CBRS COMMITTEE RELEASE PLAN

Approved by the CBRS Committee Steering Group
1 November 2023

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CBRS Standards Releases

Release 1	Release 1+	Release 2
Baseline Standards Used for Initial Certification	Post Initial Certification Revisions to Baseline Standards Addressing Regulatory Changes	Enhancements to Baseline Standards Addressing Industry Need

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Note on Compliance Versus Conformance

MANDATORY standards are set by governments (e.g., FCC Rules) and are enforced by laws and regulations.

VOLUNTARY standards do no include legal or statutory requirement

- Voluntary standards may be used to harmonize regulations or to meet specific attributes, but they do not have the force of law.
- Adoption of any WInnForum standard is, by definition, VOLUNTARY

CONFORMITY refers to when an organization seeks to meet the requirements of a voluntary standard

COMPLIANCE relates to a situation in which the organization fulfils a compliance obligation or legal requirement stipulated by a legal or higher authority (e.g., the FCC).

WInnForum may offer programs to demonstrate CONFORMANCE with a WInnForum standard through industry CERTIFICATION testing

CONFORMANCE with a WInnForum standard may be deemed by the sufficient by a regulatory body to demonstrate COMPLIANCE with MANDATORY requirements during government CERTIFICATION testing

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CBRS WInnForum Standards

WIRELESS INNOVATION FORUM

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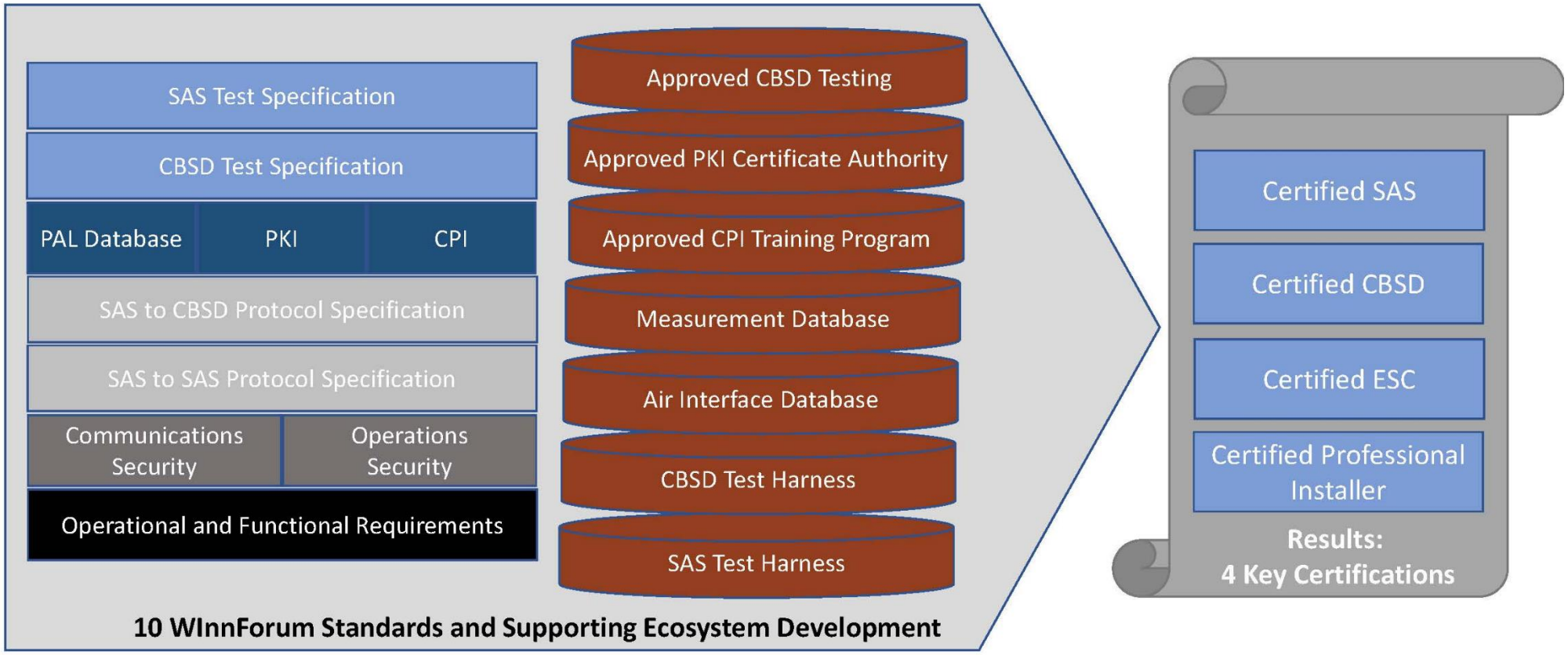
Commercializing CBRS: Standards and Ecosystem Support



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Standards That Comprise Release 1

WINNF-TS-0112-V1.9.1 Operational and Functional Requirements
WINNF-TS-0065-V1.3.0 CBRS Communications Security Technical Specification
WINNF-TS-0071-V1.0.0 CBRS Operational Security Technical Specification
WINNF-TS-0016-V1.2.7 SAS to CBSD Protocol Specification
WINNF-TS-0096-V1.3.2 SAS to SAS Protocol Specification
WINNF-TS-0061-V1.5.1 SAS Test and Certification Specification
WINNF-TS-0122-V1.0.2 CBSD Test and Certification Specification
WINNF-TS-0245-V1.2.0 PAL Database Specification
WINNF-TS-0022-V1.5.0 CBRS PKI Certificate Policy
WINNF-TS-0247-V1.6.0 CPI Training Program Accreditation Standard

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Release 1 Policy Documents

WINNF-SSC-0001 Air Interface and Measurement Policy

WINNF-SSC-0002 Registered Air Interfaces and Measurements

WINNF-SSC-0003 Traceability Matrix

WINNF-SSC-0004 Release Plan (this document)

WINNF-SSC-0005 <withdrawn>

WINNF-SSC-0006 <withdrawn>

WINNF-SSC-0007 Margin Policy

WINNF-SSC-0008 Coordinated Periodic Activities Policy (CPAS)

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Standards Milestones

CA Accredited: Q4 2017

Baseline Standards Announced: Q1 2018

CBSD Test Code Released: Q2 2018

CBSD Test Labs Approved: Q2 2018

SAS Test Code Released: Q2 2018

CPI Training Program Accreditation: Q1 2019

For more on CBRS Status, please see https://cbrs.wirelessinnovation.org/cbrs-status-summary

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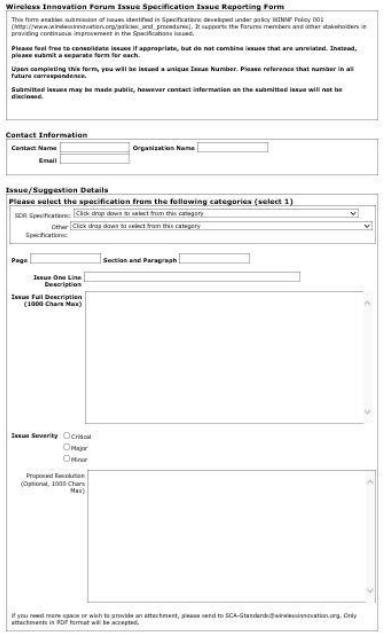
Issue Management and Change Requests

Following the release of revision 1 specifications, change requests will be collected from the Forum's public issues management portal



Wireless Innovation Forum Issue Specification Issue Reporting Form

This form enables submission of issues identified in Specifications developed under policy WINNF Policy 001 (http://www.wirelessinnovation.org/policies_and_procedures). It supports the Forums members and other stakeholders in providing continuous improvement in the Specifications issued.

Please feel free to consolidate issues if appropriate, but do not combine issues that are unrelated. Instead, please submit a separate form for each.

Upon completing this form, you will be issued a unique Issue Number. Please reference that number in all future correspondence.

Submitted issues may be made public, however contact information on the submitted issue will not be disclosed.

Contact Information

Contact Name | Organization Name | Email

Issue/Suggestion Details

Please select the specification from the following categories (select 1)

SDR Specifications: Click drop down to select from this category

Other Specifications: Click drop down to select from this category

Page | Section and Paragraph

Issue One Line Description

Issue Full Description (1000 Chars Max)

Issue Severity: Critical, Major, Minor

Proposed Resolution (Optional, 1000 Chars Max)

If you need more space or wish to provide an attachment, please send to SCA-Standards@wirelessinnovation.org. Only attachments in PDF format will be accepted.

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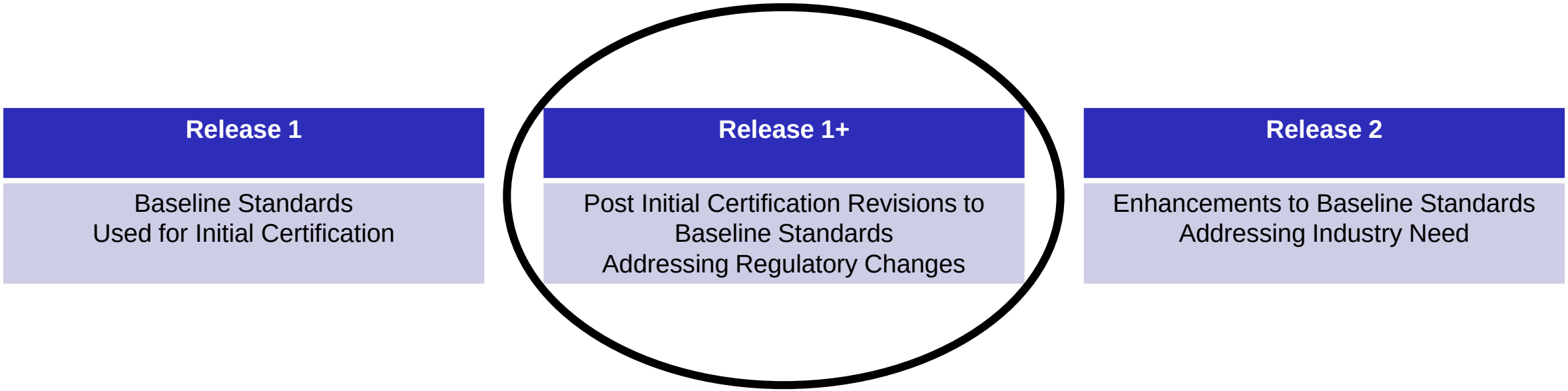
CBRS Standards Releases



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Release 1+ Documents

WINNF-TS-1020 Post Initial Certification Revisions to WINNF-TS-0112-V1.9.1

WINNF-TS-3010 Post Initial Certification Revisions to Baseline SAS - SAS Interface Technical Specification

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Release 1+ Features

Current

- PAL Channel Reassignment
- Heartbeat Interval Timing (In Ballot)

Planned

- Updates to Canadian Border Protection

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Release 1+ Testing

To Be Determined

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Steering Group Policies for WG Implementation (1 of 2)

Release 1/Release 1+ is the default for Devices and SAS's

There will be a mix of Release 1/Release 1+ and Release 2 participants in the ecosystem for the foreseeable future

Release 2 Entities must insure backward compatibility with Release 1/Release 1+

- Nothing Breaks when talking to a Release 1 Entity

While Release 2 is not mandatory, if you chose to move to Release 2, a Capability Exchange protocol update to allow feature discovery is required to claim conformance

The Capability Exchange will support the selective implementation of Release 2 "Features"

- Release 2 *Non-Regulatory Impacting (NRI)* Features are specific functions, built on top of the Release 1 framework.
- Release 2 *Regulatory Impacting (RI)* Features are specific functions that may replace the building block(s) of the Release 1 framework.

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Steering Group Policies for WG Implementation (2 of 2)

The implementation of Release 2 Features that update existing Release 1 requirements might be related to or dependent upon other Release 1 requirements or Release 2 Features.

The Set of Permitted Features is "Open" to Extension.

- SAS and CBSD proprietary Features may be exchanged through the same interface as WInnForum approved features. However, the "Feature ID" of those proprietary Features shall follow the standard naming convention as defined by WInnForum, to avoid conflict with standard features and other proprietary features.

Claiming conformance with a WInnForum Standardized Release 2 Feature requires demonstrating that the requirements associated with that feature are fully met.

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Rel-2 *NRI* Features are Built on top of Rel-1 Framework, but Rel-2 *RI* Features May Replace Rel-1 Functions/Processes/Behaviors

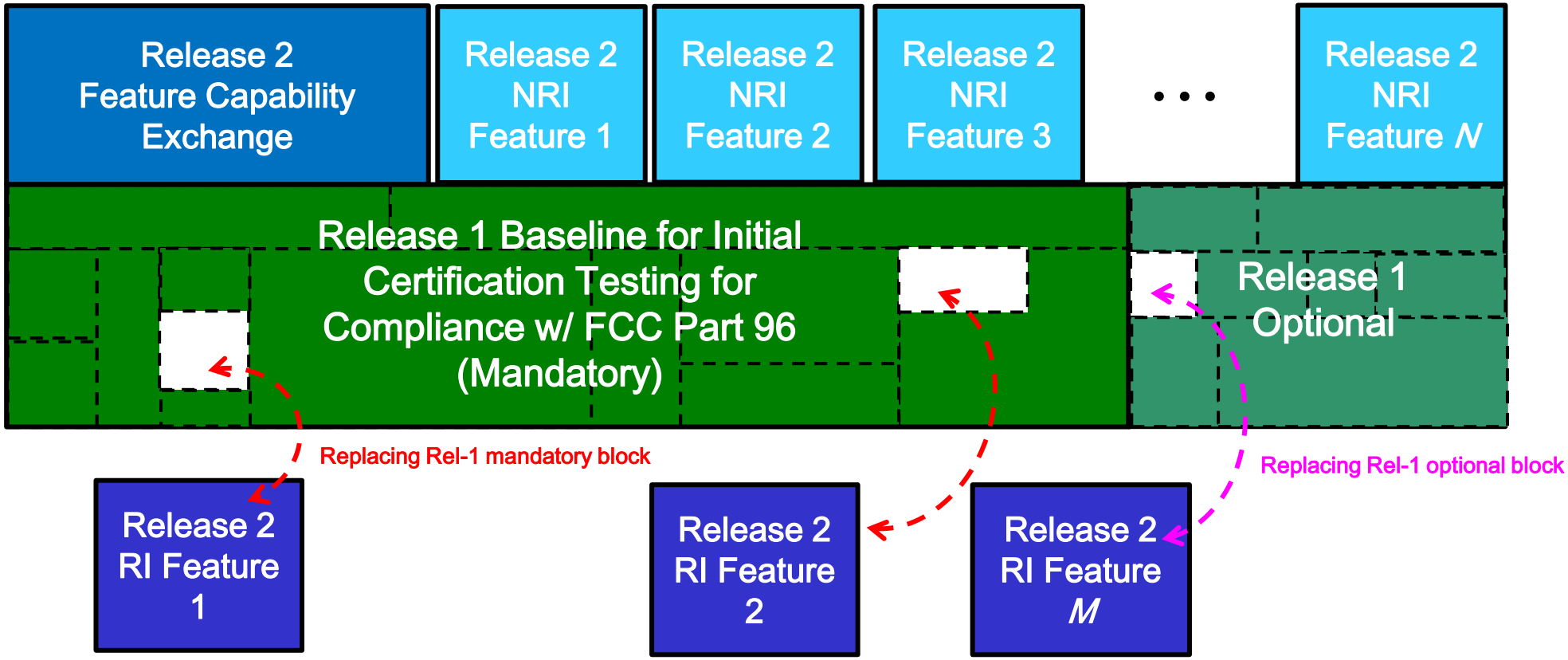
Release 1 *Mandatory* building block (a function, process, behavior, etc.)

Release 1 *Optional* building block (a function, process, behavior, etc.)

Mandatory to claim conformance with Release 2

Optional "à la carte" Release 2 *NRI* Feature

Optional "à la carte" Release 2 *RI* Feature



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Release 2 Features

Current

1. Enhanced CBSD Group Handling
2. Principal-Subordinate Single Frequency Group
3. Interdependent Single Frequency Group
4. Separable Single Frequency Group
5. Enhanced Antenna Patterns
6. CPE-CBSD Indicator
7. Passive DAS
8. Grant Update
9. Extension to PPA Information
10. Global Navigation Satellite System Measurements to Estimate Building Entry Loss
11. Antenna Pattern Negotiation

Planned

1. Multi-SAS Inter-Release IAP

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Release 2 Policy Documents

WINNF-SSC-0009 Grouping Parameters Registration Policy

WINNF-SSC-0010 Registered Grouping Parameters

WINNF-SSC-0012 CBRS Vendor Admin ID Registration Policy

WINNF-SSC-0013 Recognized CBRS Vendor Admin IDs

WINNF-SSC-0014 CBRS SAS Administrator IDs

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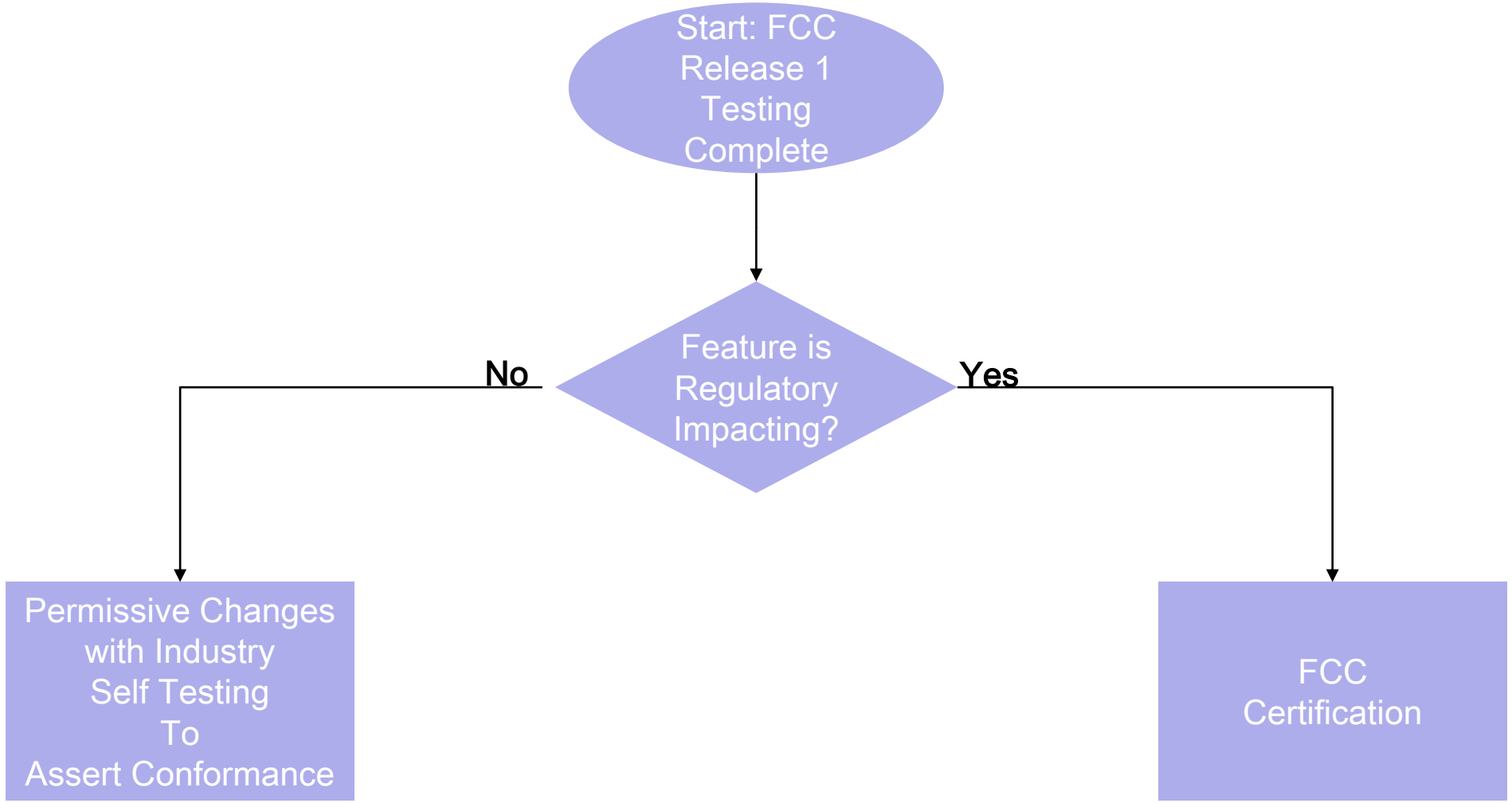
Release 2 Testing



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Self Testing for NRI Features

- **WInnForum CBRS Release 2 Self-Testing Policy is defined in document WINNF-TS-4005**
- **Companies (members and non-members) must agree to Policies and Procedures for Self Testing balloted and approved by the WInnForum members to claim "conformance" with WInnForum Standards for that feature, including:**
  - Agreeing to follow the test specifications defined by the WInnForum CBRS Test and Certification work group for the mandatory Release 2 capability exchange and for supported Release 2 optional features
  - Agreeing to use the WInnForum test harness developed by the WInnForum CBRS Test and Certification work group for supported features
  - Agree to submit, on company letter head, a signed letter to the WInnForum summarizing the testing for each feature, including the output of the test harness, if applicable, and indicating that all tests were passed
- **WInnForum will maintain a public website detailing which products are coformant with which feature**
- **Will start with Feature-by-Feature case, but may later move to feature bundle profiles**
- **Interoperability testing "in addition to" the self testing**
  - Not required to claim conformance
  - Entities might require that as part of their business agreement

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A note on professional installation and release 2

For all "Release 2" features, WInnForum is updating TR-5001 to provide guidance for the CPI

WInnForum is updating the CPI specification (TS-0247) as follows

- Indicates that a CPI can choose not to support a Release 2 feature
- Spells out the requirements for CPI working with 3rd party subject matter experts, such as a DAS installer, for release 2 features, should they so choose
- Requires that the CPI should do reasonable due diligence on the qualifications of the subject matter expert and retain records on the basis of trust of this subject matter expert for traceability
- Re-emphasizes that the CPI will not lose their credential if the qualifications of the “subject matter expert” are misrepresented
- Re-emphasizes that the CPI is still responsible for all other requirements as currently stated in 0247, and this applies to all data entered into the SAS as per this:
    - The obligation that a CPI interfacing with the SAS to correct inaccurate data discovered in the course of operations. An explanation of the requirement that the SAS Administrator holds the CPI responsible for accurate data entry, and an explanation of the responsibility for the CPI to correct the inaccurately entered data.

All Training Program Administrators will be required to train the responsibilities defined by this update and so all CPIs will be certified for all releases

- This training is ONLY on the responsibilities, not on any of the technical details in 5001
    - This training can be provided as a single, simple update (1 slide) to the CPI’s and ask for confirmation of understanding as per the existing standard
- CPI exam may be updated to ensure the CPI understands their responsibility if they chose to do a release 2 feature

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