

# 3.5GHz Workshop

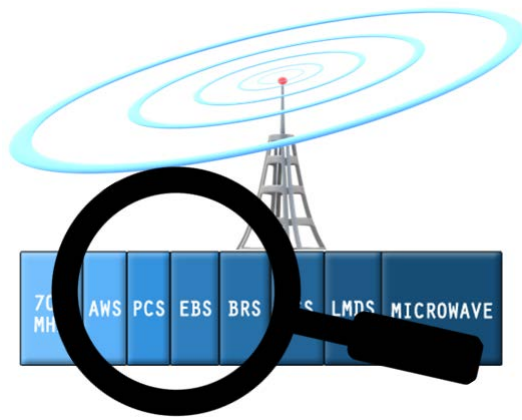
## Implementation Experiences

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- Spectrum Bridge was founded to develop solutions to provide access to spectrum
- SpecEx - Secondary Marketplace
- UDIA - sharing of the 5GHz band (protecting TDWR)
- TVWS - the worlds first automated TVWS geo-location database
  - Prototypes running world wide
  - SAS prototype here today



- Early on there were many fears about the outcome
- Industry demonstrated an ability to work together to solve the necessary problems
  - Calculation consistency - not as easy as it sounds, the devil is in the details
  - Synchronization, which is a model that could work for SAS
- The solutions work in a competitive environment
- The tools turned out to be just as useful for the incumbents
  - In addition to looking at whether the SAS adequately protects them incumbents should be looking to see what the SAS can do for them

# It is not just a "Database"

- There is much more to sharing than a database.
  - The entire focus in TVWS was on protecting the incumbent (all DB have to be consistent there)
- left out entirely was the "protection of the secondary user."
  - Creating a host of opportunities for value added services but also some areas to address in the SAS.



- Don't have to get it right first time.
  - SBI Certified with 2010 rules, did anyone notice the change to the 2012 rules?
- The answers do not have to be the same all the time everywhere.
  - Protection can be adjusted very quickly to address pinpoint issues (Time, geography frequency).
- The solutions are mostly cloud based so they scale very easily to handle large numbers of users and near real time operation
- Radio vendors tie into the SAS and need different levels of support
  - Differences between the level of capability and service to a small cell deployment a campus deployment and single AP in a home/office
- Radio vendors favor an industry solution with multiple players rather than a government run solution
  - Ideally they want to work with a handful of systems worldwide