Telecom Regulations in the United States

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Topics

- FCC Overview
- Role of regulation
- FCC Processes
- Role of OET Lab
Federal Communications Commission (FCC) regulates the private sector telecommunications industry, in the public interest

- Establishes technical regulations for transmitters and other equipment to minimize their potential for causing interference to radio services.

- Administers an authorization program to ensure that equipment reaching the market complies with the technical requirements.
Background

- Technology enables many users to share spectrum without individual licenses
- Open and easy access provides opportunity for entrepreneurs and innovation
- Many applications are being satisfied that were never originally envisioned
- Tremendous Growth in devices using wireless technologies
  - Over 500 Million license-exempt Devices in the US
  - Continue to add new and innovative products
Formula for Regulatory Success

Establish basic technical rules to control Radio interference

Equipment authorized to ensure compliance

Use industry developed standards to facilitate economies of scale and interoperability

All parties are assured products will have access to the market:
  Provides opportunity for entrepreneurs

New products and Services for businesses And consumers
FCC Regulations

Title 47 of the Code of Federal Regulations (47 CFR)

- Transmitter specifications
- Radio Services
- EMC specifications
- Telephone Terminal Equipment
- Test Methods
- Equipment Authorization Requirement
- Marketing and Importation Rules
FCC Regulations Overview

**Administrative Rules**
- Contain general requirements applicable to all other rule sections
  - 47 CFR Parts 0, 1 and 2
    - Examples: application filing process, general description of required tests, confidentiality, etc.

**Radio Service Rules**
- Contain specific user licensing and equipment authorization testing requirements
  - 47 CFR Part 15, 18, 22, 24, etc.
    - Examples: Line conducted and radiated emission limits for specific products, occupied bandwidth masks, etc.
OET Lab Principal Functions

- Equipment Authorization including monitoring Telecommunication Certification Bodies (TCBs)
- Ensure compliance through market surveillance and enforcement
- Technical Studies supporting regulatory policies and rulemaking
- Providing web-based comprehensive and timely clarification of technical standards and procedures

- Authorized by FCC
- Authorized by TCBs
- Total New Authorizations
Market Surveillance

The market surveillance program complements equipment authorization process

- Complaints about non-compliant equipment from the public
- Referrals from Enforcement Bureau
- Random samples of a group of equipment to determine compliance for select product areas

Audit and compliance evaluation of TCB issued grants
Measurement Procedure Developments

Generally rely on industry standards
Provide processes for new technologies
  – In the early stages:
    • Provide general guidelines
    • Help “nurture” technology
    • Test devices in the lab (“pre-grant” testing)
    • Monitor new applications for new issues
  – As technology “matures”
    • Develop specific and comprehensive guidelines
    • Publish guidelines and educate test labs
    • Permit TCBs to review applications
    • Perform “post-grant” testing of devices
    • Voluntary standards development
Equipment Authorization Process - Summary

- Establish minimum standards for demonstrating compliance
- Streamlined procedures to permit rapid introduction of products in the marketplace
- Permit development of new technologies while continue to meet regulatory obligations
- Ensure compliance with rules
- Help consumers with information to meet compliance requirements
Questions and Answers

Thanks!