OMG's Third
Software-Based Communications (SBC) Workshop:
Realizing the Vision
Fairfax, VA USA – March 5-8, 2007

Workshop CD Index

00-01 Workshop CD Index
00-02 Workshop Program Summary
00-02 Complete Workshop Program with Descriptions
00-04 Workshop Demonstration Listing

MONDAY – March 5, 2007  -  Tutorials

00-T1 An Introduction to the OMG Systems Modeling Language (OMG SysML™)
Sanford Friedenthal, Principal Systems Engineer, Lockheed Martin

00-T2 OMG Software Radio Specifications
Gerald Lee Bickle, Chief Scientist-SDR Products, PrismTech

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TUESDAY – March 6, 2007

00-K1 Keynote Presentation
Robert Spearing, Deputy Administrator for Space Communications and Navigation, NASA

Session 1: Analysis and Design of Space Systems
Chair: Roy Bell, Staff Software Engineer, Raytheon

01-1 PIM/PSM For Space SDR RFP
Mark Scoville, Software Architect, L-3 Communications

01-2 Applying MDA to SDR for Space to Model Real-time Issues
Tammy M. Blaser, Sr. Computer Engineer, NASA John H. Glenn Research Center

00-P1 Sponsor Presentation - Boeing
Session 2: Security-Aware SBC
Chair: Kevin Richardson, Software Systems Engineer, The MITRE Corporation

02-1 A Threat Model for Software Reconfigurable Communications Systems
Bernard C. Eydt, Associate, Booz Allen Hamilton

02-2 Modeling and Implementation of Inter-Component Security for Effective Security Policy Enforcement and Channel/Process Separation
Sebastian Staamann, Director for Security Products and Solutions, PrismTech

Session 3: Tool Support for SBC Software Development
Chair: Piya Bhaskar, Systems Engineer, Lockheed Martin

03-1 The Future of Software Radio MDD Tools
Dominick Paniscotti, VP & GM- Fred Humcke, Director of Hardware, SDR Products, PrismTech

03-2 Integrating SBC Tools
John Hogg, CTO, Zeligsoft

03-3 Efficient Hardware in the Loop Functional Verification Methodology for SDR’s
Pascal Giard, J.F. Boland, Assistant Professor, J. Belzile, Professor, École de Technologie Supérieure

WEDNESDAY, March 7, 2007

00-K2 Keynote - Future Mobile Devices Based on Software Based Platform
Soon Joon Park, Chief Research Engineer, LG Electronics

Session 4: Evolving Standards Realizing the Extended, Higher Performance, Lower Cost SDR Vision
Chair: Fred Waskiewicz, Director of Standards, Object Management Group

04-1 CORBA/e - New CORBA Profiles for SDR
Victor Giddings, Senior Scientist, Objective Interface Systems

04-2 Evolution And Standardization Of the SCA
Gerald Lee Bickle, Chief Scientist-SDR Products, PrismTech

04-3 A Framework For SDR Commercial Equipment: THE Reconfigurable Equipment PIM (REP)
Eric Nicollet, Embedded Software Architect, THALES Communications

00-P2 Sponsor Presentation - PrismTech

Session 5: New Directions for SBC
Chair: Victor Giddings, Senior Scientist, Objective Interface Systems

05-1 Next Generation SCA Operating Environments
Gerald Lee Bickle, Chief Scientist-SDR Products, PrismTech

05-2 Making FPGAs "First Class" SCA Citizens
Fred Humcke, Hardware Director-SDR Products, PrismTech Corp.

05-3 A PIM for Autonomously Reconfigurable User Equipment and Network Elements
Zachos Boufdis, Nancy Alomistiotti, Eleni Patouni, Makis Stamatelatos, University of Athens
Markus Muck and Didier Bourse, Motorola Labs
THURSDAY, March 8, 2007

Session 6: Integration
Chair: John Hogg, CTO, Zeligsoft

06-1 The Software-Defined Radio & Cognitive Radio Inter-Consortia Affiliation
Mark Scoville, Software Architect, L-3 Communications

06-2 Digital IF Revised Submission: A Concrete Example of Collaboration between an Industrial Forum and a Standardization Body
Eric Niclotlet, Embedded Software Architect, THALES Communications

Session 7: Developing Communication Systems Using MDA
Chair: Piya Bhaskar, Systems Engineer, Lockheed Martin

07-1 Delivering Optimized Portable SBC Software
John Hogg, CTO, Zeligsoft

07-2 A Methodology for Coherent Functional Description & Hardware Abstraction in RF Front Ends
Sabeur Lafi, A. B. Kouki & J. Belzile, Ecole de Technologie Superieure
A. Ghazel, Ecole Superieure de Communication de Tunis

07-3 Considerations of the Waveform/Platform Boundary in the HC3 Architecture
Jerry Kazin, Senior Principle Software Engineer, David Hendry, Engineering Fellow, George Vachula, Engineering Fellow, Paulo Barroso, Senior Systems Engineer, Raytheon-Network Centric Systems

Session 8: Case Studies for The Software Defined Radio
Chair: Mark Scoville, Software Architect, L-3 Communications

08-1 Implementation of WIBRO Smart Antenna Base Station System With Open Architecture for SDR Functionality
Taeyoul Oh, Namkyu Ryu, Yusuk Yun and Seungwon Choi, Hanyang University
Jinsung Choi, Mobile Communication Tech Research Lab., CTO, LG Electronics

08-2 Software Defined Radio on Small Form Factor Systems
Philip Balister, Tom Tsou, Graduate Research Assistants, Virginia Tech
Jeffrey H. Reed, Director of Wireless@Virginia Tech

08-3 Software Radio Cooperative Research Program (SRCRP)
Jimmie Marks & Roy Bell, Staff Software Engineers, Raytheon