# **Enforcement Subcommittee**

Mark Crosby / Paul Kolodzy 4 May 2017

# Enforcement

What options do you see for making enforcement more robust, including by increasing automation to prevent interference, and to identify and respond to interference when it does occur in the near or longer term?

What are the principal technical and operational options for enabling automated enforcement, at both the network and device levels, and how would you address cybersecurity and privacy requirements? Please consider, among others, options related to: station IDs; data cloud/fog architectures; and crowd-sourcing.

What options for automated enforcement are unique to the development and deployment of 5G technologies/applications?

What steps do you recommend the Federal Government, specifically NTIA, take to implement automated enforcement processes? What steps will the private sector need to take? Please consider steps relating to technical, process and policy issues, including potential operator-to- operator coordination approaches?

#### Members

Co-Chairs: Mark Crosby and Paul Kolodzy

Members: Mary Brown, Dale Hatfield, Mark McHenry, Janice Obuchowski, Rick Reaser, Dennis Roberson, Mariam Sorond, Bryan Tramont, Jennifer Warren, Bob Weller

### Clarifications Needed (from Paul & Mark)

What are the overarching goals for having automated enforcement mechanisms

To protect government and/or users

To maximize spectrum sharing due statistical aspects of interference

Other?

What are the desired mechanisms?

Automated Forensics - figure out what went wrong

Automated Corrective Action - autonomous or near-autonomous

Other?

#### Status

Subcommittee Call (21 April) - most joined; next Call on 23 May

Members interested in getting background information in order to enhance current understanding and paths forward

2015 Enforcement Subcommittee Reports

FCC TAC Material from 2014 and 2017

## Status

Some General Questions for Internal Discussion (preliminary conversations):

Should we have a national enforcement system?

How does federal gov't interact with FCC enforcement, what are the roles of state organizations?

How to leverage other resources instead of a monolithic enforcement group ... how scalable?

Automated enforcement ... are there items off the table?

The role of human investigative personnel?

What needs to be known and what baseline measurements are needed?

## Background Information that may be of interest

A Study to Develop the Next Generation Systems Architecture for Radio Spectrum Interference Resolution (March 9, 2016) Basic Principles for Assessing Compatibility of New Spectrum Allocations (December 11, 2015) Enforcement Subcommittee Report Commerce Spectrum Management Advisory Committee (May 12, 2015) A Case Study of Risk-informed Interference Assessment: MetSat/LTE Coexistence in 1695–1710 MHz (December 9, 2015) A Quick Introduction to Risk-Informed Interference Assessment (April 1, 2015) Understanding the Spectrum Environment: Data and Monitoring to Improve Spectrum Utilization (August 2014) Multi-stakeholder Organization to Develop Interference Limits Policies (June 17, 2014) Introduction to Interference Resolution, Enforcement and Radio Noise (June 10, 2014) The Impact of Emerging Receiver Technologies on Changing Standards and Spectrum Allocations (June 9, 2014) Interference Limits Policy and Harm Claim Thresholds: An Introduction (March 5, 2014) Presentations at December 7, 2016 Meeting of the TAC (See p. 8 for a Summary of Recommendations)