



FY2018 Operations Plan

Version 1.0.0

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1 Introduction – The Wireless Innovation Forum FY2018 Objectives

The Wireless Innovation Forum (WInnForum) Board of Directors has established the following seven items as high level objectives for the Forum for the period from July 1, 2017 through June 30, 2018 (hereafter FY2018) in executing on the WInnForum’s Strategic Plan:

1. Brand the WInnForum as the Preferred Venue for the International Spectrum Sharing Community

The WInnForum will work to build on its success in forming the Spectrum Sharing Committee (SSC), and strengthen that community to ensure continued success. In addition, the WInnForum will undertake the following:

- a. Broaden focus of standards, processes and regulatory frameworks developed for Part 96 to other frequency bands than 3.55 GHz.
- b. Leveraging the experience in the Citizens Broadband Radio Service (CBRS, FCC Part 96), brand the Forum as the venue where licensed and unlicensed communities come together to figure out how to share spectrum.

2. Identify New Market Area Relevant to the Forum’s Mission

The WInnForum’s Advanced Technology Committee (ATC) will act as an incubator for exploring potential new markets relevant to the Forum’s mission. In FY2018, the ATC will execute on the “platform strategy” defined in FY2016 which will guide the identification of new project/market areas. The ATC will work with the WInnForum’s members to select and develop at least one new market area. The committee will work on advancing and formalizing partnerships and end user community in existing and new market areas.

3. Execute on the Strategic Plan of the Coordinating Committee on International SCA Standards (CCSCA)

The WInnForum will focus on international harmonization of extensions to the SCA and associated API’s as developed within the US JTNC and programs such as ESSOR and SVFuA in Europe, tactical radio interoperability and acceptance of the SCA 4.1. Specific goals to accomplish this include:

- Maintain its position as the international venue for SCA standards development and harmonization through the execution of projects focused on harmonizing the SCA extensions and related APIs
- Establish itself as a venue that industry can contribute to the international discussion on coalition operations with organizations such as NATO.

- Rebrand the committee to promote usage of SDR technologies beyond the SCA within the military wireless communications domain.

Projects, relationships with key international programs and independent positioning will showcase the WInnForum as the leading organization to influence and direct the development of interoperable solutions based on industry developed open standards, providing the incentive to attract new members.

4. **Execute on Test and Certification Strategies for WInnForum Standards**

In FY2017, both the CC SCA and SSC identified mechanisms to support industry through WInnForum accreditation services targeted at their respective domains. In FY2018 these WInnForum Commercialization Committees shall work towards execution of these strategies.

5. **Establish Relevant Projects**

The Forum's Advanced Technologies Committee, Coordinating Committee on International SCA Standards and Spectrum Sharing Committee will form both member driven projects addressing immediate needs and roadmap driven projects advancing supporting the Forum's Advocacy Agenda or Top 10 Most Wanted Wireless Innovations list:

- The Forum's Coordinating Committee on International SCA Standards shall publish and maintain its own roadmap as defined in the Committee Charter¹, and initiate projects developing extensions to the SCA standards that address any gaps between the defined SCA evolution roadmap and Forum accepted SCA specification variants.
- The Forum's Spectrum Sharing Committee shall publish and maintain its own roadmap as defined in the Committee Charter², and initiate projects supporting that charter focused on the development and advancement of spectrum sharing technologies required for interoperable systems in applicable bands of interest worldwide.
- Items on these roadmaps requiring investment in significant technical, business or regulatory innovation shall be added to a Forum wide "watch list". This "watch list" will be periodically reviewed by the Advanced Technologies Committee Steering Group to determine if items on the list should be promoted to the Forum's "Top 10 Most Wanted Wireless Innovations". A project of the Advanced Technologies Committee will be to publish a revision of the "Top 10 Most Wanted Wireless Innovations" list in FY2017.

¹

<https://sdf.memberclicks.net/assets/documents/cc%20sca%20charter%20v3%200%200%20-%202023%20october%202012.pdf>

² <http://groups.winnforum.org/d/do/7958>

- The WinnForum's Advanced Technologies Committee will also maintain and advance the Advocacy Agenda as required and shall coordinate activities with regulatory agencies and standards bodies to advance the Advocacy Agenda.

The success of this goal will be measured by evaluating the level of member participation in each project.

6. **Improve Regional Support**

The Forum will continue to grow participation in its India Regional Committee with a on popularizing SCA 4.x and looking for opportunities to establish testing and validation centers for SCA.

7. **Evaluate and Revise the Strategic Plan**

The current WinnForum strategic plan was developed in FY2012 to cover calendar years 2013 to 2017. Execution on that strategy has resulted in the formation of the Spectrum Sharing Committee and an associated shift in the Forum's membership. In FY2018, the Board will undertake to revise the strategic plan to recognize these changes and plot the next evolution of the organization.

This document presents specific plans for achieving these high-level objectives in separate sections dedicated to the FY2018 Meeting Plan, and the respective work plans of the Advanced Technologies Committee, the Coordinating Committee on International SCA Standards, the Spectrum Sharing Committee, the Board of Directors, and the Forum's Corporate Administration. The budget necessary to support these objectives is also addressed in the last section of this document.

2 Wireless Innovation Forum Organizational Overview

The FY2018 Organizational Structure of the Wireless Innovation Forum is presented in Figure 1. The Forum is organized around three standing committees, whose responsibilities are summarized as follows:

- The role of the Advanced Technologies Committee (ATC) is to advocate for the innovative utilization of spectrum, and advancing radio technologies that support essential or critical communications:
 - Works with wireless end users and their representatives, including network operators, government acquisition authorities and research sponsors to validate concepts and requirements against technology readiness, to document domain specific requirements, use cases and business models.
 - Supports member organizations in identifying new opportunities for next generation products and services in each defined market domain.
 - Works with the regulatory and public policy community to establish a global regulatory framework promoting the adoption of emerging technologies for advanced wireless systems.
 - Provides a venue for the exchange of information on emerging radio technologies important in wireless networking and produces reports, specifications and recommendations supporting the development and deployment of advanced wireless system and next generation radio devices

Management and oversight of this committee is provided by a Steering Group working in collaboration with a [Regulatory Advisory Committee](#). The Steering Group is comprised of the [Forum's Officers](#), and is responsible for drafting the Forum's "Top 10 Most Wanted Wireless Innovations" list and setting the Forum's "Advocacy Agenda" based on member input. These documents will be distributed to the members of the Forum for ballot following the Forum's standard process.

- The Coordinating Committee on International SCA Standards (CCSCA): supports the harmonization of SCA based standards at the international level for the mutual benefits of all stakeholders to include:
 - Defining an industry driven SCA evolution roadmap for the international community
 - Profiling the SCA specification and related APIs to define internationally accepted variants that are hosted by the Forum
 - Developing extensions to the SCA standards that address any gaps between the defined SCA evolution roadmap and Forum accepted SCA specification variants

- Providing implementation and certification guides, tools etc. easing implementation and supporting proliferation
- Establishing and managing industry led certification programs where appropriate

Management and oversight of this committee is provided by a Steering Group working in collaboration with an [Advisory Council](#).

- The role of the Spectrum Sharing Committee (SSC) is to serve as a common industry and government standards body to support the development and advancement of spectrum sharing technologies based on the three-tier architecture proposed for the 3.55 GHz rulemaking activities. While the 3.55 GHz band is the main focus on the initial activities, the Wireless Innovation Forum aims to advance this technology for all applicable spectrum bands that can benefit from it.

This Committee is intended to facilitate the interpretation and implementation of FCC rulemaking to a level that allows industry and government parties to collaborate on implementation of a common, efficient, well functioning ecosystem around this technology.

The main activities that will be conducted in the committee include:

- Detailing common industry and government functionality and architecture for Spectrum Access Systems (SAS), sensors, and devices
- Interoperability requirements and protocol definition to allow for open competitive and well-functioning systems
- Common framework for testing and integration of components of spectrum sharing technologies to allow for rapid certification and deployment and predictability, thus expanding the ecosystem and increasing utility of the spectrum
- Details of requirements, processes, and methods for protection of incumbent users as required by the spectrum rules
- Operational procedures definition for the well -functioning of the system as it pertains to spectrum assignment, managements, and interoperability

This committee is also managed by a [steering group](#), and includes observers necessary for the full operations and support of the system.

In addition to these standing committees, the Forum also has an India Regional Committee whose objective is to support the needs of the members in the India region and to create significant interest in the activities of WInnF in India.

These committees are managed by the Forum's elected officers, which include the Chair and Vice Chair of the Forum, the Chief Technology Officer, Chief Marketing Officer, Chief Regulatory Officer, the Secretary, and the Treasurer.

Organizational Structure for The Wireless Innovation Forum

10 November 2015

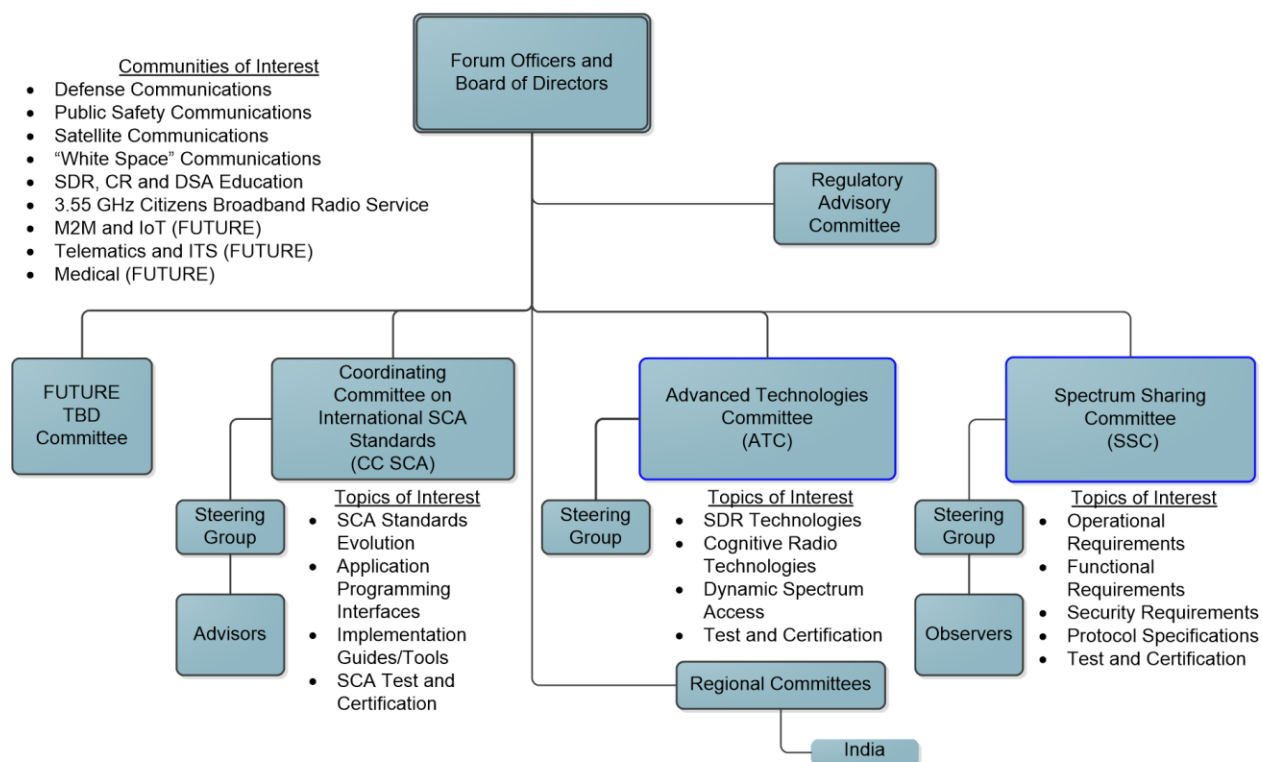


Figure 1: Wireless Innovation Forum FY2018 Organizational Structure

Management and oversight of the Forum as a whole, including the Forum's corporate affairs, is performed by the Forum's Board of Directors. These directors are elected on an annual basis, as defined in the [Bylaws](#). The elected slate of Directors for CY2017 is provided in Table 1.

Name	Member Organization	Position
Manuel Uhm	National Instruments	Chair of the Board of Directors
David Hagood	Cobham	Director, Large Company Representative
Alberto Quintana	Indra	Director, Medium Company Representative

Kurt Schaubach	Federated Wireless	Director, Small Company Representative
Paul Anuszkiewicz	CTIA	Director, Government and Non-profit Representative
Linda Doyle	CONTACT	Director, Academic Institutions Representative
Claudio Armani	Leonardo	Director, At Large Director
Paul Challoner	Ericsson	
Mark Gibson	Comsearch	Director, At Large Director
Doug Knisely	Qualcomm	Director, At Large Director
Louise Lamont	CRC	Director, At Large Director
David Renaudeau	Thales Communications	Director, At Large Director
Darcy Swain-Walsh	MITRE	Director, At Large Director
Neeti Tandon	AT&T	Director, At Large Director
Bruce Oberlies	Motorola Solutions	Officer and Director, President and Chair of the Forum, Secretary
R. Muralidharan	Tata Power SED	Officer and Director, Vice President and Vice Chair of the Forum
Ken Dingman	Harris Corporation	Officer and Director, Treasurer and Chief Financial Officer
Al Jette	Nokia	Officer and Director, Secretary
Claude Belisle	NordiaSoft	Officer and Director, Chief Technology Officer
		Officer and Director, Chief Marketing Officer
Preston Marshall	Google	Officer and Director, Chief Regulatory Officer,

Table 1: CY2017 Board of Directors of The Software Defined Radio Forum Inc. The position of Chief Marketing Officer is currently vacant.

2.1 Forum Corporate Administration

Corporate administration and member services are provided to the Forum through a combination of employees, consultants, and third-party contractors. The Forum's key personnel for FY2018 are as follows:

- Chief Executive Officer ([Lee Pucker](#)) – Reporting to the Board of Directors, the Chief Executive Officer’s primary responsibility is to maximize the value the Forum brings to its members. Accordingly, the CEO drives the development of the Forum’s Strategic Plan and supports the Forum’s other officers in executing on that plan. The CEO proactively identifies opportunities, solves the Forum’s critical problems, and makes an effort to anticipate future needs of the membership. The CEO assures that the organization and its mission, programs, products and services are consistently presented in a strong, positive image to relevant stakeholders, in particular to the Forum’s membership. The CEO, with the Treasurer, oversees the organization’s finances, ensuring the Forum’s member’s needs are met to the maximum extent possible while maintaining financial stability as a not-for-profit organization.
- Director of Marketing and Communications ([Stephanie Hamill](#)). The Director of Marketing and Communications (MarCom) has primary responsibility for managing communications for the Forum, including internet presence and member communications, and supporting the CEO in establishing and maintaining the Forum’s leadership in advanced wireless markets, evangelizing the Forum’s programs and services, and supporting the organizational objectives of the Forum’s membership. Reporting to the Forum’s CEO, the Director of MarCom helps assure that the Forum and its mission, programs, products and services are consistently presented in a strong, positive image to relevant stakeholders, in particular to the Forum’s membership.

The slate of key consultants and contractors retained by the Forum to support its members in FY2018 are as follows:

- 1) [Drohan Management Group](#) – Manager of the Forum’s Headquarters Operations
- 2) [InfoEx World Services](#) – Representative for the Forum in China
- 3) [BBD, LLP](#) – Audits and Finance
- 4) [Gesmer Updegrove LLP](#) – General Legal Counsel
- 5) [Hogan Lovells](#) – Communications Regulatory Counsel

In addition, the Forum retains a document editor on an as needed basis to support the creation of reports, specifications and recommendations by its members. Additional details on the Corporate Administration Work Plan for FY2018 can be found in Sections 7 and 8 of this plan.

3 Advanced Technologies Committee (ATC) (Chair: Bruce Oberlies, Motorola Solutions)

The following high-level goals have been assigned to this committee by the Board of Directors:

- 1) Primary Goals:
 - a. Brand the WInnForum as the Preferred Venue for the International Spectrum Sharing Community
 - b. Identify new Market Area Relevant to the Forum's Mission
- 2) Shared Goals:
 - a. Establish Relevant Projects
 - b. Evaluate and Revise the Strategic Plan

The project plans to support these goals are addressed in Sections 3.2 and 3.3 below.

3.1 Charter and Structure

The Advanced Technology Committee is led by a Steering Group comprised of the Forum's Executive Committee with non-voting Advisors nominated to participate by the Forum's volunteer CMO, CRO and CTO. Sponsors are as follows:

- Public Safety Advisor – Stu Overby and Don Root (NPSTC)
- Tactical Radio Advisor – Alberto Quintana, Indra
- Spectrum Sharing Communications Advisor – Preston Marshall, Google

The primary role of the Steering Group is to identify projects of strategic relevance to the Forum membership, to prioritize and launch projects as appropriate, and to monitor those projects to ensure and support execution (see Figure 2).

In addition, the Steering Group maintains the Forum's Top 10 Most Wanted Wireless Innovations list and Advocacy Agenda.

In FY2018, the ATC Steering Group will investigate how to expand and better leverage the Advisors.

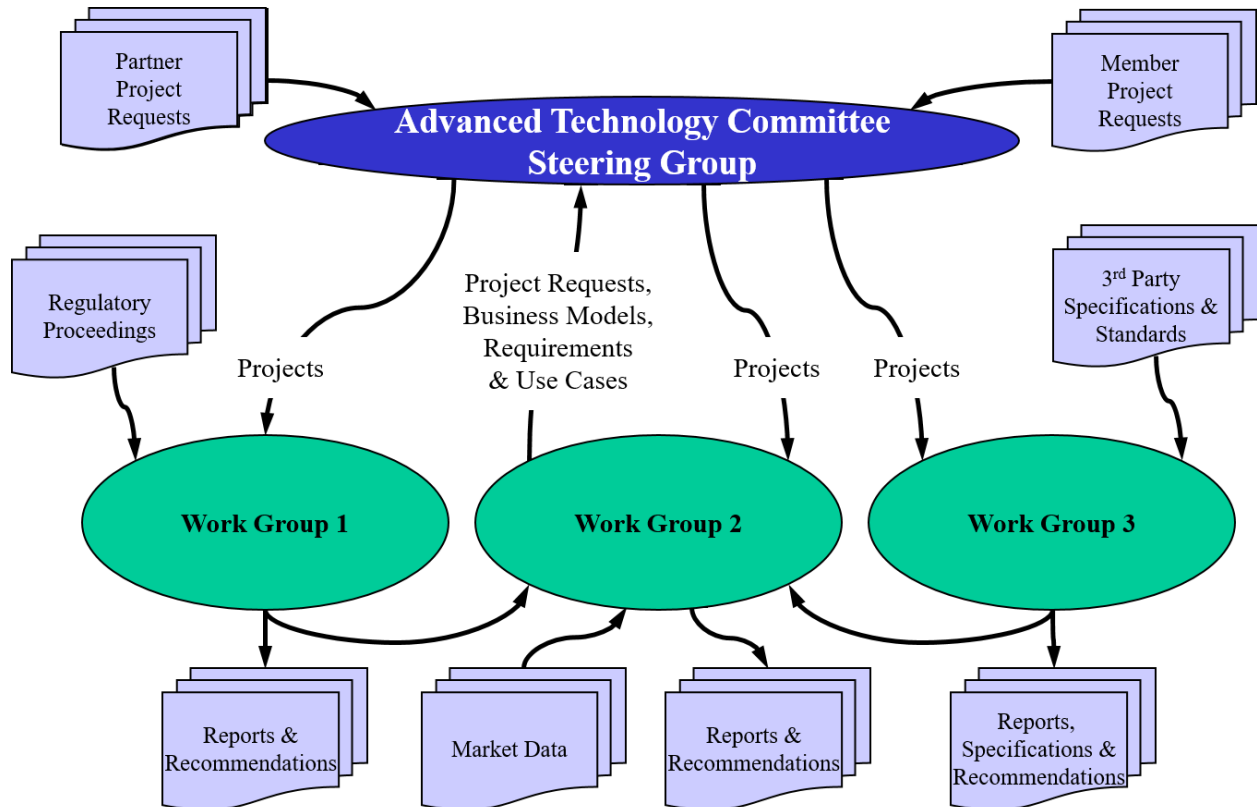


Figure 2: Advanced Technology Committee Project Approval Process

3.2 FY2018 Objectives

The Advanced Technology Committee has established the following committee objectives for FY2018 to support the Forum's High Level Objectives:

3.2.1 Brand the WInnForum as the Preferred Venue for the International Spectrum Sharing Community

The WInnForum's Advanced Technology Committee (ATC) will work to build on its success in forming the Spectrum Sharing Committee (SSC), and strengthen that community to ensure continued success. In addition, the WInnForum will undertake the following:

- Broaden focus of standards, processes and regulatory frameworks developed for Part 96 to other frequency bands than 3.55 GHz.
- Leveraging the experience in the Citizens Broadband Radio Service (CBRS, FCC Part 96), brand the Forum as the venue where licensed and unlicensed communities come together to figure out how to share spectrum.

Specifically, the ATC committee plans to develop a project to create a technical report more broadly looking at the application of the SAS concept in other bands and spectrum sharing frameworks other than 3-tier. This project will expand the Forum brand as a venue for licensed and unlicensed communities beyond the US CBRS ecosystem.

3.2.2 Identify New Market Area Relevant to the Forum's Mission

The WInnForum's Advanced Technology Committee (ATC) will act as an incubator for exploring potential new markets relevant to the Forum's mission. In FY2018, the ATC will execute on the "platform strategy" defined in FY2016 which will guide the identification of new project/market areas. The ATC will work with the WInnForum's members to select and develop at least one new market area. The committee will work on advancing and formalizing partnerships and end user community in existing and new market areas.

ATC will work with Forum staff on executing the "platform strategy" framework.

- a. Promotion Package: Support staff in developing a promotion package.
- b. Event Presence: Work with membership through a survey to identify potential trade shows/events. Prioritize one or two events where our target market is located and sign up to present/exhibit and/or co-sponsor for reduced exhibit/presentation fee.
- c. General Advertising: Work with membership to identify appropriate vehicles for paid advertising. Help staff prioritize the opportunities and work with BoD to fund. Support goal of monthly blog produced by Forum staff and membership.

3.2.3 Establish Relevant Projects

The Forum's Advanced Technologies Committee will form both member driven projects addressing immediate needs and roadmap driven projects advancing supporting the Forum's Advocacy Agenda or Top 10 Most Wanted Wireless Innovations list. A project of the Advanced Technologies Committee will be to publish a revision of the "Top 10 Most Wanted Wireless Innovations" list in FY2018. The WInnForum's Advanced Technologies Committee will also maintain and advance the Advocacy Agenda as required and shall coordinate activities with regulatory agencies and standards bodies to advance the Advocacy Agenda. Section 3.3 provides an overview on the current project plans.

3.3 FY2018 Project Plan

The Advanced Technology Committee will extract roadmap requirements from use case, business model and market study reports developed by its members for consideration in the Forum's Top 10 Most Wanted Wireless Innovations List. Additionally a roadmap of projects will be identified supporting positions within and promotion of the advocacy agenda as required. Topic Sponsors of the Advanced Technology Committee will assist in organizing projects focused on the specific needs identified in the Roadmap, Top 10 Most Wanted Wireless Innovations List, and Advocacy Agenda.

The WInnForum's Advanced Technologies Committee will maintain and advance the Advocacy Agenda as required and shall coordinate activities with regulatory agencies and standards bodies to respond to inquiries and proceedings to advance the Advocacy Agenda.

In support of the Forum's Top 10 Most Wanted Wireless Innovations List and to guide the Advanced Technology Committee's choice of projects, the Advanced Technology Committee shall convene a discussion at each face-to-face meeting for the purpose of defining and publishing an Advanced Technology Committee Roadmap and an Advanced Technology Committee Watch List.

3.3.1 Advanced Technology Committee Roadmap

The Advanced Technology Committee Roadmap is a document that outlines strategic projects the ATC desires to undertake in support of the Forum's Advocacy Agenda, the Forum's Top 10 Most Wanted Wireless Innovations List, and the ATC Watch List. The list does not restrict the projects that Topic Sponsors may support but rather guides the Advanced Technology Committee to launch new projects that are aligned with the objectives of the Committee.

The Chair of the Advanced Technology Committee is responsible for the Roadmap.

3.3.2 The Forum's Top 10 Most Wanted Wireless Innovation List

The Advanced Technology Committee is responsible for the Wireless Innovation Forum Top 10 Most Wanted Wireless Innovation List produced by the Forum identifying the 10 most wanted innovations in terms of technology, regulations, or business practices as identified by the Forum members.

The Advanced Technologies Committee, Coordinating Committee on International SCA Standards and Spectrum Sharing Committee identify items on their roadmaps requiring investment in significant technical, business or regulatory innovation to be added to a Forum wide "watch list". This "watch list" will be periodically reviewed by the Advanced Technologies Committee Steering Group to determine if items on the list should be promoted to the Forum's "Top 10 Most Wanted Wireless Innovations". To maximize the impact of the Top 10 list, it is important that we also reach to the widest community of members and stakeholders as possible so that required innovations are discussed and challenged. To facilitate the discussion, we will use the WInnComm 2018 conference to bring together those members and stakeholders and organize presentations and round tables on the topics of Required Innovations.

The process that will be adopted by the Committee in FY2018 is as follows:

The Forum CTO, with the support of the ATC Steering group, will form a committee to select the 10 innovations that will make it on the list.

The format will be:

1. Each Forum Committee (Advanced Technologies Committee, Coordinating Committee on International SCA Standards and Spectrum Sharing Committee) will identify a number of people from government, clients, manufacturers, etc. to be invited as guest speakers at the WInnComm 2018 conference.
2. The presentation would be targeted towards one or more innovations the presenter would like to address.
3. Round table sessions will be organized gathering those presenters and a discussion would follow around the identified innovations. There could be multiple of those round tables.
4. From the general presentations (those issued from the Call for Presentations), we will select some the speakers to join in the Round Table discussion.
5. Following the Round Table discussion, the Top 10 committee will prepare the Top 10 List for publication.

3.3.3 Technical Report on Application of Spectrum Access Systems

The WInnForum's Advanced Technology Committee (ATC) will work to build on its success in forming the Spectrum Sharing Committee (SSC), and strengthen that community to ensure continued success. Leveraging the experience in the Citizens Broadband Radio Service (CBRS, FCC Part 96) efforts on the application of SAS (Spectrum Access System) the ATC committee plans to develop a project to create a technical report more broadly looking at the application of the SAS concept in other bands and spectrum sharing frameworks other than 3-tier. This project will expand the Forum brand as a venue for licensed and unlicensed communities beyond the US CBRS ecosystem.

3.3.4 Advocacy Agenda

The Advanced Technology Committee of the Forum is responsible for the Advocacy Agenda and maintaining a consolidated list of proposed changes/additions to the Advocacy Agenda.

The process that will be adopted for updating the Advocacy Agenda in FY2018 is as follows:

- The ATC Steering Group committee shall have a meeting agenda item quarterly or more frequently if needed to discuss changes to the Advocacy Agenda.
- The Chief Regulatory Officer is responsible for consolidating all Advocacy Agenda inputs from all Forum Committees. The procedure shall be as follows:
 - The CRO shall lead a discussion of the consolidated proposals. If changes to the Advocacy Agenda are presented by any Committee, a discussion of the merits of modifying the Advocacy Agenda shall be conducted.
 - Any changes to the Advocacy Agenda shall be balloted at the subsequent ATC Steering Group Meeting

- In addition the CRO shall maintain a consolidated Forum Advocacy Agenda proposed changes list based on inputs from all Forum committees.

The Advocacy Agenda shall be available to the public on the Forum's website allowing for comments

- Any public comments shall be reviewed by the CRO and sent to the appropriate Committee for consideration in the committee level Advocacy Agenda proposed changes list.

The proposed changes list shall only be available to Forum members on the Forum's website.

4 Coordinating Committee on International SCA Standards (CC SCA) (Chairs: Ken Dingman, Harris Corporation and Eric Nicollet, Thales)

The following high level goals have been assigned to the committee from the Board of Directors:

- 1) Primary Goals:
 - a. Execute on the Strategic Plan of the Coordinating Committee on International SCA Standards
 - b. Execute on Test and Certification Strategies for WInnForum Standards
- 2) Shared Goals:
 - a. Establish Relevant Projects
 - b. Improve Regional Support
 - c. Support the revision of the WInnForum Strategic Plan

4.1 Charter and Structure

The current mission of the Coordinating Committee on International SCA Standards (CC SCA) is to “support international harmonization of the SCA through open standards with unlimited public access, while influencing the specification and development and verification of portable SCA based waveforms”.

The CC SCA is comprised of 3 major organizational elements. A Steering Group (SG) that is responsible for coordinating the different activities within the CC SCA and ensuring that liaisons with the stakeholders and the Forum’s Board of Directors are maintained. An Advisory Council that acts as an advisory body to the SG, representing various Government stakeholders in the identification of requirements and development of visions to support their operations. A set of Working Groups that focus on identifying needs/issues and providing solutions, executing approved projects. For FY2018, there are five active Working Groups, with activities in the SCA API Work Group, International Tactical Radio SIG and International Radio Security Services Working Group suspended:

- Advocacy Working Group
- SCA Evolution Working Group
- SCA Test & Evaluation Working Group
- Transceiver Working Group
- SCA Implementer’s Working Group: Not Active
- SCA API Working Group: Not Active
- International Tactical Radio Special Interest Group: Not Active

- International Security Services Work Group: Not Active

The structure of the CC SCA organization is provided in Figure 2 below in conjunction with the relationship of the CC SCA to other WINNF organizational elements. Steering Group Members include:

- A4ESSOR
- Harris Corporation
- Hitachi Kokusai Electric
- Indra Sistemas
- Raytheon
- Rockwell Collins
- Rohde & Schwarz
- Selex ES
- Thales

Structure for Coordinating Committee on International SCA Standards

15 Jun 2015

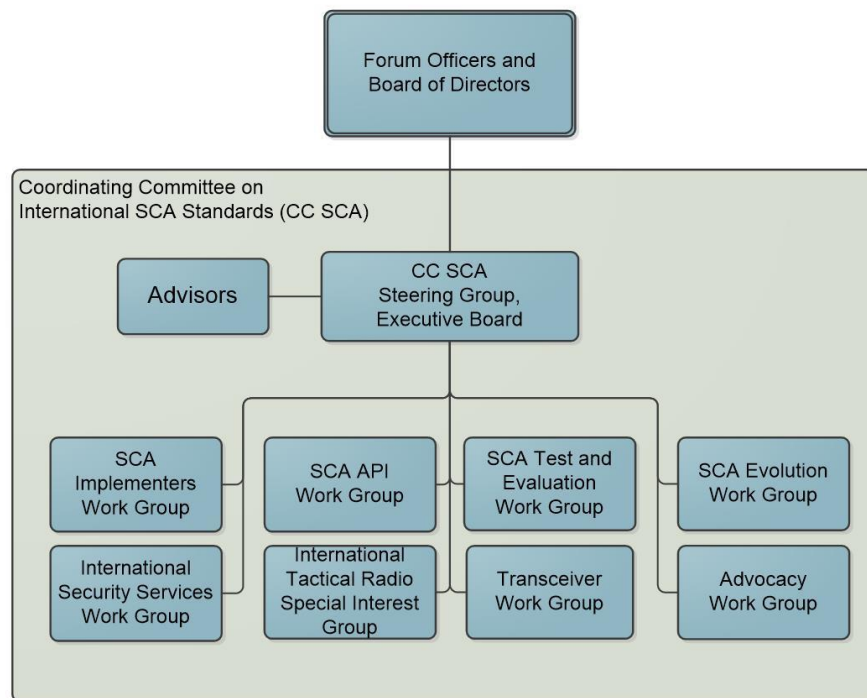


Figure 3: Coordinating Committee on International SCA Standards Organizational Structure

4.2 *FY2018 Objectives*

The CC SCA has established the following committee objectives for FY2017 to support the needs of the members and participants of the CC SCA in conjunction with the WINNF's "High Level Objectives".

4.2.1 **Promote Software Defined Radio Standards and Technology World-wide**

This objective relates to the Outreach foundational element of the Strategic Plan and maps to the "Execute the Strategic Plan" goal assigned by the Board of Directors.

Recently, the CCSCA has been stagnant, with active participation shrinking as the SCA has matured and expansion of its usage into other domains has been slow. The CCSCA will be rebranded to allow for involvement in technologies and standardization activities beyond the SCA. Rebranding along with marketing the ability of the WinnF as a standards development organization will provide the opportunity to bring new technologies, markets and hence organizations into the WinnF. Support and advancement of the SCA will **continue to be a primary focus** of the committee (see the projects planned for this FY).

The activities that will be performed in support of this are

- Change the name of the committee
- Develop appropriate messaging supporting the expanded scope of the committee while maintaining focus on the SCA
- Market the new committee to include hosting a workshop for:
 - Evaluate use cases and application domains for SDR technologies
 - Evaluate other SDR standards which the members of the Forum may wish to support

4.2.2 **Drive worldwide convergence to a common SCA standard**

This objective relates to the Standards Harmonization foundational element of the Strategic Plan and maps to the "Execute on the Strategic Plan of the CCSCA" goal assigned by the Board of Directors.

The CC SCA Steering Group will develop plans for drive convergence to a common SCA and related API's. Leveraging the Advisors, the CC SCA Steering Group will solicit existing SCA based programs to determine content they will be willing to share towards developing a singular SCA and SDR API set of standards definitions. Based on these inputs, a roadmap of standards updates that could

be developed to guide continued SCA based standards and associated eco-system evolution through technology development and insertion. Roadmap solutions associated with defined needs will be expressed through a representative combination of suitable elements, which can include:

- Business cases and operating models
- Policies, guidelines, best practices and lessons learned
- Identification and establishment of supporting infrastructure (i.e., process, procedures, tools)
- Specifications, Standards (i.e., APIs) and Technical Reports
- Prototypes (proof of concept implementations)
- Services (i.e., Certification support)

These roadmaps will be utilized to define, prioritize and establish relevant CC SCA projects. Elements of these roadmaps that require significant technical, business or regulatory innovation will be submitted to the Forum's Roadmap Committee for inclusion in the Forum's "Top 10 Most Wanted Wireless Innovations" report as defined in Section 3.3.2 of this Operations Plan.

4.2.3 Develop and Leverage End-User Community Partnerships

The CC SCA Steering Group will develop and leverage End-User community partnerships as a foundational element to coordinate and harmonize SCA Standards for the benefit of all stakeholders. This will be accomplished by building on the Advisory Council (AC) model through the following:

1. Continued facilitation of information exchange with AC members.
2. Continuation of formal relationships, such as contracts, research and development agreements and memorandums of understanding where appropriate.
3. Strategic expansion of AC membership. As an example, in support of the development of the SCA 4.1 Test Procedures, the US DoD Joint Technical Laboratory (JTeL) will be approached to become an AC member

4.2.4 Contribute towards Coalition Interoperability Solutions

This objective relates to the "Execute on the Strategic Plan of the CCSCA" and may contribute to "Grow Regional Support" goals provided by the Board of Directors.

The CC SCA will establish itself as a venue that can contribute to the international discussion on coalition operations. The CCSCA will identify how standardization of technical solutions can be provided to support improved coalition operations. The CCSCA will establish relationships with

existing organizations (such as NATO) and countries not participating in formal coalition alliances in order to identify and provide solutions that complement activities currently underway.

4.2.5 Test and Certification

This objective maps to the “Establish a Test and Certification Strategy for WInnForum Standards” goal assigned by the Board of Directors.

The CC SCA strategy is to analyze the needs from programs, program offices and other development activities occurring in the WInnForum and worldwide in FY2017 to determine the feasibility of value added evaluation and/or certification services that the WInnForum can provide. Appropriate initiatives and projects within the scope of the CC SCA charter will be developed as these opportunities are realized.

A concrete example is the completed 2016 WInnForum SCA 4.1 Requirements Allocation, Objectives, and Verification project and resultant release document. The SCA 4.1 Requirements Allocation, Objectives, and Verification project analyzed each requirement of the main SCA 4.1 specification. This analysis provided requirement allocation to Operating Environment (OE), Application (AP) and to both OE and AP indicated as “Both”, along with the a objective of the requirement and also a verification criteria for each requirement. This document with other government and industry artifacts provides the foundation for the SCA 4.1 Test Processes and Procedures project scheduled for execution in FY2018. The execution of the SCA 4.1 Test Processes / Procedures project within the scope of the CC SCA provides the opportunity to determine the feasibility and possible opportunity of the WInnForum being an accreditation or certification body for SCA 4.1.

4.3 FY2018 Project Plans

The CC SCA plans to deliver multiple work products through a series of projects in FY2018. Specific work products and milestones delivered from existing and planned projects are presented below.

The primary areas of focus for project execution will be

- SCA 4.1 Test Procedures
- SCA and API Standardization and Harmonization
- Coalition Interoperability
- Expanding the scope of the committee

The following projects will be executed in FY2018 in support of this.

4.3.1 Projects

The CC SCA plans to execute the following projects in FY2018 (see above for work product descriptions).

1. *“SCA Harmonization Roadmap”*

- **Objective:** The Roadmap project will identify areas of discrepancy between implementations and develop a prioritized list of APIs and segments of the SCA where harmonization is required. Based on this it will create a roadmap to drive convergence on a common set of SCA based standards. This effort will be run as a Project, with a defined plan, committed participation and reporting to the BoD.
- **Work Group:** CC SCA
- **Project Lead:** Ken Dingman, Harris/Eric Nicollet, Thales
- **Milestones:**
 - i. Project Plan Approved: January 2018

2. *“Timing Services API Harmonization”*

- **Objective:** The **SCA Evolution Work Group** will drive the continued evolution of SCA Standards through the technical analysis, evaluation and recommendation of corrections, extensions and improvements, delivering formal recommendations and updated standards to the JTNC Standards Organization for consideration of incorporation into future versions of the specifications. Upon completion of the Transceiver Facility API, a Timing Services API Harmonization project will begin with inputs contributed from the JTNC (published Timing Service API), ESSOR and industry.
- **Work Group:** SCA Evolution
- **Project Lead:** TBD
- **Milestones:**
 - Project Plan Approved: November 2017

3. *“Transceiver Facility API v2.0 PSMs”*

- **Objective:** Augment the Transceiver Facility 2.0 PIM Specification with PSMs for C, C++, RTL and SCA
- **Work Group:** Transceiver API WG
- **Project Lead:** TBD
 - **Milestones:**
 - Project Plan Approved: May 2017
 - Project Completion: April 2018

4. *“SCA 4.1 Test Processes and Procedures project ”*

- **Objective:** Develop SCA 4.1 Test Processes / Procedures. Project output will provide SCA 4.1 test related artifacts for future SCA 4.1 accreditation or certification activities.
- **Work Group:** Test and Evaluation WG

- **Milestones:**
 - Project Plan Approved: June 2017
 - Target Project Duration: 12 to 18 months

5. *“Coalition Interoperability”*

- **Objective:** Develop an exploratory report that will focus on emerging tactical coalition communications demands driven by the need for improved coordination between deployed units of forces from different nations and agencies, including shared situational awareness (i.e., Blue Force Tracking), exchanging secure voice, data and multimedia information. First section of the report will describe a number of coalition contexts of various scales and sets of stakeholders. Second section will conduct a standards gap analysis aiming at identifying needs and issuing recommendations regarding the standards required in support of the coalition contexts.
- **Work Group:** International Tactical Radio Special Interest Group
- **Project Lead:** Eric Nicollet (acting)
- **Milestones:**
 - Revised Project Plan: October 2017
 - Finalized coalition contexts section: March 2018
 - Finalized gaps analysis: September 2018
 - Project Complete: December 2018

6. *“Committee Rebranding”*

- **Objective:** Rebrand and position the committee to allow the committee to participate in technology development and standardization activities beyond the SCA.
- **Work Group:** Steering Group
- **Project Lead:** Ken Dingman
- **Milestones:**
 - Project Plan Approved: July 2017
 - New committee name: August 2017
 - Completion of messaging and marketing collateral: October 2017
 - Includes revised charter, etc.
 - Rollout of New committee brand: November 2017 (US Conference)
 - To include a mini-workshop within the US conference
 - To include establishing advocacy project (see 7.)
 - Project Complete: December 2017

7. *“Committee Advocacy”*

- **Objective:** Reach out to new markets and participants based on Committee rebranding.
- **Work Group:** Advocacy

- **Project Lead:** Claude Belisle
- **Milestones:**
 - Project Plan Approved: December 2017

5 Spectrum Sharing Committee (Chairs: Preston Marshall, Google and Kurt Schaubach, *Federated Wireless*)

The following high-level goals have been assigned to the committee from the Board of Directors:

- 1) Primary Goals:
 - a. Brand the Forum as the preferred venue for the spectrum sharing community
 - b. Establish a test and certification strategy for WInnForum Standards
- 2) Shared Goals:
 - a. Establish relevant projects
 - b. Improve regional support

The project plans to support these goals are addressed in section 5.2 and 5.3 below.

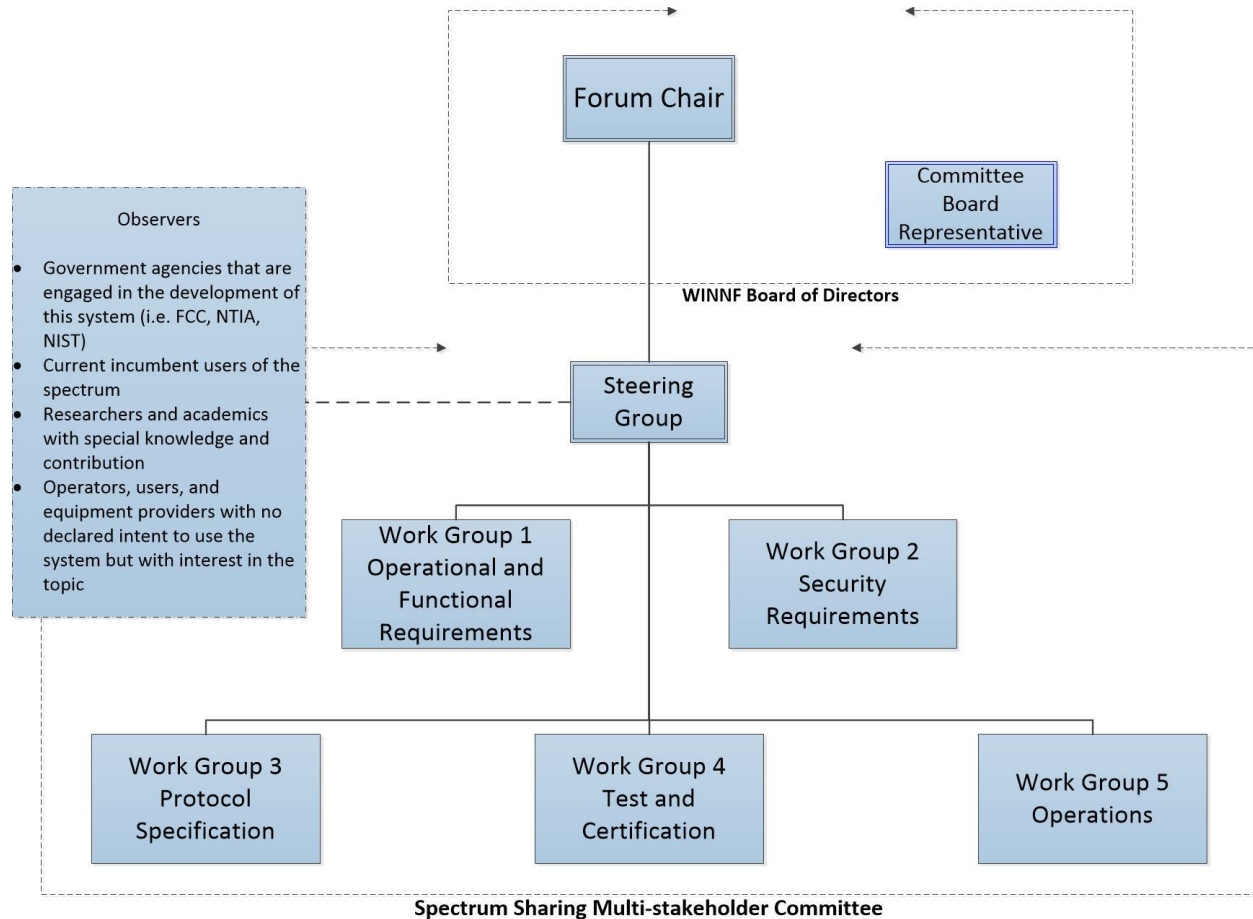
5.1 Charter and Structure

The Spectrum Sharing Committee (SSC) supports the development and advancement of spectrum sharing technologies based on the three-tier architecture proposed for the 3.55 GHz rulemaking activities. While the initial focus is on the 3.55 GHz Citizens Broadband Radio Service (CBRS), the Committee aims to advance this technology for all applicable spectrum bands that can benefit from it.

The charter for the Committee is to facilitate the interpretation and implementation of FCC rulemaking to a level that allows industry and government parties to collaborate on implementation of a common, efficient, well-functioning ecosystem around this technology. The primary activities of the Committee include:

- Detailing common industry and government functionality and architecture for Spectrum Access Systems (SAS), Environmental Sensing Capability (ESC), and CBRS devices
- Defining interoperability requirements and protocols to allow for open, competitive, and well-functioning systems
- Developing a common framework for testing and integration of components of spectrum sharing technologies to allow for rapid certification, deployment, and predictability, thereby expanding the ecosystem and increasing utility of the spectrum
- Establishing requirements, processes, and methods for protection of incumbent users as required by the spectrum rules
- Setting operational procedures definition for the well-functioning of the system as it pertains to spectrum assignment, managements, and interoperability

The approach to work activities by the Committee emphasizes system interoperability while achieving simplicity in interfaces and requirements. This is done to advance competitive and innovative approaches and to increase deployment speed of these systems.



The Committee is led by a Steering Group responsible for managing the overall activity flow and ensuring consensus and agreement with results from the discussions, such that progress can be made properly and timely to serve the interest of all the stakeholders. Membership of the Steering Group is comprised of the following:

- Committed SAS developers and operators (engaged in the development of the system and intend on participating in this market)
- Committed Sensor and/or Device developers and wireless equipment suppliers (engaged in the development of the system and intend on participating in this market)
- Committed users and service operators (engaged in the development of the system and intend on participating in this market)

Steering Group member companies include:

- Airspan
- AT&T
- Comsearch
- CTIA
- Ericsson
- Federated Wireless
- Google
- Huawei
- Keybridge Global
- Motorola Solutions
- Nokia
- Pathfinder Wireless
- Qualcomm
- RED Technologies
- Ruckus Wireless
- Sony
- T-Mobile
- Telrad
- Verizon
- WISPA

The Steering Group identifies projects of strategic relevance to the membership; assigns, prioritizes, and launches new projects within subcommittee Working Groups; sets desired outcomes and monitors projects within the Working Groups to ensure their support and timely execution; and approves Working Group recommendations.

Further, the Steering Group ensures that activities are not directed at policy-making or liability management. While the Committee may, from time to time, make formal technical recommendations to the FCC or other regulatory bodies, following the Forum's standard policies and procedures, it is nonetheless a standards and technical implementation forum.

5.2 FY2018 Objectives

5.2.1 Finalize and Publish Release 1 CBRS Standards

The Spectrum Sharing Committee has identified the following standards to be incorporated into Release 1:

- WINNF-15-S-0112-V3.0.0 Operational and Functional Requirements
- WINNF-17-S-XXXX-V1.0.0 Incumbent Protection Amendment for WINNF-15-S-0112-V3.0.0
- WINNF-15-S-0065-V2.0.0 CBRS Communications Security Technical Specification
- WINNF-15-S-0071-V1.0.0 CBRS Operational Security Technical Specification
- WINNF-16-S-0016-V2.0.0 SAS to CBSD Protocol Specification
- WINNF-16-S-0096-V2.0.0 SAS to SAS Protocol Specification
- WINNF-16-S-0061-V1.0.0 SAS Test and Certification Specification
- WINNF-17-S-XXXX-V1.0.0 Incumbent Protection Amendment for WINNF-17-S-0061-V1.0.0
- WINNF-17-S-0122-V1.0.0 CBSD Test and Certification Specification
- WINNF-16-S-0245-V1.0.0 PAL Database Specification
- WINNF-17-S-0022-V1.0.0 CBRS PKI Certificate Policy
- WINNF-16-S-0247-V1.0.0 CPI Training Program Accreditation Standard
- WINNF-17-S-XXXX-V1.0.0 CBSD Protocol Test Lab Approval Standard

The committee will work to complete these standards by the end of Q1 FY2018 (September 2017) to support commercial deployment of GAA Category A and Category B devices by December 2017.

5.2.2 Promote CBRS Standards Adoption

Adoption of standards approved and published by the Committee is vital to expanding the Forum's leadership and brand in the spectrum sharing community. In FY2018, the Committee will establish an Awareness Task Group, reporting to the Steering Group, to work with the Forum's Executive Committee and Forum Staff to further Committee activities to market CBRS Standards publications and helping in expanding the CBRS ecosystem.

5.2.3 Establish a CBRS Accreditation Program

Building on the work begun last year, the Spectrum Sharing Committee will work to accredit WinnForum Approved Vendors in three Areas:

1. CBRS PKI Root of Trust Training Administrator
2. CBRS Certified Professional Installer Training Program Administrator
3. CBSD Protocol Test Administrator

The goal in establishing these services is to support commercial deployment of GAA Category A and Category B devices by December 2017. Following this initial commercial deployment, the Committee will evaluate other potential areas for WinnForum approval.

5.3 FY2018 Project Plans

The detailed Release Plan for the Spectrum Sharing Committee can be found here:

https://workspace.winnforum.org/higherlogic/ws/public/document?document_id=4182&wg_a_bbreve=SSC

Plans for FY2018 by work group are as follows.

5.3.1 SSC Work Group 1: Operational and Functional Requirements

The objective of this Working Group is to work on further defining Spectrum Access Systems (SAS) functional requirements as they relate to creating an interoperable system across the various providers of systems and equipment within the industry. There is no intent in this Working Group to define a common architecture and design for SAS systems. This Working Group will further track and articulate common functional questions that require industry consensus for further clarification and definition.

FY2018 Goal

WG1's FY2018 goal is to continue to develop the standards and requirements that will allow the CBRS community to translate the FCC rules into implementable and interoperable functions, building upon current work product. The group will also define new additional requirements to improve efficiency and usage of the CBRS band.

Standards Deliverables:

The Group developed and approved the Operational and Functional Requirements Version 2 deliverable in FY2017. In FY2018, the group will expand on this deliverable for Version 3 to provide the following Release 1 functionality:

- **Border Area Management**
- **CBSD Measurement Reporting**
- **CBSD Registration Processing**
- **Domain Proxy**
- **Dynamic Protection Zones**
- **Environmental Sensing Capability (ESC)**
- **Exception Management**
- **FSS Protection**
- **Grandfathered Wireless Device Protection**
- **Operations Security**
- **PAL Protection Area Definition**
- **Propagation Modeling**
- **SAS to SAS Information Sharing**
- **Spectrum Grant Request Processing**

Upon completion of Version 3, the group will begin work on Version 4 to add functionality that includes:

- **CBSD to CBSD Operation**
- **Channel Assignment Optimization**
- **GAA Coexistence**
- **PAL Leasing**
- **Enhancements from Release 1**

Delivery Plan:

The Release 1 deliverables are targeted for August 2017 and the Release 2 deliverables are targeted for October 2017.

Group member activity and participation are high and the group regularly receives contributions of very high quality. In the opinion of the Group Chairs the stated deliverables have a high likelihood of successful completion by the scheduled date.

5.3.2 SSC Work Group 2: Security Requirements

Work on the security completed in FY2017 and so the group has recessed until such time as new requirements are identified.

5.3.3 SSC Work Group 3: Protocol Specifications

The goal of this working group is to define the detailed protocols for data and communications across the various open interfaces within the system. The interfaces are limited to what is the minimum needed for implementation of an open and interoperable system. Other interfaces may be included later. The objective is to use common interfaces and as light of a protocol as possible to allow for innovation and development of the subsystems in a healthy competitive environment while preserving the openness of the system.

FY2018 Goal

WG3's charter is to define the detailed protocols for data and communications across the various open interfaces within the system. In FY2017, WG3 successfully delivered Version 1 of Release 1 of the Technical Specifications for:

- SAS-SAS Protocol Specification: Protocol between different SAS systems
- SAS-CBSD Protocol Specification: Protocol between devices and SAS system

WG3's FY2018 goal is to continue to develop and refine protocol standards for the CBRs system, building upon current work product.

Standards Deliverables:

WG3 has defined two Release 1 Version 2 and two Release 2 deliverables for FY2018. In each phase, a SAS-to-CBSD and SAS-to-SAS protocol specification will be delivered. These specifications will address:

- Change requests
- Additional requirements developed by WG1 and/or WG2 that may have protocol impacts.
- Any rule changes resulting from a new rulemaking by FCC on CBRS.

Delivery Plan:

The Release 1 deliverables are targeted for mid-June 2017 and the Release 2 deliverables are targeted for mid December 2017.

Group member activity and participation are high and the group regularly receives contributions of very high quality. In the opinion of the Group Chairs the stated deliverables have a high likelihood of successful completion by the scheduled date.

5.3.4 SSC Work Group 4: Test and Certification

The goal of this working group is to define the test and certification standards for the SAS and across the various interfaces within the system. The certification should be limited to what is the minimum needed for the creation of a simple and standard certification process for an open and interoperable system. The objective is to implement a test architecture that enables a competitive, innovative, and open environment for the development of the SAS and other ecosystem elements.

FY2018 Goal

The FY2018 goal is to fully support certification against CBRS Release 1 Standards to allow for commercial deployment of GAA Category A and Category B devices by December 2017. The work group will then move forward to allow full support of certifications against CBRS Release 2 Standards later in the fiscal year.

Standards Deliverables:

The work group will complete Version 1 and Version 2 of the CBRS SAS Test Specification, which will enumerate the Test and Certification of the SAS for Release 1 and Release 2, respectively. The work group will also complete Version 1 and Version 2 of the CBRS CBSD Test Specification, which will enumerate the Test and Certification of the CBSD for Release 1 and Release 2, respectively. The group will also complete work on the test code for these two releases in parallel with the specification work.

Delivery Plan:

The Release 1 deliverables are targeted for September 2017 and the Release 2 deliverables are targeted for March 2018.

Group member activity and participation are high and the group regularly receives contributions of very high quality. In the opinion of the Group Chairs the stated deliverables have a high likelihood of successful completion by the scheduled date.

5.3.5 SSC Work Group 5: Operations

The charter of working group 5 is to support common operational needs for a vibrant CBRS ecosystem. This includes:

- 1) Defining the operational aspects for the FCC's Certification Tests of SAS, ESC, and CBSD elements;
- 2) Certification Authority (CA) Administration;
- 3) Partnering with other organizations to implement a Training and Certification process for CBSD Professional Installers;
- 4) Developing specifications for non-automated/non-protocol based operational procedures.

FY2018 Goal

In FY2017, the work group published standards for CBRS PKI Root of Trust Operators and issued an RFP for accreditation of these operators. Initial selection of approved vendors is expected in early FY2018. Beyond that, the FY2018 goal is to fully support operational elements necessary for commercial deployment of GAA Category A and Category B devices by December 2017. The work group will then move forward to allow full support of operational elements for Release 2 Standards later in the year.

Standards Deliverables:

The work group will deliver a certified professional installer training program approval standard and a CBSD protocol test lab approval standard in support of Release 1. Release 2 deliverables will be defined by December 2017.

Delivery Plan:

The Release 1 deliverables are targeted for September 2017 and the Release 2 deliverables are targeted for March 2018.

Group member activity and participation are high and the group regularly receives contributions of very high quality. In the opinion of the Group Chairs the stated deliverables have a high likelihood of successful completion by the scheduled date.

6 Board of Directors FY2018 Work Plan

6.1 General Governance

A primary responsibility of the Board of Directors in FY2017 is monitoring the operations of the Forum ensuring compliance with the 2014 to 2017 Strategic Plan and this Operations Plan. Meetings of the Board of Directors are planned for the following dates:

- Web conferences the second Thursday of each month at 10AM Eastern US Time
- November 2017 San Diego, California (in conjunction with WinnComm)
- May 2018 in TBD (in conjunction with WinnComm-Europe)

Additional interim Board Meetings may be scheduled as required.

An additional key role of the Board of Directors is monitoring the financial performance of the Forum. The CEO will send the status of membership and the updated FY2017 financial forecast to the Board monthly. In addition, the financial performance is reviewed following the schedule below:

- October 2017 Board Meeting – Review the audited financial results for FY2017 to be presented to the members at the Annual, and the Q1 FY2018 forecast with projections for the remainder of the year.
- Annual Meeting of the Members – Present FY2017 audited financial results to the members, present updated FY2018 projections
- March 2018 Board Meeting – Review Q1 and Q2 FY2018 unaudited financial results and projections for the remainder of the year.
- June 2018 Board Meeting – Review the FY2018 forecast and approve the FY2019 Operation Plan and Budget and submit to the membership for approval.

Additional work by the Board to monitor performance and explore strategy is undertaken by the following Board committees:

- **Audits Committee** – Provides board oversight of the organization’s annual financial audit, including reviewing the adequacy and reliability of the Forum’s internal controls and financial reporting, review the independence of and performance of the Forum’s external auditor, review alleged violations of the Forum’s stated policies, and reports to the board on recommendations. Chair: Assigned by the Chair of the Board
- **Finance Committee** – Provides board oversight of the Forum finances including recommending financial policies and internal controls, reviewing the annual budget prepared by staff and recommending it to the full board for approval, and monitoring financial reports prepared by the staff, including monitoring of investments, against the approved budget. Chair: Treasurer

- **Employee Compensation and Contractor Performance Committee (ECCP)** – as defined in the Forum’s [Bylaws](#)
- **Governance and Policy Committee** – provides oversight and assessment of the Board, identifies requirements for Board orientation and education. Reviews current best practices and governance trends and makes recommendations to the full board on bylaws and policies. Chair: Secretary
- **Nominating Committee** – As defined in the Forum’s [Bylaws](#). The CY2017 Nominating Committee is formed by the Chair of the Board of Directors on or before the start of the June General Meeting, and presents the proposed slate of Directors to the Board at the October 2017 Board meeting.
- **Outreach Committee** – provides input to the Board on venues and events that the Forum should have representation in attendance.

6.2 Revising the Strategic Plan

The current strategic plan under which the Forum operates was developed in CY2012 to address 2013 to 2017. The Board will form a planning committee in early FY2018 to refresh the strategic plan, with proposed changes to be presented to the membership at the annual meeting.

7 Infrastructure and Support Services

7.1 Executing on the Platform Strategy

High Level Objectives Supported:

- Brand the WInnForum as the Preferred Venue for the International Spectrum Sharing Community
- Identify New Market Area Relevant to the Forum's Mission
- Establish Relevant Projects
- Improve Regional Support
- Grow Revenue

At the time of this writing the third of a three stage Platform Strategy plan below was being executed:

- Stage 1: Research - completed FY2017
 - Outlined group case studies
 - Conducted member interviews
 - Re-segmented markets
- Stage 2: Product Strategy – completed FY2017
 - Defined platform elements/developed positioning statement
 - Identified marketing mix
- Stage 3: Product Execution – FY2018
 - Develop collateral
 - Develop storylines for group successes
 - Develop project support materials (templates, policies, etc.)

The positioning statement being supported in the Platform Strategy is:

*For individuals striving to set their organization apart and achieve their market goals in their particular wireless industry, **who** need an ideal setting for incubating and advancing new potentially disruptive technologies, specifications or guidelines, **the Wireless Innovation Forum is** a member driven, standards development organization **that** brings together groups of leading organizations from across multiple market segments around the world and at all levels of the wireless value chain to collaborate in advocating for the innovative use of spectrum and advancing radio technologies that support essential or critical communications worldwide.*

***Unlike** other group collaboration organizations that are focused on lobbying for a specific segment of the wireless market, **the Forum will** act as an honest broker in advancing technology supporting an ecosystem that spans multiple markets and bring you together with other thought leaders in a multi-stakeholder community to create highly recognized reports, specifications and recommendations.*

***Also unlike** other standards bodies focused on supporting the wireless market, **the Forum is** agile, providing a venue for thought leaders to quickly build an ecosystem and rapidly advance projects under a proven development model that can be tailored to your specific needs and under IPR terms aligned with Industry best practices.*

Additional elements of the platform strategy to be executed in FY2018 are outlined below.

7.1.1 Continued Product Execution

Per the Platform Strategy, Forum staff will work to complete the following in FY2018:

- The Forum will evaluate staff required to support the commercialization framework and make adjustments as required to meet member needs.
- Forum Staff will work with the Board of Director's Governance Committee to review relevant policies and make associated recommendations to the Board.
- Forum staff will strengthen the member experience by providing tools instructional webinar(s) and reference materials
- Forum staff will support the ATC in new project creation by preparing promotional literature and materials for use
- To better target readers (member and non-member) and increase email open and click through rates, Forum staff will perform a database scrub and segmentation

7.1.2 Marketing Strategy

For FY2018, Forum staff will focus on developing promotional materials and executing a marketing mix that will most effectively and efficiently promote the Forum. A detailed marketing plan and budget supporting this strategy will be developed in the first Quarter and presented to the Board for approval in the October 2017 Board meeting.

7.1.3 Member Retention

Both new member marketing and current member retention are priority aspects in generating revenue. With the Forum's diverse and growing market segments (Spectrum Sharing, SCA, etc.) the audiences are quite different for each segment. As such, staff will produce separate promotion materials for each committee audience detailing outputs, benefits to members, current members specific to this group, etc. In addition, staff will update the membership benefits page to better reflect and highlight current benefits.

In addition, staff will personally contact member organizations that are forecasted at below 100% retention confidence to discuss what can be done to increase their satisfaction with their membership.

Also important to member retention is member onboarding. Forum staff will refine our onboarding procedure to welcome our members and train them on the groups collaboration site. Tools will include scheduled emails, training videos and supporting documentation. Staff will also update the messaging in our renewal communications to better encourage retention.

7.1.4 Grow the SSC

For FY2018 staff will develop a plan to grow the SSC though exploring potential memberships with members of related groups such as the CBRS Alliance. A communications plan for this will be developed and integrated into the platform strategy, using the products created in that project to support this objective.

7.1.5 Grow the CC SCA

In FY2018 staff will support growing the CC SCA by producing a marketing plan to promote the group's rebranding as outlined in 4.2.1. Staff will promote and support the SDR Standards and Technologies workshop and other outreach to encourage new membership as a result of the rebranding.

7.2 Expanding Accreditation Services

Staff will work to develop and implement the business models necessary to support accreditation services required by the Forum's membership as standards evolve. Such models will include flow and transfer the information required to manage the procedures of the accreditation services, such as: providing access to application materials and requirements; receiving application materials and maintaining database of applicants; maintaining schedule of re-accreditations needed; sending re-accreditation notices as needed.

7.3 Support for Strategic Planning

Staff will support the Board in the strategic planning process. This includes providing inputs to the planning committee as requested in areas such as:

- Organizational metrics (membership data, meeting data, finance, performance)
- Market analysis
- Inputs from members (surveys, interviews)
- Entrance and Exit interviews

Staff will work with the planning committee to facilitate the strategic planning process and provide a framework for plan delivery.

7.4 *Member Services and Group Support*

7.4.1 Project Support

Forum staff will support each steering group in the establishment and maintenance of project roadmaps, including identifying and presenting a “watch list” of strategic issues that must be evaluated and tracked to each steering group on a monthly basis. Staff will also collect additional data pertaining to each watch list issue, as required for follow up by the steering groups.

The Forum’s staff will work with Forum leadership to provide the facilities, infrastructure and services necessary for the members of the Forum’s standing Committees to collaborate as required to achieve the objectives stated in this operations plan. Specific services defined for FY2018 as necessary in achieving the high level goals comes are:

- Remote Collaboration Services. Much of the work of the Forum’s members is done using electronic utilizing the following tools provided by the Forum:
 - Webconferencing: A Go-To-Meeting account has been established for each committee. In addition, the Forum maintains a Go To Webinar account which can be used to host online workshops as required.
 - Online Communities: A collaboration area has been established for each work group, task group and special interest group on the Forum’s “Groups Portal” (<http://workspace.winnforum.org>). Each collaboration area can host multiple project specific file libraries and list servers.

Forum staff will support its members in making use of these services as required, including supporting group leaders in maintaining portal communities, scheduling and hosting web meetings, and organizing workshops.

- Face to Face Meeting and Event Services. The Forum will provide complete meeting and event services as required, including planning, registration management, site selection and facilities management, speaker management and agenda/program development for ad-hoc project meetings, committee meetings, workshops and conferences. Where possible, meetings will be hosted at the Forum’s offices in Reston, Virginia or at member facilities.

Staff will create and maintain the supporting communication vehicles for the events including web presence and print publication as well as promotion through press releases, email campaigns, social media and sell sheet distribution when applicable.

- Project Facilitation and Management Services. Forum staff will provide services throughout the lifecycle of member projects as follows:
 - Project Initiation, including supporting the development of project proposals

- Project Support, including schedule and budget management, tracking risks, soliciting contributions, following up on action items with volunteers and reporting
- Editorial services, including graphics design, to ensure project reports, recommendations and specifications have a professional look and feel
- Document Advancement and Electronic Balloting

7.4.2 Project Promotion and Committee Brand Management

Forum staff will support all three committees in outreach activities to grow participation and gain new members. Support items include:

- Maintaining an active external web page for each committee highlighting work products and committee goals
- Press release announcement of approved projects and final work products
- Social media and email campaigns to inform the community of progress and grow participation
- Hosting webinars providing a tutorial review of relevant work products and printing these webinars on You Tube
- Developing and editorial pitch when appropriate to promote activities and results.
- Print materials for distribution at partner conferences and events to include sell sheet and media packet.
- Publicize rebranding of CC SCA (see 4.2.1) including announcement campaign with press release and social media
- Support in revision of Top Ten Most Wanted Wireless Innovations, including document design, edit and publicity campaign

In providing these services, Forum staff will leverage the WInnForum Standards logo to establish a brand extension for each committee where required.

In addition, staff will undertake an ongoing review of the Forum's communication vehicles to ensure a dynamic and efficient response to member needs and opportunities for member promotion using these vehicles, such as product announcements, event announcements, etc.

7.4.3 Daily News Feed

Feedback provided by members in satisfaction surveys and one on one interviews indicates that the daily news feed provided by the Forum is a key value provided by the Forum and so as a part of our member retention strategy, Forum staff will continue this service in FY2018 as well as

explore ways to expand the value, such as, for example, including one banner ad per week (additional revenue) by sponsor.

7.5 Conference Management and Promotion

High Level Objectives Supported:

- Brand the WInnForum as the Preferred Venue for the International Spectrum Sharing Community
- Improve Regional Support
- Grow Revenue

The US and European Conferences act as primary vehicles for the Forum's members to network with the community and gain insight into current trends in SDR, CR and DSA technology. These conferences are a key element of the Forum's brand, and so Forum staff will work to strengthen both the conference programs and participation. All conference content is to be largely driven by the Forum's individual committees, Forum staff will work to encourage the committees to participate and develop the content.

Positioning of the Forum's conferences shall remain as follows:

FOR equipment manufacturers, system integrators, technology providers, their customers, government authorities and researchers, **WHO** seek to facilitate the development and adoption of technologies and standards supporting the innovative utilization of spectrum and the development of wireless communications systems. WInnComm **IS THE** Conference **THAT** provides a venue for facilitating discussion between stakeholders to establish or expand ecosystems in the wireless communications market, define and promote interoperability standards supporting those ecosystems, and educate regulators on associated issues. **UNLIKE** other conferences that have a more academic or large system trade show focus, WInnComm is focused on information exchanges between stakeholders to report and discuss the development, adoption, transfer and commercialization of technologies, standards, regulations and certification processes, and demonstrating new technologies that enhance value, reduce total life cost of ownership and allow timely delivery of products and services.

Plans for each conference are as follows:

7.5.1 WInnComm 2017

WInnComm 2017 will be held in 13 to 17 November 2017 in La Jolla, California. Important dates for this conference in FY2018 are:

- Paper Abstracts Due: **10 July 2017**
- Abstract Acceptance: **31 July 2017**
- Tutorial Submissions due: **14 August 2017**
- Program Announced: 15 August 2017

- Final Papers and Presentations Due: **30 October 2017**

Forum staff provides administrative support to the technical program committee in defining conference and workshop topics, which are to be largely driven by the committees, issuing the call for proposals, collecting and reviewing abstracts, reviewing papers and setting the program.

All operations of conference events from pre-conference services such as registration and exhibits management to onsite services will be conducted in to the highest degree of professionalism and membership service. Staff will look to maximize the meeting experience for all attendees while focusing on efficiency and economies.

Satisfaction surveys by attendees will be used to determine attendee satisfaction, perceived problems, and potential improvements. The survey results will be used to guide plans for future conferences.

Forum staff will continue to place a priority on promoting the conference in order to increase attendance as well as brand recognition. The event web page, which is the primary public presence for the event will be updated frequently to ensure that it is dynamic, as well as reviewed often for accuracy and brand consistency. The web page and event will be promoted through press releases, email distribution and social media mentions. All communications vehicles will carry the same consistent branding presented on the web page. In addition, Forum staff will design and produce event proceedings for the conference, which will be distributed in an online store. The availability of the proceedings in a public marketplace will help advance the Forum's brand and help establish the Forum as a leader in producing technical publications.

7.5.2 WInnComm-Europe 2018

WInnComm-Europe 2018 is again planned to be co-located with a related event, as was pioneered in 2017 with ICMCIS; final determination for co-location is pending. Important dates for this conference in FY2018 are to be scheduled as follows, after confirmation of the co-located event:

- Abstracts due for presentation proposals (papers optional; no peer review): 4 months before conference dates
- Paper accepted notification: 3 months before conference dates
- Final Camera Ready Papers and Presentations due: 3 weeks before conference dates

Forum staff provides administrative support to the technical program committee in defining conference and workshop topics, which are to be largely driven by the committees, issuing the call for proposals, collecting and reviewing abstracts, reviewing papers and setting the program.

Operations of conference events from pre-conference services such as logistics setup and exhibits management will be conducted in to the highest degree of professionalism and membership service. Registration will be held in conjunction with the co-located event and

onsite support will be provided by the co-located event staff. Forum staff will look to maximize the meeting experience for all attendees while focusing on efficiency and economies.

Satisfaction surveys by attendees will be used to determine attendee satisfaction, perceived problems, and potential improvements. The survey results will be used to guide plans for future conferences.

Forum staff will continue to place a priority on promoting the conference in order to increase attendance as well as brand recognition. The event web page, which is the primary public presence for the event will be updated frequently to ensure that it is dynamic, as well as reviewed often for accuracy and brand consistency. The web page and event will be promoted through press releases, email distribution and social media mentions. All communications vehicles will carry the same consistent branding presented on the web page. In addition, Forum staff will design and produce event proceedings for the conference, which will be distributed online by the same method used for WInnComm 2016, which was very successful.

In FY2013, the Forum reduced printing costs substantially by omitting a printed conference schedule for the US event and communicating to conference attendees that the show schedule and communication would be primarily electronic. This was received very favorably. Staff will continue to pursue this option for the European conference as well as explore avenues to cut cost without sacrificing effective communication and promotion.

7.6 Awards

The Forum will launch the 2017 Awards program in July, with nominations pursued in emails and on the web site. Finalists will be announced in September 2017, and will be encouraged to attend the November conference where winners will be announced and receive their awards

8 Other Corporate Administration

8.1 Annual Meeting of the Members

The Annual Meeting of the Members, as described in the Forum [Bylaws](#) will be held in conjunction with WInnComm 2017 in San Diego.

8.2 Corporate Filings

The Forum will continue to evaluate and improve internal office functions related to financial controls and reporting, archival storage of documents, and membership initiation and renewal. Finance and Accounting Procedures will be updated in Q1 FY2018 to reflect modifications of the membership renewal process as well as the process for managing Value Added Tax in our European Events.

In addition, the Forum shall ensure filings as follows:

- 990 filing with the IRS – 15 November 2017
- California Tax Exempt Return – 15 November 2017
- Canadian Information Return – 15 November 2017
- Canadian Extra-Provincial Annual Report – 2 January 2018
- 1099s to recipients – 31 January 2018
- 1099 and 990s to IRS – 28 February 2018
- Foreign Bank Account Report Form – 30 June 2018
- Fairfax County, VA Business, Professional, Occupational License-01 March 2018
- Fairfax County, VA Personal Property Tax-01 May 2018
- Virginia Corporate Commission Report-30 April 2018

8.3 Insurance

In addition, the Forum shall perform an insurance review (D&O, E&O, Liability, etc.) to be completed to be completed in advance of the renewal date.

- Error and Omissions plus Certification Insurance: April 2018
- General Liability Insurance: August 2017
- Directors and Officers Insurance: January 2018

In addition, the Forum will secure cancellation insurance, as appropriate, for each major event.

8.4 FY2019 Planning

The FY2019 Operation Plan will be developed on the following schedule:

- Board Approval of High Level Goals for FY2019 – 8 March 2018
- High Level Goals and Ops Plan Process Presented to Group Leaders – 22 Mar 2018
- Draft Budget Presented to the Finance Committee – 1 May 2018
- Draft Plan Submitted to Officers – 28 May 2018
- Final Draft Approved by Forum Chair and CEO – 4 June 20178

The final plan will be presented to the Board of Directors for their approval during the 14 June 2018 Board Meeting, and will be submitted to the membership for final approval immediately thereafter.