# SPECTRUM SHARING COMMITTEE RELEASE SCHEDULE

Approved by the Spectrum Sharing Committee Steering Group 28 February 2018





## Early Release (Release 0) Publication Timeline







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## **Release 1 Standards Publication Timeline**



## **Release 1 Test and Certification Timeline**



Slide 4



## Commercializing CBRS: Standards and Ecosystem Support





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## **Standards That Comprise Release 1**

WINNF-TS-0112-V1.5.0 Operational and Functional Requirements
WINNF-TS-0065-V1.1.0 CBRS Communications Security Technical Specification
WINNF-TS-0071-V1.0.0 CBRS Operational Security Technical Specification
WINNF-TS-0016-V1.2.1 SAS to CBSD Protocol Specification
WINNF-TS-0096-V1.2.0 SAS to SAS Protocol Specification
WINNF-TS-0061-V1.2.0 SAS Test and Certification Specification
WINNF-TS-0122-V1.0.0 CBSD Test and Certification Specification
WINNF-TS-0245-V1.0.0 PAL Database Specification
WINNF-TS-0022-V1.1.2 CBRS PKI Certificate Policy
WINNF-TS-0247-V1.0.0 CPI Training Program Accreditation Standard



## What is addressed in the Release 1 (1 of 3)

#### **Border Area Management**

• Requirements on Implementing international agreements to protect Canada and Mexico

#### **CBSD Measurement Reporting**

• Initial requirements for CBSD measurements of their local interference environment, and reporting those data back to the SAS.

#### **CBSD** Registration Processing

• The requirements for how a CBSD registers with a SAS, including owner registration, professional installer registration and CBSD registration.

#### **Communications Security**

• The communications security policies governing SAS and CBSD communications interfaces.

#### **Certificate Authority Accreditation Standard**

#### **Certified Professional Installer Training Program Accreditation Standard**

• Guidelines for adoption of uniform industry working standards and curriculum required to be consistent with the protection of spectrum, both licensed and GAA, for sharing in the 3550-3700 MHz band.

#### Note: Detailed feature list associated with each release is captured in the SSC CBRS Requirements Traceability Matrix (WINNF-17-SSC-0003)



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## What is addressed in the Release 1 (2 of 3)

#### **Domain Proxy**

• The baseline Operational and Functional Requirements of the CBRS Domain Proxy for initial testing and trials.

#### **Dynamic Protection Zones**

#### **Environmental Sensing Capability (ESC)**

• The requirements for implementation of an Environment Sensing Capability, and protecting federal incumbents.

#### **Exception Management**

• The requirements for how trouble tickets or exceptions are managed, including from FCC input, reports from incumbents, and reports from PAL.

#### **FSS Protection**

#### **Grandfathered Wireless Device Protection**

#### **Operations Security**

• The overall system operational security requirements to include handling of incumbent data, obfuscation of spectrum data, and processes associated with auditing and governance of the SAS infrastructure.



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#### **PAL Protection Area Definition**

 Requirements on how PALs reports their coverage area to the SAS for end-to-end use of the licenses. This includes how PAL licensees define PAL Protection Areas (PPAs), request to operate in a particular geographic area within their license boundary (PPA), how PPA credentials and IDs are defined, conveyed and managed, and how the SAS accomplishes such protections.

#### **Protocol Support for Priority Access Licensing**

#### **Propagation Modeling**

 Identify appropriate 3.5 GHz propagation models for Incumbent and PAL protection and PPA definition, determine relative benefits and limitations, develop agreement on baseline needs such as underlying data, and define standardized interference aggregation methodologies.

#### **SAS to SAS Information Sharing**

• Initial support for SAS-SAS Synchronization and Information exchange.

#### **Spectrum Grant Request Processing**

• The requirements for how a CBSD requests and relinquish grants, and how grants are reassigned or terminated.



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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







## **Future Releases**

# One year cycle for future Major Releases, inclusive of both technical and test and certification specification development

- Adherence to timeline determines what's "in" or "out" of the specification
- Project approval and prioritization of new feature development will be managed by the Steering Group (see next slide)

#### Standards maintenance will be managed through technical updates to existing version

• E.g., 1.1, 1.2, 1.3, etc.





## "Projects" are Initiated through the Committee Steering Group (SG)



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## Release 2 Requirements Publication Timeline

~t	Sep '16	Nov '16	Jan '17	Mar '17	May '17	Jul '17	Sep '17	Nov '17	Jan '18	18 Mar'	May '18
<sup>irt</sup> <sup>16</sup> Opera	tional and I	Functional F	Requireme	nts - V2.0.0							
	'16 - Jun 20		·								
GAA Coe	existence										
	6 - Jan 24 '18										
	C	BSD as CPE									
		oct 7 '16 - Feb 5 '	18								
								Evolution of Prop	agation		
								Models Oct 11 '17 - Jan 24	4 '18		
										Finalization	
										Feb 6 '18 - Apr 4 '18	
											Balloting
											Apr 5 '18 - Jun 20 '18



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## Release 2 Protocols Publication Timeline



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	Mar '18	May '18	Jul '18	Sep '18	Nov '18	
	5 GAA Coexistence Metrics TR 25 '18 - Jul 17 '18					Finish Dec 21 '18
	rt Development 5 '18 - May 1 '18					
		Balloting May 2 '18 - Jul 17 '1	8			
		Other WG5 O May 8 '18 - Se	perations Projects (De p 27 '18	etails TBD)		
	Test and Cert Specs - Feb 26 '18 - Dec 21 '					
	Specification Development Feb 26 '18 - Oct 5 '18					
					Balloting Oct 8 '18 - Dec 21 '18	
L						WIR

## Backlog/Future Release Features

#### **Backlog (Target WG)**

- Leasing (WG1)
- Simplification and Optimization of Requirements from Release 1 (WG1)
- Support for Revised Rules as Required (WG1)
- Automated Exception Handling (WG1)
- Enhanced PAL Support (WG3)
- Registration Update (WG3)
- Enhanced Measurement Reporting (WG3)
- PAL Channel Assignment (WG5)
- PAL Coexistence (WG1)

#### **In Progress**

- Propagation Model for Release 1 (WG1)
- International Border Update for Release 1 (WG1)
- Test Case Updates to Release 1 (WG4)
- Simplification and Optimization of Release 1 SAS to CBSD Protocol for Release 2 (WG3)
- Simplification and Optimization of Release 1 SAS to SAS Protocol for Release 2 (WG3)
- GAA Coexistence TR (WG5)

#### Complete

- CBSD as CPE for Release 2 (WG1)
- GAA Coexistence for Release 2 (WG1)
- Evolution of Propagation Models for Release 2 (WG1)

