Minutes of the 72nd General Meeting of the Wireless Innovation Forum
25 to 27 June, 2012

The 72nd General Meeting of The Wireless Innovation Forum (SDR Forum version 2.0) was held June 25 to 27, 2012 in Brussels, Belgium. This document provides the minutes of that meeting.

The agenda for this meeting can be found at:
http://groups.winnforum.org/72nd_WM_Agenda

The drop box for this meeting can be found at:
http://groups.winnforum.org/p/do/si/topic=544

The drop box is accessible to Forum members only.

The feedback form for this meeting can be found at (feedback is still welcome):
http://www.zoomerang.com/Survey/WEB22G3HCA6TAA

Opening Plenary: Monday, 25 June 2012

The meeting was called to order at 12:15 PM by the Chair of the Forum, Mr. Bruce Oberlies. Meeting announcements were made, and then 3 documents were introduced to be balloted at the Forum level at the Closing plenary:

- WINNF-10-P-0012-V0.6.0 SCA Test, Evaluation and Certification Model Realization
- WINNF-12-P-0003-V0.6.0 TD-LTE in White Space
- WINNF-09-P-0021-V0.6.0 Information Process Architecture Volume 2: Survey of IPA-like Systems

Following this, the agenda for the 72nd General Meeting was reviewed and adjustments were made based on feedback received. Mr. Oberlies then recessed the Plenary until Wednesday at 10:30 AM. The meeting was adjourned at 13:00.

Key Accomplishments in Brussels

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

http://www.wirelessinnovation.org/page/Current_Projects

User Requirements Committee (URC) Meeting Minutes

- ***Report on "Business Models of the SDR Tactical Radio Market" matured*** – the ITR-SIG, Chaired by Mr. David Renaudeau, representing Thales, continued developing their report exploring "Business Models of the International Tactical Radio Market". The group plans to complete work on this project by the next General Meeting.

- ***Report on a "Hybrid SATCOM Reference Architecture for Public Safety Applications" matured*** – The Hybrid SATCOM Reference Architecture task group, chaired by Daniel Devasirvatham representing SAIC, continued developing their document defining concepts and proposing a reference architecture to enable phased and concurrent operation of satellite, airborne and terrestrial, narrowband and broadband systems for public safety emergency, and non-emergency communications. The group plans to complete work on this project by the next General Meeting.

Technical Committee on Software Defined Radio (TC-SDR) Meeting Minutes

- ***Communications Systems Modeling Work Group formed*** – The Communications Systems Modeling Work Group, chaired by Tom Rittenbach representing CERDEC, held a formation meeting to establish their work plan, policies and procedures. During this meeting, a new project was started to develop an "Integrated Communications Systems Model" specification. Vince Kovarik, presenting PrismTech and Kuan Collins, representing SAIC, will act as project leads and will work to complete a first draft by the next General Meeting. The group also met jointly with the Transceiver Facility Specification Work Group to discuss synergies between their respective projects.

- ***"Fast Prototyping with the WInnF Transceiver Facility" project matured*** – The Transceiver Facility Specification Work Group, Chaired by Eric Nicollet representing Thales, presented early achievements in the USRP2 façade development and discussed next steps. Plans include an upload of the façade source code and conducting an early definition of the desired configuration profiles. The group also met jointly with the Communications Systems Modeling Work Group to discuss synergies between their respective projects.

- ***Security Work Group projects reviewed*** – William Scott, representing GD C4S, led a special session of the Security Work Group to review the "Security Requirements for Software Reconfigurable Communications Devices" project and the "International Radio Security Services (IRSS) API" specification. During this review, the group announced their intention to reopen the IRSS-API document for revision, and to complete the Security Requirements document by March 2013.

- ***"Open Source Framework for Commercial Baseband Software" matured*** - the Commercial Baseband Processing Work Group, Chaired by Mr. Daniel Iancu

representing Optimum Semiconductor Technologies, continued coding of LTE blocks as required for their project. The group also hosted tutorial sessions on the tools they are employing, including Mathematica and GIT.

Technical Committee on Cognitive Radio and Dynamic Spectrum Access (TC-CR/DSA) Meeting Minutes

- *Committee Plenary Held* - The TC-CR/DSA, chaired by James Neel, representing Cognitive Radio Technologies, held a plenary session where they reviewed the project interests expressed by member organizations, and roadmap items including sharing with multiple dynamic primary users. New project ideas explored by the committee included:

    o Impact of receiver standards on DSA/CR performance

    o CR for baseband

    o Secondary user coexistence mechanisms

- "*Information Processing Architecture (IPA)" Part 2 reviewed* – The Cognitive Radio Work Group, Chaired by James Neel representing Cognitive Radio Technologies Inc., provided an overview of the key results captured in this document and then introduced a related paper discussing "Context Modeling and Reasoning Techniques" to explore implications for Cognitive Radio applications.

Coordinating Committee on International SCA Standards Meeting Minutes

- *New projects explored by the SCA Next Work Group* - The SCA Next Work Group, chaired by Terry Anderson, representing ITT Exelis, reviewed the status of the newly approved project on "Zero Copy Data Transfer", and tasked OIS to provide input on which CORBA enhancement is most desired and what changes to code or IDL could be tolerated. The group also explores two new project concepts:
    o Alternate IOP (not GIOP)
    o Embedded Middleware

    The group also discussed roadmap needs including:
    o Writing waveforms in a modeling language for more portability
    o Network management for combat net mesh networks
    o High performance/wide bandwidth for the SCA

- *"API Requirements Specification" and "Audio Device API Enhancements" projects reviewed by the SCA API Work Group* - The SCA API Work Group, chaired by Terry Anderson, representing ITT Exelis, reviewed the status of these two projects and explored areas that need to be addressed in the current Audio API. The group also discussed roadmap needs including:

- o Getting more info on the OMG and early SCA work on API semantics in UML, Seq Diag., etc.
- o Defining how to more clearly indicate client vs. server side of API
- o Defining how to include stream or buss-oriented interfaces in APIs
- o Establishing priority between broadening domain of application of current APIs vs. completeness/reducing ambiguity.

- *Potential new projects identified by SCA Implementers Work Group* - The SCA Implementers Work Group, chaired by Alberto Quintana representing Indra, provided an introduction to new members and then explored 3 potential new projects:

  - o Implementers/Users Guide – discussions focused on clarifying the process to provide feedback to the current SCA specification.
  - o Waveform Application Portability Guidelines – updated project proposal to be circulated by mid-July with proposal to be completed in time for a project approval committee meeting scheduled for 4 September
  - o SCA 4.0 Profiling – a request was launched to identify a champion for this project

- *New projects explored for the SCA Test and Evaluation work group* - The SCA Test and Evaluation Work Group, led by Randy Navarro representing SAIC, presented an overview of the "SCA Test, Evaluation and Certification Model Realization" document and began to brainstorm on potential follow on projects, including:
  - o Compiling a WInnF Project Proposal for a Test Lab
  - o Completing additional personas

Roadmap Committee

- *Potential changes to the "Top 10 Most Wanted Wireless Innovations" list explored* - John Glossner of Optimum Semiconductor Technologies presented a revision to the existing Top 10 list based on feedback from the various workgroups:

  - o **#1:** Techniques for Efficient Software Porting Between Embedded Heterogeneous Platforms *and Generic Development Tools for Heterogeneous Processors*
  - o **#2:** Cost Effective Testing Mobile ad hoc and Cognitive Radios
  - o **#3:** Certification Process for Third Party Waveform Software
  - o **#4:** Low Cost Wide Spectral Range RF Front-End (Multi-octave Contiguous) (Tx,Rx)
  - o **#5:** Techniques to Minimize Power Amplifier Spectral Regrowth in Non-contiguous Spectral Environment
  - o **#6:** Regulator loading policies into cognitive radios
  - o **#7** Increase Communications Time on Battery Charge by an Order of Magnitude
  - o **#8:** Means of Coverage Extension - Maintaining Communications in Emergencies and After Disasters

- o **#9:** Interference Mitigation Techniques
- o **#10:** Flexible Regulatory Framework for Temporary, Cooperative and
  Opportunistic Access

These changes will be incorporated into the existing roadmap document to be balloted at the next General Meeting. A watch list was also established for other potential roadmap topics. In addition, Dr. Glossner announced that Kuan Collins, representing SAIC, had agreed to be the Roadmap Committee Vice Chair.

Closing Plenary – Wednesday, 27June 2012

The meeting was recalled to order at 10:30 hours by Mr. Bruce Oberlies. A check of the role and received proxies indicated that a quorum was present.

Approval of the previous meeting minutes – Eric Christensen, representing GD-C4S moved to waive reading and approve the minutes of the 70th and 71st General Meetings. Kuan Collins seconded. Hearing no discussion, Mr. Oberlies called the question, and the motion was approved with Kolodzy Consulting, NEC and Viasat abstaining via proxy.

Document Ballots – Mr. Oberlies presented the following documents for ballot:
- WINNF-10-P-0012-V0.6.0 SCA Test, Evaluation and Certification Model Realization – Ruediger Leschhorn representing Rohde & Schwarz moved to approve this document and Eric Christensen representing GD-C4S seconded. Hearing no discussion, Mr. Oberlies called the question, and the Motion was approved with Kolodzy Consulting and NEC abstaining via proxy.
- WINNF-12-P-0003-V0.6.0 TD-LTE in White Space – Manuel Uhm representing Coherent Logix moved to approve this document and R Muralidharan representing Tata Power SED seconded. Hearing no discussion, Mr. Oberlies called the question, and the Motion was approved with CRC, Raytheon and Reservoir Labs abstaining via proxy.
- WINNF-09-P-0021-V0.6.0 Information Process Architecture Volume 2: Survey of IPA-like Systems – Vince Kovarik representing PrismTech moved to approve this document, and Kuan Collins representing SAIC seconded. Hearing no discussion, Mr. Oberlies called the question, and the Motion was approved with NEC, Raytheon and Reservoir Labs abstaining.

Regional Reports – A report on activities in ITU Region 1 was presented by Mr. David Renaudeau, representing Thales. Mr. Terry Anderson, representing ITT Exelis presented the ITU Region 2 report. Mr. Oberlies presented the ITU Region 3 Report on behalf of Ms. Boya Lu, representing Huawei.

PSCE Liaison Reports – Mr. Oberlies presented the results of a meeting held between PSCA and the Wireless Innovation Forum. Participants in this meeting included:

- Marie-Christine Bonnamour, Secretary General PSC Europe
- Helmut Schwabach, PSCE President, Board member, Chair of the Research Committee, AIT, Austria

- Jeppe Jepsen, Vice-Chair of the Industry Committee, Motorola Solutions, Belgium
- Lee Pucker, CEO Wireless Innovation Forum
- Bruce Oberlies, Motorola Solutions and President of the Forum
- John Glossner, Optimum Semiconductor and Technical Director of the Forum
- Manuel Uhm, Coherent Logix and Chair of our User Requirements Committee
- Daniel Devasirvatham, SAIC and Chair Satcom SIG

Both organizations presented an overview of projects and interests. At the conclusion of the meeting, the two groups agreed to an exchange of documents and remain in contact but to not formalize the relationship further at this time.

Committee Out Briefs – Out briefs were given on the outcomes of the San Diego meeting by the chairs of the Committee on SDR, the Committee on CR/DSA, the Coordinating Committee on International SCA Standards, the Roadmap Committee, the User Requirements Committee, and the Roadmap Committee.

FY2013 Operations Plan presented – Mr. Lee Pucker, CEO of the Wireless Innovation Forum, presented the proposed operations plan for the year beginning 1 July 2012 and indicated that this would be sent to members shortly for budget approval.

Member Opportunities Presented – Mr. Pucker, presented member opportunities for the next quarter.

Close of the 71st General Meeting – Mr. Oberlies called for any other business. Hearing none, he asked for a motion to adjourn. Kuan Collins, representing SAIC, so moved, and James Neel, representing Cognitive Radio Technologies seconded. The meeting adjourned at 11:55.