FY2023 Operations Plan

Version 1.0.0
19 July 2022

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1 Introduction – The Wireless Innovation Forum FY2023 Objectives

The Wireless Innovation Forum (WInnForum) Board of Directors has established the following six items as high-level objectives for the Forum for the period from July 1, 2022 through June 30, 2023 in executing on the WInnForum's Strategic Plan[1]:

1.1 Brand the WInnForum as the Preferred Venue for collaborative technical exchanges on innovative solutions for wireless systems

The WInnForum will continue to execute on its "commercialization strategy", leveraging the technical expertise of its members and its reputation as an honest broker of technical information with regulatory bodies to identify and support at least one new market or new band relevant to the Forum's mission, form regional and international member driven projects supporting that market, and initiate at least one new roadmap driven project advancing the Forum's Advocacy Agenda and the Top 10 Most Wanted Wireless Innovations list.

1.2 Position the WInnForum as the Preferred Neutral Venue for the International Spectrum Sharing Community

The WInnForum will work to maintain and strengthen its success in the Spectrum Sharing Committee (SSC), Regulatory Advisory Committee (RAC), and 6GHz Committee to further foster community and ensure continued success as follows:

a. Leveraging the experience in the CBRS, position the WInnForum as the venue where licensed, unlicensed, commercial, government and civil communities can collaborate on how to share spectrum.

b. Broaden focus of standards, processes and regulatory frameworks developed for the Citizens Broadband Radio Service (CBRS, FCC Part 96) to other frequency bands.

c. Identify international shared-spectrum opportunities and determine whether and how the WInnForum can participate,

d. For those international shared-spectrum opportunities that WInnForum decides to participate in, work with stakeholders to determine how to position the WInnForum to offer maximum benefit.

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[1] https://www.wirelessinnovation.org/assets/documents/wireless_innovation_forum_2018_to_2022_strat_plan_-_final.pdf

1.3 Drive Harmonization of Mission Critical Communications Standards

The WInnForum will focus on international harmonization of mission critical communications standards through collaboration with programs and standards development organizations that are chartered to define software defined systems standards. The WInnForum will participate in the definition and integration of frameworks and architectural approaches as the basis of next generation of software defined systems standards. The WInnForum will lead the harmonization and advancement of existing and divergent software defined systems standards.

1.4 Execute on Test and Certification Strategies for WInnForum Standards

Each Committee will continue to develop the test protocols and procedures necessary to certify equipment and services based on the Committee's standards, and to accredit certification labs to perform the necessary compliance testing. Such protocols and procedures will be developed focusing on both on the present and anticipated future requirements. In addition, the Committees will collaborate to harmonize test protocols and procedures across committees to the greatest extent possible.

This document presents specific plans for achieving these high-level objectives in separate sections dedicated to the FY2023 Meeting Plan, and the respective work plans of the Advanced Technologies Committee, the Software Defined Systems Committee, the Spectrum Sharing Committee, The 6 GHz 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

2.1 FY2023 Organizational Structure

The FY2023 Organizational Structure of the Wireless Innovation Forum is presented in Figure 1. The Forum is organized around four standing committees, whose responsibilities are summarized as follows:

- The role of the 6 GHz Band Multi-stakeholder Committee is to serve as an industry body to study and specify sharing arrangements in spectrum designated for unlicensed operation within all or part of the 6 GHz band (5925-7125 MHz). The Committee will provide technical input to inform the FCC's 6 GHz rulemaking and will facilitate the interpretation and implementation of the rulemaking that allows industry and regulators to collaborate on implementation of a common, efficient and well-functioning 6 GHz ecosystem.

  The approach to the committee's work will emphasize the technical aspects of sharing while simplifying interfaces and requirements. This is done to advance innovative and competitive sharing approaches and to increase deployment speed of AFC systems.

- 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.

- Software Defined Systems Committee (SDS): support the harmonization of SDS standards at the international level for the mutual benefits of all stakeholders to include:

    o Defining an industry driven SDS evolution roadmap for the international community

    o Profiling SDS specifications and related APIs to define internationally accepted variants that are hosted by the Forum

    o Developing extensions to SDS standards that address any gaps between the defined SDS evolution roadmap and Forum accepted SDS specification variants

    o Providing implementation and certification guides, tools etc. easing implementation and supporting proliferation

    o 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:

    o Detailing common industry and government functionality and architecture for Spectrum Access Systems (SAS), sensors, and devices

    o Interoperability requirements and protocol definition to allow for open competitive and well-functioning systems

    o 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

- o Details of requirements, processes, and methods for protection of incumbent users as required by the spectrum rules

- o 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 the WInnForum 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.
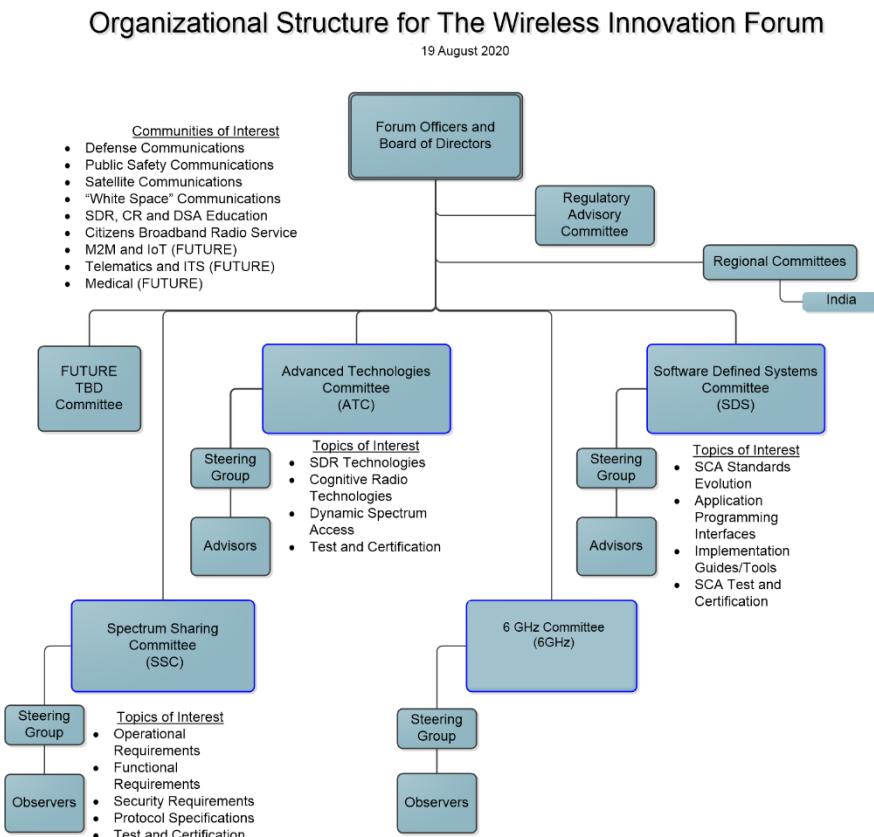
Figure 1: Wireless Innovation Forum FY2023 Organizational Structure

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 CY2022 is provided in Table 1.

Table 1: CY2022 Board of Directors of The Software Defined Radio Forum Inc. The positions of Chief Marketing Officer and Academic Representative are currently vacant.

Position	Candidate	Organization
Chair of the Board of Directors	Manuel Uhm	AMD
Forum Chair/President	John Glossner	Optimum Semiconductor Technologies
Forum Vice-Chair/ Vice President	Mark Gibson	CommScope
Secretary	Naotaka Sato	Sony Group
Chief Financial Officer/Treasurer	Ken Dingman	L3Harris
Chief Technology Officer	Andy Clegg	Google
Chief Marketing Officer	Richard Bernhardt	WISPA
Chief Regulatory Officer	Prakash Moorut	Shure
Class Directors		
Large Company	Paul Challoner	Ericsson
Medium Company	Alberto Quintana	Indra
Small Company	Pierre Jean Muller	RED Technologies
Government/Non Profit	Dawn Szelc	MITRE
Academic	Vacant	Vacant
At Large Directors		
General	Marc Adrat	Fraunhofer
General	Claude Belisle	Viavi
General	Jean-Philippe Delehaye	DGA
General	David Hagood	Cynosure
General	David Gurney	Motorola Solutions
General	Doug Knisely	Qualcomm
General	Raghavan Muralidharan	Tata Advanced Systems
General	Eric Nicollet	Thales
General	Max Solondz	Verizon

2.2   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 FY2023 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 FY2023 are as follows:

1) Virtual Inc. – 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 FY2023 can be found in Sections 8 and 9 of this plan.

3 6 GHz Committee (6 GHz) (Chair: Mark Gibson, *CommScope)*

3.1 Charter and Structure

The 6 GHz Committee (6 GHz) is a committee of The Wireless Innovation Forum that will serve as an industry body to study and specify sharing arrangements in spectrum designated for unlicensed operation within all or part of the 6 GHz band (5925-7125 MHz). The Committee will provide technical input to inform the FCC's 6 GHz regulatory activities and will facilitate the interpretation and implementation of the rules that allow industry and regulators to collaborate on implementation of a common, efficient and well-functioning 6 GHz ecosystem.
The activities to be conducted by the Committee include:

- Defining:
    o Interaction with FCC databases
    o Application of Interference Protection Criteria
    o Propagation Modeling
    o Spectrum Availability Determination
- Developing a Security Threat Assessment
- Creating an AFC Functional Specification
- Creating a Test & Certification framework

The approach to the committee's work will emphasize the technical aspects of sharing while simplifying interfaces and requirements. This is done to advance innovative and competitive sharing approaches and to increase deployment speed of AFC systems.

The Committee is ultimately a standards and technical implementation forum for industry stakeholders and developers of the spectrum-sharing technologies. The Committee will not address policy-making or liability management, but may occasionally make formal technical recommendations to the FCC or other regulatory bodies following the Forum's standard policies and procedures.

The participants of this Committee will include, but not be limited to, the following:
- Developers and operators of wireless equipment and devices
- Developers and operators of spectrum sharing systems
- Operators and service providers interested in deploying in the spectrum
- Suppliers of systems and components operating in this spectrum
- General users of spectrum outside of main providers
- Policy makers, academics, and researchers

Liaisons from other standards groups with which joint work is desired or necessary.

The organizational structure is shown below:

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                    │      6 GHz        │
                    │  Steering Group   │
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│ Specification WG │ │              │ │ Certification WG │
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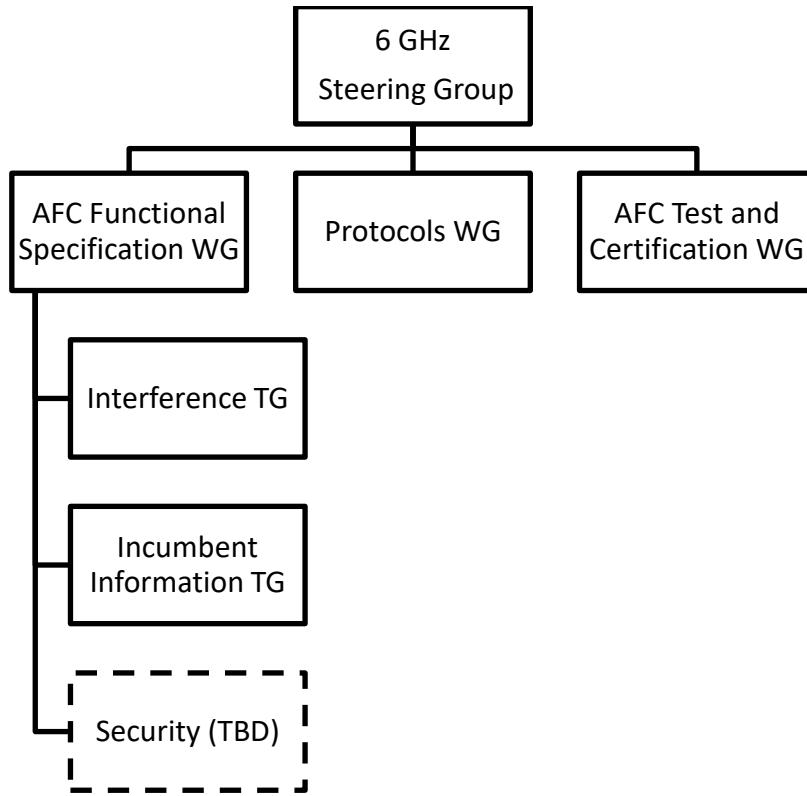
3.1.1 Steering Group

3.1.1.1 Overview

The steering group is 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. The main activities that the steering group is engaged in should include:

- Defining the necessary subcommittees and adding new ones as required
- Prioritization of work activities in the subcommittees
- Setting objectives and desired outcome from each subcommittee
- Approving activity scope and approach for each subcommittee
- Approving the recommendations of each subcommittee
- Recommending increase of scope towards a formal standard if so determined
- Managing the committee's annual operating budget and presenting to the Board of Directors for approval
- Approving Liaison Statements to other SDOs (e.g., Wi-Fi Alliance)

3.1.1.2 Membership and Rights

Membership of the Steering Group is comprised of the following:

- Committed AFC developers and operators (engaged in the development of the system and intend on participating in this market)
- Committed 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)

Membership in the steering group is by organization and all Steering Group members have voting rights at the committee level (1 vote per organization). Members of the Steering Group must be full Forum members or Trial members and must supply a letter of commitment prior to joining the group. Continued membership requires that an organization be represented at 3 of 5 Steering Group meetings on a rolling window basis.

Steering Group members include:

- AT&T
- Baylor University
- CableLabs
- Charter
- Cisco Systems
- Comcast
- CommScope
- Ericsson
- Federated Wireless
- Google
- HPE/Aruba
- iPosi
- Midco
- Motorola Solutions
- Nokia
- Pathfinder Wireless
- Qualcomm
- RED Technologies
- Shure, Inc.
- Sony Group Corporation
- UWB Alliance
- WISPA

3.1.1.3 Observers

The Steering Group will also elect to include observers necessary for the full operations and support of the system. They include, but are not limited to, the following:
- Regulators that are engaged in the development of this system (i.e., FCC, NTIA, etc.)
- Researchers and academics with special knowledge and contribution

- Operators, users, and equipment providers with no declared intent to use the system but with interest in the topic
- Other relevant industry associations

Observers have no voting rights and will be invited and approved by the Steering Group members.

3.1.1.4 Officers

The Steering Group will elect, on an annual basis, a chair and vice chair, or alternatively 2 co-chairs, with duties and responsibilities as follows:

a. The Chair(s) report to the Chair of the Forum for day-to-day operations.

b. The Chair(s) manage the balloting process at the Committee Level.

c. The Chair(s) oversee the meetings to ensure collaboration and manage contention.

d. The Chair(s) typically don't vote on Committee matters unless there is a tie vote.

e. The Chair(s) ensure compliance with Forum directives and follow-up on action items.

Election of chairs will be managed by Forum Staff following the Forum's standard policies and procedures. As per Forum policy, at least one chair will be invited to represent the committee as a member of the Wireless Innovation Forum Board of Directors.

The Chair may appoint from time to time, as required, other committee officers to include secretary or treasurer.

3.1.2 Subcommittee/Working Group Operations and Procedures

3.1.2.1 Charter

Subcommittees/working groups will be formed at the direction of the Steering Group. In doing so, the Steering Group will provide a charter defining the high-level mission and directives for each group. Initial working groups are defined in sections 2 and 3 of this charter. Additional subcommittees/work groups may be proposed to the steering group by members of the committee.

3.1.2.2 Membership

Membership in each working group shall be open to all Forum members, as per Policy 004 (http://www.wirelessinnovation.org/assets/documents/poli-Member_Benefits_Policy.pdf). Participation in a working group does not require membership in the Committee Steering Group. Membership in the group shall be maintained by an organization attending at least 3 of 5 meetings.

From time to time, the members of the working group may request participation by a non-member subject matter expert who is considered critical to the success of their project. Such requests will be reviewed and approved by the Steering group following Policy 014 (http://www.wirelessinnovation.org/assets/documents/pol%20-%20sdrf%20policy%20on%20p

olicy%20-%20policy%20-%20participation%20by%20non-members%20-%20revision%202%201.pdf)

3.1.2.3 Projects

Each project performed within a subcommittee/work group will be initiated through the creation of a detailed project proposal defining the project's objectives, scope, deliverables and schedule, and these project proposals will be approved by the steering group following Forum Policy 002 (http://www.wirelessinnovation.org/Project_Approval_Process). Proposals must support the Work Group's charter and the annual operations objectives established by the Steering Group.

3.1.2.4 Subcommittee Operating Procedures

Each subcommittee shall elect a chair from among its membership, and said chair will work to facilitate discussions and manage meetings. Appointment of the Chair will be ratified by the Steering Group, and the Steering Group may call for a new election should the sitting work group chair fail to advance the project.

Development of work products shall be contribution based, with the Chair soliciting contributions to be discussed at least one week in advance of each meeting. Meetings will be held by teleconference or face-to-face as required, although the Chair may designate that certain discussions be held via email using the subcommittee's list server.

Adoption of a contribution, in whole or in part, shall be by consensus. Once all contributions have been considered and the final work product complete, the work product shall be finalized by Forum staff and submitted to the Steering Group for ratification.

3.1.3 Document Approval

Approval of documents shall follow Forum Policy 001 (http://www.wirelessinnovation.org/page/Document_Approval_Process). Once work is completed, a document will be sent to the Steering Group for ratification. Once ratified by the Steering Group, the document will be submitted to the Chair of the Forum for formal adoption.

3.1.4 Partner Organizations

The Committee anticipates establishing partnerships with other organizations to advance their objectives. The Committee has executed liaison agreements with the Wi-Fi Alliance. Other partnerships envisioned include 3GPP and the IEEE 802 Committee. Establishment of these partnerships will be upon the direction of the Steering Group and will follow Forum Policy 003 (http://www.wirelessinnovation.org/assets/documents/poli-Document_Sharing_Policy.pdf).

3.2 FY2022 Objectives

We are aware that work on AFC requirements is also being managed within other stakeholder groups such as the Wi-Fi Alliance. The primary objectives of the 6 GHz Committee for this year are listed below:

- Complete the AFC Functional Specification.

- Develop an AFC Test and Certification Specification.

- Identify Security needs and develop specifications as necessary.

- Continue to work with the Wi-Fi Alliance under the liaison agreement to minimize duplication of efforts and to support the Multi-stakeholder Group as necessary.

- Collaborate on the development of requirements and procedures regarding interference reporting and remediation.

Additional objectives may be identified as the collaboration among stakeholder groups proceeds.

3.3 FY2022 Project Plan

The 6 GHz Committee has completed a high-level project plan Nonetheless, we have identified the following tasks that should be completed:

- Application of propagation models
- Model input parameters
- Passive reflector antenna patterns
- 2D Fixed Service Patterns
- Determination of spectrum availability
- Support for mobility (TBD)
- ULS function & operation
- Data recommendations
- Canada & Mexico data (TBD)
- Security (AFC system authentication)
- AFC Test Framework
- AFC Test Procedures
- AFC Interface Gap Analysis
- AFC Protocols for 3GPP
- 3GPP Device Test Case

AFC Functional Specification Project (Roll Up)

Task	Dates
AFC Functional Specification Project (Roll Up)	Mon 10/5/20 - Mon 8/29/22
Interference TG Work Items	Mon 10/5/20 - Fri 6/10/22
Incumbent Information TG Work Items	Mon 10/5/20 - Thu 5/5/22
Develop AFC Functional Requirements Specification Document (TS-1014)	Fri 2/12/21 - Mon 8/29/22
✔V1.0.0	Fri 2/12/21 - Thu 12/16/21
V1.1	Fri 8/20/21 - Mon 5/23/22
V1.2	Thu 3/3/22 - Mon 8/29/22
Develop Suplemental Data Respositories (TS-5008)	Wed 1/12/22 - Mon 5/23/22

Task	Dates
Protocol Enhancements (TS-3005 and TS-3007)	Thu 11/5/20 - Fri 8/26/22

Task	Dates
AFC System Test and Certification Project Roll Up	Wed 5/12/21 - Wed 10/12/22
✔Develop Test Strategy	Wed 5/12/21 - Tue 2/1/22
Develop Test Harness	Wed 2/2/22 - Tue 9/13/22
Traceability Matrix and Gap Analysis on known System Under Test Plans	Wed 2/2/22 - Wed 9/14/22
Develop Test Specification and Test Vectors	Thu 5/12/22 - Wed 10/12/22
Develop ATL specification (TS-5009)	Wed 2/2/22 - Thu 6/9/22

20 July 2022

4 Advanced Technologies Committee (ATC) (Chair: John Glossner, *Optimum Semiconductor*)

4.1 Charter and Structure

The Advanced Technology Committee (ATC) is led by a Steering Group comprised of the Forum's Executive Committee and the Forum's Committee chairs. 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. The ATC will work with the WInnForum's members and external industry experts to identify new market areas where a community of practitioners could be gathered to initiate new projects.

The ATC has the responsibility to maintain and update, when appropriate, two Forum documents: the Forum's Top 10 Most Wanted Wireless Innovations list and the Advocacy Agenda.

The Advanced Technology Committee has established the following committee objectives for FY2023 to support the Forum's High Level Objectives:

4.1.1 Brand the WInnForum as the Preferred Venue for technical collaborative exchanges on innovative solutions for wireless systems

The WInnForum's Advanced Technology Committee (ATC) will execute on the "platform strategy" defined in FY2016 exploring potential new markets relevant to the Forum's mission. In FY2023, the ATC will work with the WInnForum's members and external industry experts to identify new market areas where a community of practitioners could be gathered to initiate at least one new project.

The ATC and 6 GHz committee will also work on advancing and formalizing partnerships with end user community in existing and new market areas.

 WInnForum's ATC will seek appropriate relationships with government and quasi- governmental groups to find members of the academic community undertaking projects (proposed or underway) which embrace the technology objectives of the WInnForum. WInnForum through ATC may reach-out to such project teams to see if a good fit may be present for a combined academic/WInnForum project. Such projects may include technical white papers and presentations, combined effort projects, or such materials and work products as is appropriate for both the academic entity and WInnForum.

The CTO and CMO will increase outreach to the academic community through, for example, attendance at relevant academic conferences, direct communication with academic groups, and awareness efforts among academic research funding agencies.

4.1.2 Position the WInnForum as the Preferred Venue for the International Spectrum Sharing Community

The WInnForum will work to build on its success in forming and managing the Spectrum Sharing Committee (SSC) and 6GHz committee and strengthen those communities to ensure continued success. In addition, the WInnForum will undertake the following:

1) Identify opportunities for Informing Incumbent Capability (IIC) in any relevant band.
2) Define and execute a strategy for reaching out to the award managers of the NSF spectrum innovation center and offer opportunities for collaboration to the winning team.
3) Broaden focus of standards, processes and regulatory frameworks developed for the Citizens Broadband Radio Service (CBRS, FCC Part 96) to other frequency bands.
4) Leveraging the experience in the CBRS, position the WInnForum as the venue where licensed and unlicensed communities can collaborate on how to share spectrum.
5) Identify international shared-spectrum opportunities and determine whether and how the WInnForum can participate.
6) For those international shared-spectrum opportunities that WInnForum decides to participate in, work with stakeholders to determine how to position the WInnForum to offer maximum benefit.

4.1.3 Top 10, Advocacy Agenda, and Relevant Projects

The ATC will continue to maintain and update two of the Forum's documents, the 'Top 10 Most Wanted Wireless Innovations' and the 'Advocacy Agenda'.

In addition, the ATC will initiate a new project related to Spectrum Access in bands other than CBRS. The ATC will also seek input from the Forum membership and its Advisory Council, to initiate at least one additional new project.

4.2 FY2023 Project Plan

The following describes the projects the ATC is planning to undertake in FY2023. In addition to those described here, the ATC is planning to initiate at least one new project to be defined in collaboration of the Committee Chairs and its Advisory Council.

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

The Advanced Technology Committee (ATC) is responsible for identifying/consolidating the 10 most wanted innovations in terms of technology, regulations, or business practices as identified by the Forum members. The ATC Committee will seek input from the Software Defined Systems

Committee and the Spectrum Sharing Committee on the current listed innovations and members of the ATC will also be invited to submit contributions that could be promoted as new innovations.

The process that will be adopted by the Committee in FY2023 is as follows:

1) The Advanced Technology Committee (ATC) will seek input from the Software Defined Systems Committee, the Spectrum Sharing Committee, and the 6GHz Committee on the current listed innovations for its 2022 review of the Wireless Innovation Forum Top 10 Most Wanted Innovations.

2) Members of the ATC will also be invited to submit contributions that could be promoted as new innovations.

3) The ATC will review each innovation to determine if it should (1) remain unchanged; (2) be updated with newer information; (3) be deleted because no longer an issue; (4) be superseded with other more important innovations that are required to solve more important shortcomings.

4) A project of the Advanced Technologies Committee will be to publish a revision of the "Top 10 Most Wanted Wireless Innovations" list in FY2023.

4.2.2 Advocacy Agenda

The WInnForum's Advanced Technologies Committee will continue to maintain the Advocacy Agenda of the Forum and will coordinate activities with the Software Defined Systems Committee, the Spectrum Sharing Committee, and the 6GHz Committee as well as external stakeholders such as regulatory agencies, standards bodies, and other government agencies worldwide.

The process that will be adopted for updating the Advocacy Agenda in FY2023 is as follows:

1) The ATC Steering Group committee shall have a meeting agenda item as needed to discuss changes to the Advocacy Agenda.
2) The Chief Regulatory Officer is responsible for consolidating all Advocacy Agenda inputs from all Forum Committees. The procedure shall be as follows:
    a. 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.
    b. Any changes to the Advocacy Agenda shall be balloted at the subsequent ATC Steering Group Meeting
    c. In addition, the CRO shall maintain a consolidated Forum Advocacy Agenda proposed changes list based on inputs from all Forum committees.

4.2.3 Regulatory Advisory Committee

The Chief Regulatory Officer (CRO) is responsible for organizing regular Regulatory Advisory Committee meetings and recruiting advisors worldwide. The CRO will define the topics to be

covered at the meetings jointly with advisors and Forum members. Members and advisors will have opportunities to present their topics of interest to advance the objectives of the RAC.

Topics for FY2023 include spectrum sharing initiatives in various countries worldwide. There can also be contributions to relevant regulatory bodies to inform about the work the Forum is doing and also request information relevant to the RAC.

The objectives of the Regulatory Advisory Committee (RAC) are to:

- facilitate the exchange of knowledge on technical topics, not to advocate for one policy position or another.

- provide a venue for regulators, policy experts (advisors) and Forum members who have an interest in the development and deployment of advanced wireless technologies.

- foster Forum collaboration with the regulatory and public policy community.

- present an opportunity to enhance informal communications among the regulators and policy experts who are advisors.

- help Forum members better understand emerging regulatory trends across all ITU regions, and to help the advisors to understand emerging technologies that may impact, or be impacted by, the regulatory landscape.

4.2.4 Academic Outreach

The CTO and CMO will investigate increasing outreach to the academic community through relationships with government(s) and quasi- governmental groups, attendance at relevant academic conferences, direct communication with academic groups, and awareness efforts among academic research funding agencies.

Monitor spectrum sharing programs world-wide and engage with academics as appropriate to participate in discussions and/or projects.

4.2.5 ATC Staff Support

ATC will work with Forum staff to market the Forum by:

1) Promotion Package: Support staff in developing a promotion package.
2) Event Presence: Work with membership 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.
3) 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.

4.2.6 3100 - 3550 MHz Project Support

Work with NTIA to understand their plans for S3/IIC and support as appropriate based on input from member companies.

Monitor developments in the 3100-3450 MHz band and comment on relevant proceedings.

Work to understand the potential co-existence issues of 3450-3550 MHz operations on CBRS.

4.2.7 Drone Special Interest Group Support

The ATC will support the Drone Special Interest Group Steering in completing additional work products.

4.2.8 PASS Working Group IIC Support

The ATC will support the Passive and Active Spectrum Sharing in Radio Astronomy bands to demonstrate IIC capability at the Hat Creek RA facility.

5 Software Defined Systems Committee (SDS) (Chairs: Ken Dingman, L3*Harris* and Eric Nicollet, *Thales*)

This Plan supports the WInnForum High Level goals as defined in Section 1 of this document, with focus on "Drive Harmonization of Mission Critical Communications Standards" and "Execute on Test and Certification Strategies for WInnForum Standards"

5.1 Charter and Structure

The mission of the Software Defines Systems (SDS) Committee is to "oversee the evolution and adoption, at the international level, of SDS standards for the development of essential and mission critical wireless systems".

The SDS is comprised of 3 major organizational elements. A <u>Steering Group (SG)</u> that is responsible for coordinating the different activities within the SDS and ensuring that liaisons with the stakeholders and the Forum's Board of Directors are maintained. An <u>Advisory Council</u> 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 <u>Working Groups</u> that focus on identifying needs/issues and providing solutions, executing approved projects. For FY2023, there are two active Working Groups as follows:

- API Working Group
- SCA Evolution Working Group

The Tactical Communications Standards project is run directly from the Steering Group.

The structure of the SDS organization is provided in Figure 3 below in conjunction with the relationship of the SDS to other WINNF organizational elements. Steering Group Members include:
- A4ESSOR
- L3Harris Technologies
- Hitachi Kokusai Electric
- Indra
- Leonardo
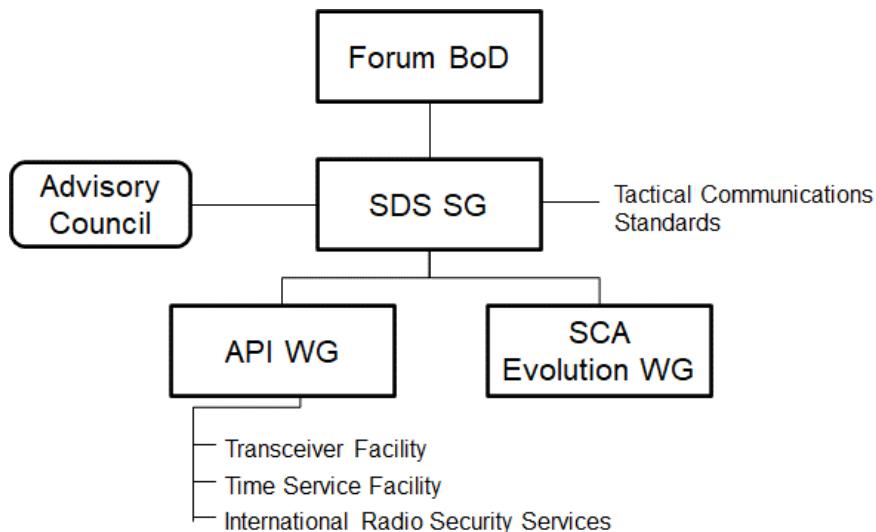- Collins Aerospace
- Rohde & Schwarz
- Thales

Figure 2: Software Defined Systems Committee Organizational Structure

5.2 FY2023 Objectives

5.2.1 Promote Software Defined Radio Standards and Technology World-wide

For the past few years, there has been a proliferation of Open Architecture solutions being formulated, such as FACE, MORA, VICTORY, SOSA, OMS, VITA 49, ECOA, Lavosar as well as the SCA. The Sensor Open Systems Architecture (SOSA™) has has emerged as the leading cross service OSA specification in the US DoD. The SDS Committee will work with SOSA to provide an avenue for international collaboration on the SOSA specification and promote already accepted tactical communications standards such as the SCA, Transceiver and Time Service Facilities within the SOSA framework. The objectives of the collaboration are to harmonize and optimize standards to reduce redundancy where possible and to accommodate the usage of multiple architecture frameworks when appropriate via integration strategies.

Support and advancement of the SCA will continue to be a focus of the committee. The Committee will continue to promote the SCA and provide ownership support for the SCA 2.2.2 Conformance Test Suite.

The SDS Committee will promote defined Facilities Services (such as the Transceiver and Time Service Facilities) to be referenced or included as a supported specification with other standards defining organizations such as JTNC, ESSOR and SOSA™.

5.2.2 Drive worldwide convergence to a common suite of SDR standards

These objectives support the goal for the WInnForum to maintain its position as the international venue for SCA standards development and harmonization and provide a venue for the International Community to collaborate on US Standards such as SOSA™ and the SCA.

5.2.2.1 Standard specifications development

The SDS committee will carry on past efforts to drive convergence towards an internationally supported suite of SCA-compatible SDR standards enabling reconfiguration of the products, portability of the developed applications and requisite support in the developed platforms.

The efforts are based on harmonization of existing standards developed at national or multinational levels, and development of new standards when needed. Leveraging the Advisors, the Committee will evaluate standards development and harmonization needs from US and International developments. The resultant could include updates to the SCA, development of a new WInnForum Standards and contributions to other standards organizations such as SOSA™

The SDS will continue its activities in standardizing and harmonizing standards for API's that abstract hardware implementations or provide common service capabilities through the development of WInnForum Facilities Services.

The SDS will support defining the solution for the COMMs modality in the SOSA™ Architecture with the goal of maximizing the portability of existing SCA based waveforms.

5.2.2.2 Standard specifications usage

As requested in the Advisory Council held in February 2022, the Committee will create a usage guide for the Transceiver and Time Service Facilities, highlighting differences between them and the specifications they were derived from (JTNC and ESSOR) and providing guidance on migrating an application from either the JTNC or ESSOR specification to the WInnForum Facility.

5.2.3 Standards certification

The committee will provide ownership support for the SCA 2.2.2 Conformance Test Suite. The Test Procedure documentation and applications with appropriate distribution rights will be hosted on the WInnForum SCA 2.2.2 Conformance Test site. For applications with restricted distribution rights the WInnForum will negotiate with the owners to reference their content from the WInnForum SCA 2.2.2 Conformance Test site. The SDS Committee will monitor the usage of the SCA 2.2.2 Conformance Test material making the results available to the JTNC as well as using that to determine if there is sufficient demand for the WInnForum to become an SCA 2.2.2 Accreditation or Certification Body. The committee will update the SCA 2.2.2 Conformance Test Suite as needed.

5.3 FY2023 Project Plans

5.3.1 Harmonized Audio Facility

1. **Objectives:** harmonizing, completing and improving the JTNC Audio Device and Vocoder Service APIs into a WInnForum Facility (= API + behavior + properties), based on multinational efforts and lessons learnt, namely encompassing the US and ESSOR Nations.
2. **Work Group:** API
3. **Project Lead:** Eric Nicollet (Thales)
4. **Milestones**
   - Plan Approved: July 2022
   - PIM completed: TBD
   - PSMs completed: TBD

5.3.2 WInnForum Facilities Migration Guide

5. **Objectives:** Provide guidance to users of transceiver and time service capabilities in migrating their implementations from existing JTNC or ESSOR APIs to the WInnForum Facility Services.
6. **Work Group:** API
7. **Project Lead:** Eric Nicollet (Thales)
8. **Milestones**
   - Plan Approved: Jan 2023
   - Project completed: TBD

5.3.3 Tactical Communications Standards[2]

1. **Objective:** This is a continuation of the project work in FY2022 which will result in a proposal and recommendation presenting what SDS Committee and JTNC SDR Standards can bring to SOSA™ for the mutual benefit of SOSA™ and WInnF SDS stakeholders. Activities that will be performed are

   - Develop a model that demonstrates how the specifications can be integrated to provide an architecture whereby SCA waveforms can provide a compliant communications modality solution within the SOSA Reference Architecture.

   - Based on the model, the project will provide additional technical content such as implementation models and prototypes of SCA applications functioning within a SOSA™ ecosystem and potential SCA optimizations that can benefit the SCA and SOSA™ communities.

   - Develop a Change Proposal (CP) that will recommend the incorporation of the SCA as a candidate enabling technology for the COMMS Modality of the SOSA™

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[2] Reorientation of the previous MRA (Modular Radio Architecture) project.

Technical Standard. As part of this the group may discuss the development of conformance test criteria for the integration strategy.

2. **Work Group:** none, the project task group directly reports to the Steering Group.
3. **Project Lead:** Kevin Richardson
4. **Milestones**
   - Finalize and submit SCA / SOSA integration model: Sep 2022
   - Prototype SCA Application submitted: Jan 2023
   - COMM Modality Specification recommendation submitted: May 2023

5.3.4 SOSA™ Support Activities

While not a specific project there will be ongoing activities to support the collaboration and advancement of WInnForum specifications in the SOSA™ Framework.

1) If SOSA™ starts an activity to update their Time Service, the WInnForum Time Service Facility will be proposed for inclusion within the SOSA™ Framework. This will require participation by a Time Service Facility SME in the SOSA™ Work Group meetings, including SOSA™ in person working meetings.

2) To monitor the SOSA™ activities that are relevant to the WInnForum and promote and advance the capabilities of the WInnForum, a representative of the SDS Committee Steering Group will participate in SOSA™ face to face meetings general meetings.

To support the execution of the activities defined in this plan, the SDS Committee plans to hold a committee level face to face meeting in the US and on one in Europe. Face to face working groups meetings will be held based on the needs of the individual working group.

6 Spectrum Sharing Committee (Chairs: Preston Marshall, *Google* and Richard Bernhardt, WISPA)

6.1 Charter and Structure

The Spectrum Sharing Committee is a major committee of the WInnForum that has been chartered by the WInnForum Board of Directors and is directed by the SSC Steering Group.

Over many years, SSC has focused on the creation, standardization, testing, protocols, and operations of the CBRS Band in the United States (3550-3700 MHz). While SSC is open to other Spectrum Sharing and flexibility options in the United States and globally, in recent years its focus has been as stated. SSC 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.

SSC continues to support technology neutral use and operation of the CBRS band. It is chartered to publish and maintain its own Roadmap as defined in the Committee Charter[3], and initiate projects supporting that charter focused on the development and advancement of spectrum

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[3]https://winnf.memberclicks.net/assets/SSC/spectrum%20sharing%20committee%20scope%20and%20operations%20-%20v1.0.0.pdf

sharing technologies required for interoperable systems in applicable bands of interest worldwide.

SSC has progressed in the prior FY to its Standards Release 2 of the Baseline Standards and maintenance operations. This means that it is advancing the use and utilization of spectrum sharing standards and protocols for CBRS while refining Release 1 (where applicable) and advancing new operations and uses on the Band pursuant to the WInnForum Roadmap and submitted industry and stakeholder requested changes.

As such, SSC maintains four Working Groups (WGs) including: WG1 (Requirements); WG3 (Protocol Specifications); WG4 (Test and Certification); and WG5 (Operations and also is inclusive of the prior standalone WG2, Security). These Working Groups each have task groups and adhoc groups which provide for specific needs of the Working Group.

Specifically, SSC has focused on Release 2 objectives including, maintenance and updating of the Baseline Standards and adding features and functions including but not limited to:

a) Creation and use, testing and communication, of features and functions compatibility exchange.

b) Use of Passive DAS in CBRS.

c) Flexible Grants and Use in CBRS.

d) Enhanced Antenna Patterns.

e) Secondary Market Technical Approaches.

f) Other items as submitted and qualified/approved for consideration.

Additional Ongoing Functionality: SSC continues its operations for the Band including (but not limited to: a) supporting Training Program Administrator (TPA) support for the training and certification of Certified Professional Installers (CPIs); b) maintenance and support of the CPI Database; c) support and administrative approval per the specification of Certificate support services companies; d) support and maintenance of antenna patterns database; e) support and maintenance of CBSD Test Labs process. Each of the above and others contributes to the ongoing support of the WInnForum Baseline Standards and the CBRS Band.

Previously, the SSC committee established certification programs for PKI Root of Trust CA (Certificate of Authority) operator vendors, CBSD Test Labs and Certified Professional Installer Training Program Administrators (TPAs) to facilitate the development of an ecosystem support the Release 1 specifications. In 2021 and 2022 the SCC worked to enable Release 2 certifications, including establishing a program allowing self-testing to claim conformance for features that do not impact Release 1 certifications, and working with the FCC to establish a model for permissive changes and re-certification for those things that do impact Release 1 certifications.

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.

Spectrum Sharing Multi-stakeholder Committee
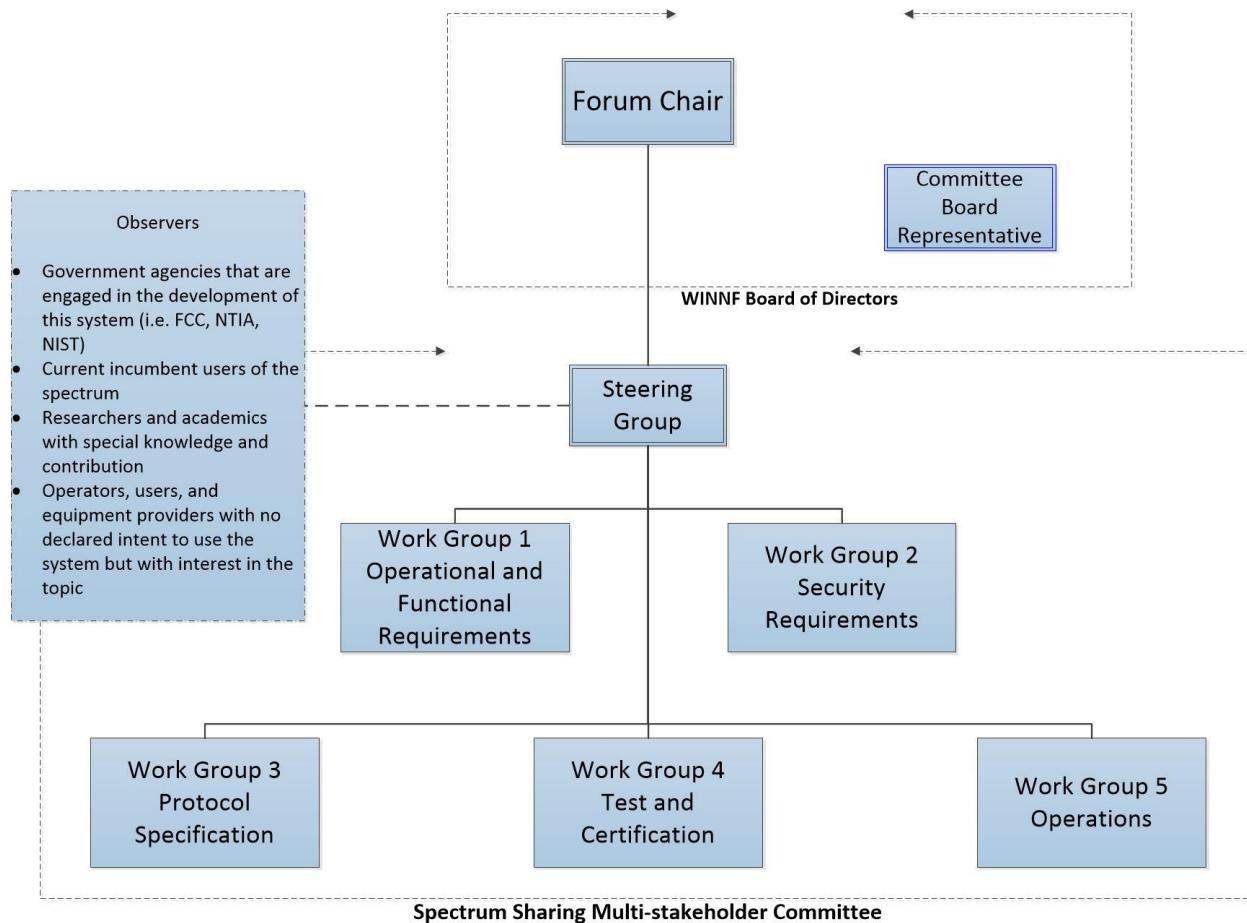
Steering Group: SSC is governed by its designated Steering Group. The SSC Steering Group is the designated body to formulate and create policy and direction for the SSC and its Work Groups. The SSC Steering Group also provides mid-stream guidance as needed on any issue related to the specifications and technical reports to be considered by the membership and generated within the SSC.

The Committee is led by the 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 (specific members listed below):

- 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 members companies currently include:

- Airspan
- Amdocs
- AT&T
- CableLabs
- Charter Communications
- Comcast
- CommScope
- CTIA
- DISH Network
- Ericsson
- Federated Wireless
- Google
- Motorola Solutions
- Nokia Corp.
- Optimum Semiconductor Technologies inc.
- Pathfinder Wireless
- Qualcomm
- RED Technologies
- Samsung
- Sony
- T-Mobile
- Verizon
- WISPA

The SSC 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 policymaking 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.

Ongoing Ask: SSC seeks input and contributions regarding features and functions to add or augment current operations in CBRS that are beneficial to the band and its use. The SSC Committee has an ongoing and open request for additional ideas, updates and materials which support technology neutral and continued diversification of the band.

6.2 FY 2023 Objectives

SSC continues to add to and adjust for additional functionality and operation under Release 2. Release 2 is focused on two types of additions or changes to functionality and capabilities (and potential changes in standards and protocols) which include: Regulatory Impacting (RI) where there may be an impact on a Part 96 or other FCC rule wherein the added or changed function would likely have some impact on current regulatory landscape and may require approval, authority or rules changes/modifications to current rules by the FCC; and Non-Regulatory Impacting (NRI) wherein the added or changed functionality or feature does not have a regulatory impact and does not require any change or propagation of new regulatory aspects.

During the past FY, most of the objectives of Release 2 functionality by SSC have focused on NRI wherein action taken is generally optional/conditional and does not require any type of regulatory approval, change or have regulatory impact.   During this FY, it is expected that the focus will continue on NRI but may include some RI based examination. For example, SSC may approach the following areas which may include NRI and RI impact:

1) Propagation Model Use and Application or Alternative Approaches.

2) Assignment of Move Frequencies for PALs – Temporary Reassignment of PAL frequencies.

3) Active DAS and other radio delivery approaches.

4) Interference mitigation and co-existence approaches with adjacent bands.

5) Co-existence within the Band.

6) Additional Release 2 functions and features.

Additional objectives for FY 2022-2023:

The SSC will continue to offer Change Requests and updates to applicable Release 1 Baseline Standards as become necessary or beneficial to adjust Release 1 for ease of use, updates, erroneous or dated information, and other factors.   The SSC will undertake both changes to Release 1 (Baseline Standards) as well as creation of Release 2 Specifications, Technical Reports, and updates and other documentation as warranted by the SSC Steering Group.

6.3   FY2023 Project Plans

SSC may by its charter and by authority of the WInnFourm Board of Directors, consider projects outside of CBRS including other Spectrum Sharing opportunities. Such approach would be considered on a case-by-case basis. As per the Charter, SSC may examine and provide work output for spectrum sharing projects that also go beyond the borders of the United States and beyond the CBRS Band.

7 Board of Directors

7.1 General Governance

A primary responsibility of the Board of Directors in FY2023 is monitoring the operations of the Forum ensuring compliance with the 2018 to 2022 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

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 FY2023 financial forecast to the Finance Committee monthly. In addition, the financial performance is reviewed following the schedule below:

- October 2022 Board Meeting – Review the audited financial results for FY2022 to be presented to the members at the Annual, and the Q1 FY2021 forecast with projections for the remainder of the year.
- Annual Meeting of the Members – Present FY2022 audited financial results to the members, present updated FY2023 projections
- January 2023 Board Meeting – Review Q2 FY2023 unaudited financial results and projections for the remainder of the year.
- April 2023 Board Meeting – Review Q3 FY2023 unaudited financial results and projections for the remainder of the year.
- June 2023 Board Meeting – Review the FY2023 forecast and approve the FY2024 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 CY2023 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 2022 Board meeting.

- **Outreach Committee** – provides input to the Board on venues and events that the Forum should have representation in attendance.

7.2 Strategic Planning

The Wireless Innovation Forum is currently operating under a 5 year strategic plan that runs through CY2022[4]. The Executive Committee of the Board of Directors will evaluate progress against this plan, the WInnForum's position within the market, and the ongoing needs of the members to develop a revised plan, execution of which will commence in FY2023.

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[4] [wireless_innovation_forum_2018_to_2022_strat_plan_-_final.pdf](#)

8 Infrastructure and Support Services

In FY2017, the WInnForum developed a Platform Strategy supporting the following positioning:

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.*

Elements of the Platform Strategy to be executed in FY2023 are included in the below.

8.1.1 Continued Product Execution

Per the Platform Strategy, Forum staff will continue to work to complete the following in FY2023:

- 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 on an as needed basis for exhibit booths, speaking opportunities, etc.

8.1.2 Marketing Strategy

For FY2023, Forum staff will focus on developing promotional materials and executing a marketing mix that will most effectively and efficiently promote the Forum. Possible event opportunities for promoting the Forum will be evaluated and explored with each Committee. Marketing projects will include:

8.1.2.1 Video blog/podcast

"Setting the Standard" is a video podcast about WInnForum projects and advanced radio technologies standards development, featuring interviews with Forum members. This project was launched in January 2021 to help promote name recognition of the Forum and establish the Forum as the premier source for standards development in the wireless space. Published episodes have explored topics from all four committees; future episodes are being planned continually. The videos and audio have nearly 500 views as of this writing. In the coming year, we will schedule episodes to cover prominent Forum work products, events and other noteworthy topics in the wireless communications space.

8.1.2.2 Monthly Non-member Email

A monthly events email will continue to be sent out to our entire database to inform non-members of current activities and promote joining. They consistently rate above industry average in opens and engagement.

8.1.2.3 Committee Sell Sheets

Forum staff will complete the development of sell sheets for each committee that highlight work products as well as promote becoming a member. These sell sheets will be distributed at events, in recruitment contacts, on each committee's web page, and via email where appropriate.

8.1.2.4 Site Audit

Forum staff will be conducting a full site audit following completion of a series of courses on SEO best practices, as well as implementing necessary changes as a result of the audit.

8.1.3 Member Retention

To retain current members, member representatives need to be engaged in Forum activities. To achieve this, staff will review membership engagement quarterly and create a communications plan to re-engage inactive member representatives, including a quick poll to initiate contact and determine any reason for disengagement. Staff will also 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 schedule three and six month follow up reach-outs through Oasis to new members to ensure they have all the information they need to get involved fully as well as highlight member benefits they may not be utilizing.

8.2 Expanding Accreditation Services

In FY2020 the WInnForum completed work on three initial certification programs required to establish the CBRS ecosystem:

- Accreditation of Public Key Infrastructure Root of Trust Certificate Authorities

- Accreditation of Certified Professional Installer (CPI) Training Program Administrators and set up of the CPI database

- Accreditation of CBSD Test Labs to run the WInnForum Protocol Testing

In FY2023, WInnForum staff will continue to maintain these programs in support of its members, including maintaining the CPI Database, providing access to application materials and requirements, receiving application materials and maintaining database of applicants, maintaining schedule of re-accreditations needed, and sending re-accreditation notices as needed. In addition, WInnForum staff will support the Spectrum Sharing Committee in establishing an industry self-certification program for CBRS Release 2 standards. WInnForum staff will also support the 6 Ghz Committee in establishing a test and certification program for AFC functional requirements and other specifications as appropriate.

8.3 Managing the CBRS Informing Incumbent Portal

WInnForum Staff will continue supporting the CBRS Informing Incumbent portal as a convenience to its members.

8.4 Member Services and Group Support

8.4.1 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 FY2022 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:

    o 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.

    o Online Communities: In FY2020 The Wireless Innovation Forum switched from Higher Logic Workspace to Causeway for member collaboration. In FY2022, staff will work to optimize Causeway to best meet with member needs.

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

- <u>Face to Face Meeting and Event Services.</u> 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, and webinars. Current meeting plans are as follows:

    - The SSC and 6 GHz Committees are planning to collocate 3 times (September, January and April).

    - The SDS Committee is intending to meet twice: once in Europe (Fall 2022) and once in the US (Spring 2023)

    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.

- <u>Project Facilitation and Management Services.</u> 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

8.4.2 Project Promotion and Committee Brand Management

In FY2023, Forum staff supported the creation of an umbrella awareness committee that contains all the Forum's committees in order to grow participation and gain new members. Projects to be undertaken in this committee include:

- Rolling updates to external web page for each committee highlighting work products and committee goals

- Press Releases announcing projects and final work products and events

- Social media and email campaigns updating project progress in order to grow participation

- Webinars promoting content of relevant work products, archived on YouTube and promoted

- Editorial pitches where appropriate to promote activities and Forum work products

- Top Ten Most Wanted Wireless Innovations promotion including document design, edit and publicity campaign, if so warranted per the results of the member survey conducted in FY2022

- Advocacy Agenda, 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.

8.4.3 News & Opportunities E-mail

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 FY2023.

8.5 Summit Management and Promotion

Building on the success of the Fall 2020 Spectrum Sharing Workshop and 2021 Online Summit, Forum staff will host a fall event, with expanded interaction opportunities, including breakout rooms. Forum staff will manage the production as well as promote the event through press release, social media and emails.

8.6 Awards

Awards for FY2023 will be managed as per the approved awards policy[5].

9 Other Corporate Administration

9.1 Annual Meeting of the Members

The Annual Meeting of the Members, as described in the Forum Bylaws will be held in in November 2022.

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[5]

https://www.wirelessinnovation.org/assets/Awards%20Policy%20-%20Approved%20-%2010%20February%202022.pdf

9.2   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 are updated to reflect the change in banks, change in accounting software, and modifications of the membership renewal processes.

In addition, the Forum shall ensure filings as follows:

- 990 filing with the IRS – 15 May 2023
- California Tax Exempt Return – 15 May 2023
- Canadian Information Return – 15 November 2022
- Canadian Extra-Provincial Annual Report – 2 January 2023
- 1099s to recipients – 31 January 2023
- 1099 and 990s to IRS – 28 February 2023
- SAM Renewal – 24 August 2022
- Foreign Bank Account Report Form – 15 October 2022
- Fairfax County, VA Business, Professional, Occupational License-01 March 2023
- Fairfax County, VA Personal Property Tax-01 May 2023 – filing only; no tax paid
- Virginia Corporate Commission Report - 30 April 2023
- Virginia Corporate Commission Registration Fee -30 April 2023

9.3   Insurance

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

- Error and Omissions plus Certification Insurance: April 2023
- General Liability Insurance: August 2022
- Directors and Officers Insurance: January 2023

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

9.4   FY2024 Planning

The FY2024 Operation Plan will be developed on the following schedule:

- Board Approval of High Level Goals for FY2022 – March 2023
- High Level Goals and Ops Plan Process Presented to Group Leaders –March 2023
- Draft Budget Presented to the Finance Committee – May 2023
- Draft Plan Submitted to Officers – May 2023
- Final Draft Approved by Forum Chair and CEO – June 2023

The final plan will be presented to the Board of Directors for their approval during the June 2022 Board Meeting and will be submitted to the membership for final approval immediately thereafter.

10 WInnForum FY2023 Budget