

Session 2: Policy

1- Spectrum

2- Privacy

3- Security

Past Spectrum Issues

- In the past experimental licenses have made spectrum access possible but painful
 - Many times incumbents will shut down use because they can
- FCC has simplified experimental license process
 - But burden is on user to comply with legacy owner
- Devices not available for non-commercial bands

Future

- Future holds easier access:
 - TV Whitespaces
 - Simple database access
 - 3.5 GHz
 - Proposed rules have significant flexibility
 - International licensing of band for LTE makes equipment available
 - Unlicensed LTE
 - Potential for easy access and devices
 - But limited to LTE

Competition

- Enabling innovation and new entrants
- Need to protect incumbents
 - Role of SAS
- Some policies implemented through SAS
- Allocation can be on short time scales

Privacy

- Discussion was largely on anonymization
 - Tradeoff of privacy vs utility of a dataset
 - Bigger issue in the measurement community
- What is special in a wireless edge testbed
 - Location+(a lot of) personal data
 - Non testbed users monitored (e.g. in the city, cars, etc..)
 - Cannot know privacy implications a priori
 - Devices beyond phones

Possible Process

1. Collect+ anonymize data before making them available
2. Separate who collects and who analyzes data with limited API access (e.g. google)
3. Data stays within testbed, processed data must be approved before release

Opt-in (incentivize), Opt-out (remove)

IRB must be efficient: NOT one per experiment.

Possible use of carrier exemption?

Security

- Unique threats here
 - Mobile + infrastructure are more flexible
 - Reprogrammed often
 - Higher likelihood of bugs/vulnerabilities being introduced
- Lessons learnt from DETER