

Lessons Learned from CBRS

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Summary

- **The following list is a set of lessons learned in CBRS so far**
- **The presented items are the balloted and approved recommendations of the members of the Wireless Innovation Forum**
- **Additional items that are not presented here are under further study and may be added in a future release**
- **Additional yet-to-be-identified lessons learned may be added in a future release**
- **The lessons in this release concentrate on those that could be applied to future spectrum sharing scenarios, as opposed to those that are solely for the improvement of CBRS itself**
- **The target audience of this release includes regulators; government spectrum users; standards development organizations; and future shared spectrum users, including both incumbents and secondary services**
- **A future release will include more details on the items**
- **The items in this release are presented in arbitrary order**

Lessons Learned (slide 1 of 2)

- 1. Centralized dynamic spectrum sharing works with certain use cases, but enhancements are necessary to increase the efficient use of the shared spectrum**
- 2. Sharing rules should accommodate innovative new propagation models, as well as improvements and evolution of propagation models**
- 3. Recognize that there are considerable implementation complexities to the use of aggregate interference**
- 4. Incumbent activity detection using dedicated sensors is problematic**
- 5. Coexistence among peer users should be a fundamental consideration in future centralized spectrum sharing frameworks**
- 6. Enforcement is intrinsically a government function**

Lessons Learned (slide 2 of 2)

- 7. FCC should help educate potential shared users of the limitations and expectations of the use of a shared band**
- 8. The ultimate goal for time scales for dynamic resource allocation (e.g., frequencies and powers) should be near real-time**
- 9. Certification of virtualized/disaggregated radio technology should be accommodated**
- 10. FCC should advocate for technical solutions in shared spectrum, with other government agencies, in support of industry**
- 11. FCC needs to provide better foresight and coordination of adjacent band situations**
- 12. ULS is not suitable for many spectrum sharing applications**