Finally, current project definitions were reviewed and alignment between the groups was discussed. It was agreed that a revised project proposal would need to be introduced by the Test and Measurement Work Group with a focus on



Spectrum Sensing, and the Secondary Spectrum Access test group agreed to meet separately to decide whether to join with the T&M group, finalize their existing project, or disband.

- **Work begun on Version 2 of the SDR Forum Transceiver Facility Specification**
  - The Transceiver Facility Specification Task Group continued work on their project proposal for the next revision of their specification. The group also met jointly with the Test and Measurement Work Group to discuss the requirements for compliance testing, the SCA Work Group to discuss an SCA version of the specification, and the Smart Antenna Workgroup to discuss potential overlaps with the Smart Antenna Specification. During this latter meeting, the following items were discussed:
    - **RF Control** - It was agreed that there is clear overlap in this area. The Transceiver Facility Specification Group proposed that the OMG RF/IF facilities referenced by the Smart Antenna Specification are insufficient for general use, and so it was suggested that the Smart Antenna Specification should be revised to utilize the SDR Forum Transceiver Facility Specification instead of the OMG RF/IF facilities. The SDR Forum could provide the Transceiver Facility Specification as an input reference to the OMG as a part of a revision activity for the SWRadio Spec at a later date.
    - **Synchronization Control** – It was agreed that Synchronization Component in the Smart Antenna Specification does not overlap with the Transceiver Facility Specification, so no action is required at this time. It was further agreed that the Calibration Component may overlap moving forward, and that the Transceiver Facility Specification Task Group should ensure that the two specifications are compatible in this area as it evolves.
    - **SAAlgorithm and Algorithm Control** – It was agreed that there is no overlap in these areas and so no action is required at this time.

The group also discussed having a number of interim working meetings to more quickly mature their product. The initial interim meeting was tentatively scheduled for 20 July 2009 to be hosted by Thales in Paris.

### **Open Plenary Session – 17 June 2009**

An open plenary was held where Regional reports were presented from representatives from ITU regions 1, 2, and 3 as well as liaison reports on relevant activities from representatives of IEEE SCC41, ETSI and the E3 Program. A member opportunities briefing was also provided by Lee Pucker, CEO of the SDR Forum. The session also included a keynote presentation from Dr. Ruediger Leschhorn, Representing Rohde & Schwarz entitled “*Smart-RF” Compensation of Imperfect Analogue RF-Frontend Characteristics by Digital Means in a SDR*”.



**Closing Plenary –17 June 2009 (Members Only)**

The meeting was recalled to order at 15:30 hours by Dr. John Chapin. Attendance was checked with the COO and it was determined that a quorum was not present.

*Hands on group portal training* – Training was provided by Mr. Al Margulies on The SDR Forum’s group portal. Additional training will be provided at each general meeting.

*Out Briefs* – Out briefs were given on the outcomes of the Dearborn meeting by the chairs of the Markets, Regulatory and Technical Committee.

*Close of the 63rd General Meeting* – Dr. Chapin closed the meeting at 16:30 hours.