

**New Security Services Specifications for Software Radio and Report on Cognitive Radio in Public Safety Released by WInnForum Members at SDR WInnComm Europe 2013**

**For Immediate Release**

**Washington, DC, 20 June 2013** – [The Wireless Innovation Forum](http://www.WirelessInnovation.org) ([www.WirelessInnovation.org](http://www.WirelessInnovation.org)), a non-profit international industry association dedicated to driving the future of radio communications and systems worldwide, announced today the final ballot and member approval of three new documents “Assessment of Cognitive Radio Technologies for Public Safety” (WINNF-13-P-0003-1.0.0); “International Tactical Radio Security Services API” (WINNF-09-S-0011-V2.0.0); and “IRSS API Functional Requirements Analysis and Specification” (WINNF-13-S-0004-V1.0.0).

“These documents represent important contributions by the members of the Wireless Innovation Forum to the advanced wireless community”, said Lee Pucker, CEO of the Wireless innovation Forum. “Through these documents, the Forum’s members help to define research agendas for cognitive radio technologies worldwide, and provide a basis for expanding the growing ecosystems of SDR technology providers in commercial, civil and defense communications.”

Created by the Forum’s Spectrum Innovation Committee, “**Assessment of Cognitive Radio Technologies for Public Safety**” (http://groups.winnforum.org/d/do/6705) aims to:

1. Define a set of desirable functional capabilities for public safety communications systems that leverage evolving cognitive radio technology;
2. Survey cognitive radio technology research activities, to identify projects that might facilitate the deployment of desirable capabilities; and
3. Identify research gaps as input to a broad research, development and implementation agenda for consideration by government, academic, and commercial researchers.

From the results of the survey and analysis, the committee has identified significant ongoing research in Cognitive Radio technologies that can be leveraged to benefit public safety. Software defined radio and cognitive radio technologies have potential to provide important capabilities for public safety communications networks, including enhanced interoperability, coverage improvement, interference mitigation, dynamic spectrum access, more effective management of communications resources, and the ability to configure to meet incident command requirements. The report also additional work will be required to adapt technology developments to meet specific public safety needs. One area in which there is no significant research is the ability to configure to meet incident command requirements, as this is unique to public safety.

“This document is an important step for the Forum, building on previous work in defining use cases for cognitive radio in public safety communications systems,” said project lead Fred Frantz, of Engility (NYSE: EGL). “This report summarizes where research investments are being made and where there are gaps, and provides insight on where the Forum can focus attention to fill those gaps going forward.”

“**International Radio Security Services API**” (http://groups.winnforum.org/d/do/6706), created by the Forum’s International Radio Security Services Work Group of the Coordinating Committee on International SCA Standards is a specification that standardizes a software security interface for use by the international radio community. In particular, this API is targeted for deployment in radio systems based on the Software Communication Architecture (SCA), though that is not necessarily a prerequisite for its use.

The IRSS API consists of several API service groups, as follows:

* The *control service group* details interfaces used to establish, configure, and otherwise manage channels for services provided by this API.
* The *Infosec service group* details interfaces for usage of cryptographic channels and TRANSEC channels. Cryptographic channels are used for transformation *(i.e. encryption/decrypt*ion) of user information between security domains or within a single security domain. TRANSEC channels are typically used to protect the protocol used for transmissions (compared with the traffic payload itself).
* The *bypass service group* details interfaces for usage of bypass channels used to transfer waveform control information between security domains without encryption.
* The *integrity and authentication service group* details interfaces for features such as generating hashes, generating message authentication codes (MACs), generating and verifying digital signatures, and generating random numbers.
* The *protocol service group* details interfaces that allow waveforms to interact with Cryptographic Applications (CAs), using a generic protocol to perform CA-specific functions. This allows specialized protocols or functions not addressed by the other IRSS APIs to be performed, such as asymmetric key negotiation, etc.

“**IRSS API Functional Requirements Analysis and Specification**” (http://groups.winnforum.org/d/do/6707), also created by the Forum’s International Radio Security Services Work Group, is an analysis of several radio waveform classes regarding the nature and types of security services needed to support waveform operational requirements across a broad spectrum of Radio Security Services. These are then analyzed and developed into a set of example radio platform and waveform API use cases for radio security services. Based on these analyses a set of API functional requirements applicable to the waveform/platform Radio Security Service API are presented. The document develops and provides a functional requirements specification that can be applied to the development of an Application Programming Interface (API) for Radio Security Services (RSS) for use in radios in the international marketplace. These include commercial , public safety and government radio applications as well as military tactical radio applications, the latter three of which are perhaps the most demanding from a security perspective and consequently are the primary sources for the document.

"Securing our wireless communications across the full spectrum of commercial, public safety, government  and  tactical radio applications is paramount. These specifications provide a basis for a common globally applicable API, fostering waveform portability across diverse radio platforms while enabling the protection of assets for an entire community of interest." said John Fitton, Harris Corporation (NYSE: HRS) Senior Scientist and task leader for the functional requirements analysis and specification effort.

Wireless Innovation Forum member representatives have initiated and led multiple work efforts that promote their organization’s specific objectives through the creation of reports, recommendations and specifications that are widely used by industrial partners, academic institutions and government agencies worldwide. The importance of the resulting 70+ "work products" is reflected in the fact that they were downloaded more than **12,000 times in 2012 alone**. The Forum encourages participation from organizations wanting to be involved in its active projects. Please contact Forum CEO Lee Pucker at [**Lee.Pucker@WirelessInnovation.org**](mailto:Lee.Pucker@WirelessInnovation.org) if you are interested and visit <http://www.WirelessInnovation.org> to learn more about our member’s activities.

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**About the Wireless Innovation Forum**

Established in 1996, The Wireless Innovation Forum (SDR Forum Version 2.0) is a non-profit mutual benefit corporation dedicated to driving technology innovation in commercial, civil, and defense communications worldwide. Members bring a broad base of experience in Software Defined Radio (SDR), Cognitive Radio(CR) and Dynamic Spectrum Access (DSA) technologies in diverse markets and at all levels of the [wireless value chain](http://www.wirelessinnovation.org/page/Product_Services_Directory) to address emerging wireless communications requirements. To learn more about The Wireless Innovation Forum, its meetings and [membership benefits](http://sdrforum.org/pages/aboutTheForum/membership.asp), visit [www.WirelessInnovation.org](http://www.WirelessInnovation.org).

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