FCC Equipment Authorization Program

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FCBA CLE Program
Equipment Authorization – Getting Approval for the Next Must-Have Device

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FCC Regulations

- Federal Communications Commission (FCC) regulates the private sector telecommunications industry, in the public interest
  - First, the Commission establishes technical regulations for transmitters and other equipment to minimize their potential for causing interference to radio services.
  - Second, the Commission administers an authorization program to ensure that equipment reaching the market complies with the technical requirements. (Part 2 J)

Equipment Authorization Scope

- FCC rules specify three general categories:
  - Radio Transmitters (e.g. Parts 27 or 90)
    - Licensed radio service equipment
  - Unlicensed Devices (e.g. Part 15)
    - Incidental Radiators
    - Unintentional Radiators
    - Intentional Radiators
  - Telephone Terminal Equipment (Part 68)
    - Managed by Administrative Council for Terminal Attachments (ACTA)

Equipment Authorization Program

- The product approval requirement is specified in the rule part under which equipment operates
  - Not all equipment require FCC approval or FCC authorization; generally products are still required to meet certain standards
- The FCC currently has four equipment approval programs:
  - Verification*
  - Supplier Declaration of Conformity (SDoC)*
  - Declaration of Conformity (DoC)*
  - Certification
- All four programs involve the use of the private sector to varying degrees

(*) These three types of approval are variations of general Suppliers' Declaration of Conformity.

Equipment Authorization Program

The type of approval is specified in the rules for the particular type of device

Certification
- FCC/TCB
- FCC Database

SDoC

DoC (Part 15/18)
- Accredited lab

SDoC (Part 68)
- Industry Database

Verification

Equipment Authorization Types (Example)

Verification	SDoc	DoC	Certification[2]
Most ISM Equipment		PC's & Peripherals	PC's & Peripherals[1]
TV & FM Receivers		Most Receivers	Most Receivers
All Other Digital Devices		TV Interface Devices	TV Interface Devices
Pt-to-Pt Microwave		Consumer ISM Equipment	Consumer ISM Equipment
Broadcast Transmitters	Telephone Equipment		Telephone Equipment[1]
Aux. Broadcast Transmitters			Most transmitters
INMARSAT Equipment			Scanning Receivers
406 MHz ELT			Access BPL
CATV Relay Transmitters			

(1) The FCC Lab no longer certifies this equipment. However, this equipment may be certified by a TCB.

(2) For several products the manufacturer is given the option to use either DoC or Certification.

Test Lab Requirements

- Part 2 specifies the minimum standards for test labs that can perform compliance testing for FCC equipment authorization:
  - Verification: Manufacturers test lab
  - Declaration of Conformity: Accredited Test Labs according to recognized standards
  - Certification:
    - § 2.948 defines requirements for test labs for Part 15 and 18; referred to as “FCC Listed” labs

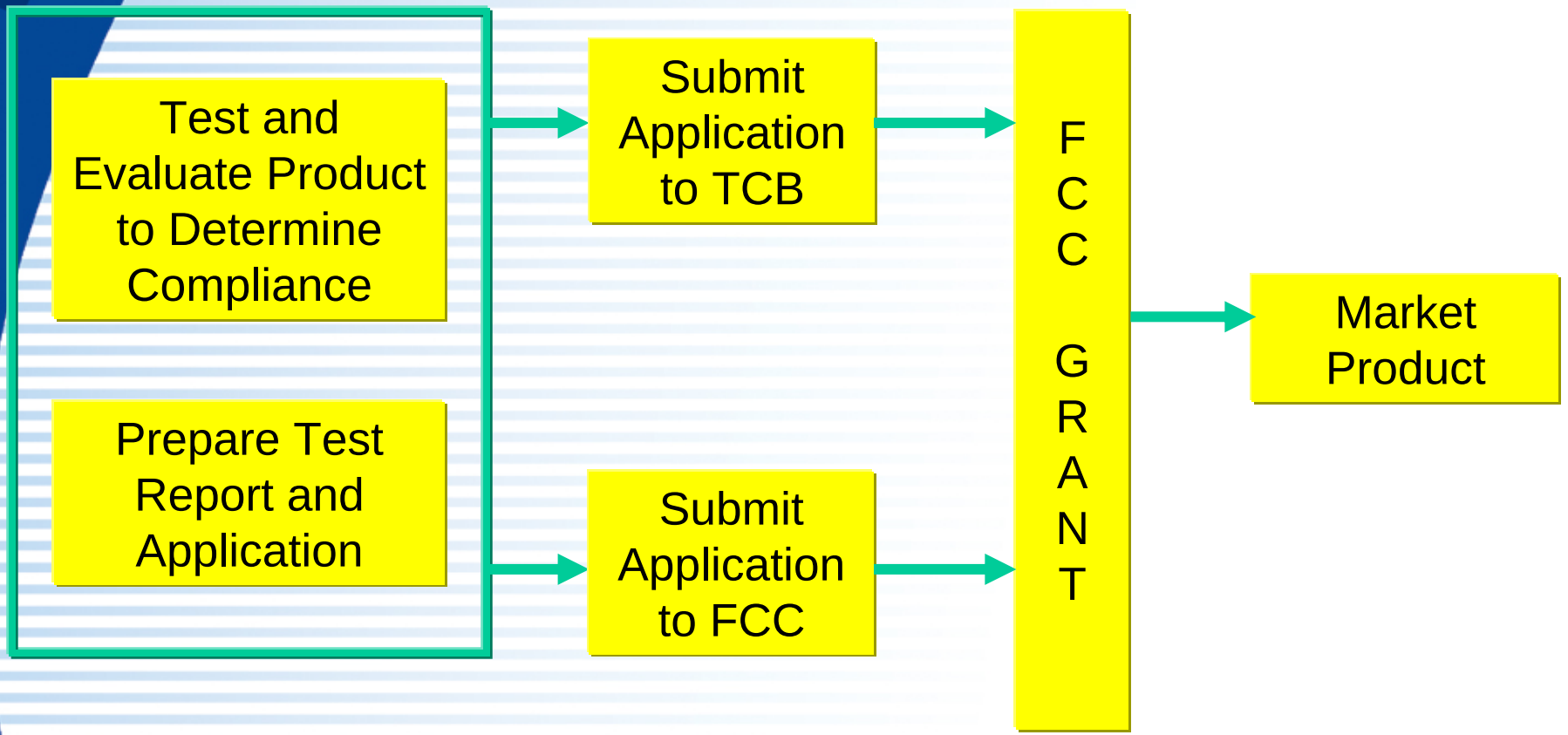
Accredited Test Laboratories

- Testing performed in support of a Declaration of Conformity must be performed by an accredited laboratory that has been recognized by the FCC
- Laboratories outside the United States may be recognized by the FCC if:
  - the laboratory has been designated by a foreign authority and recognized by the Commission under the terms of a government-to-government Mutual Recognition Agreement or Arrangement

FCC Listed Lab

- A description of the test site in which a product subject to certification under Part 15 or Part 18 will be tested for compliance must be filed with the FCC Lab, pursuant to § 2.948
  - The FCC maintains a list of over 800 listed laboratories
- Foreign labs may be listed to perform testing products subject to certification under Parts 15 and 18
- FCC Online Database

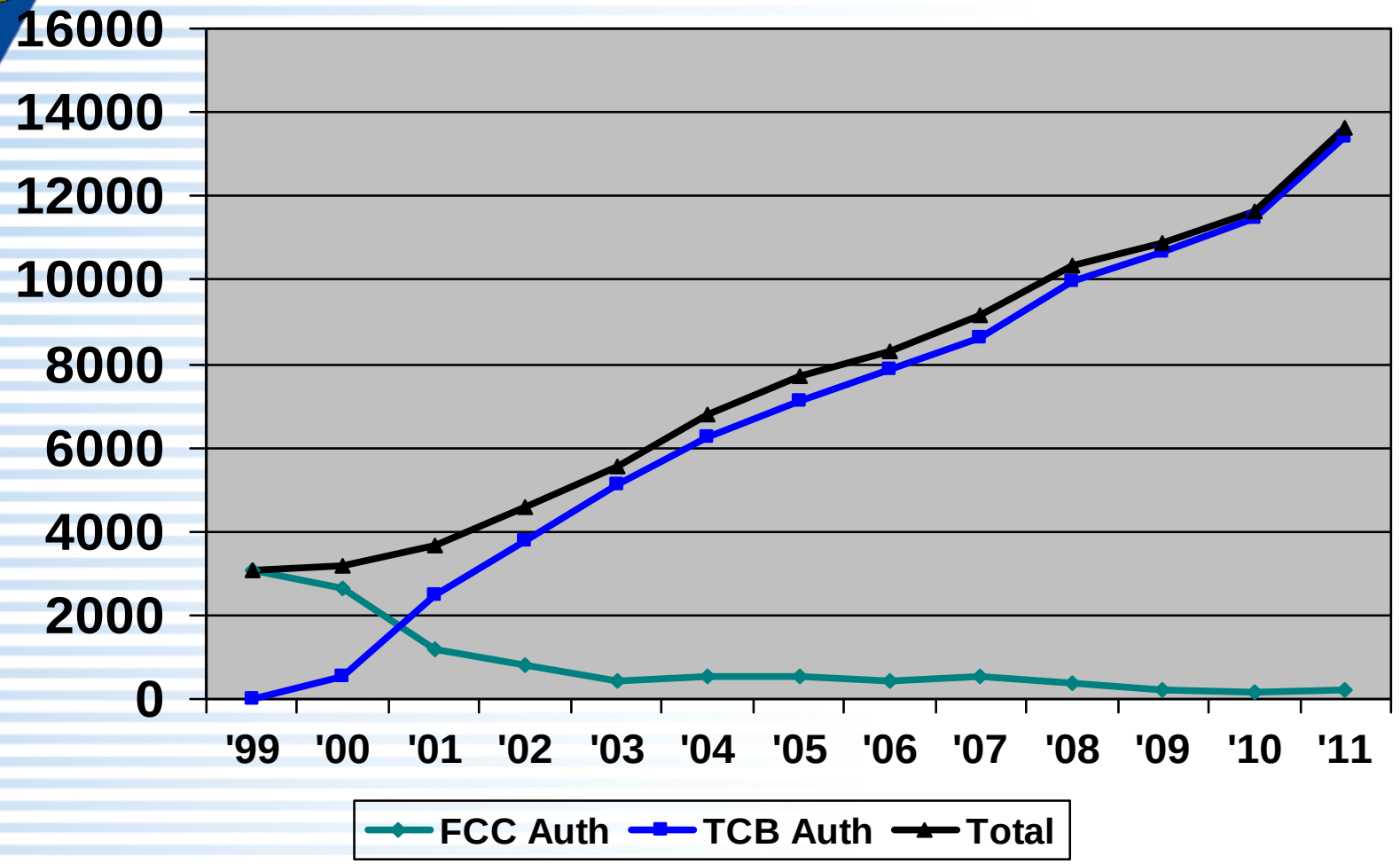
Certification Options



Why Use the Private Sector?

- Speed at which technology is changing
- Technical expertise
- Increase the resources performing conformity assessment
- Shorter product life cycles
- Designed and approved in the same geographic location
- Reduce uncertainty and delay in obtaining certification

Equipment Authorization Certification Trends (1999 – 2011)

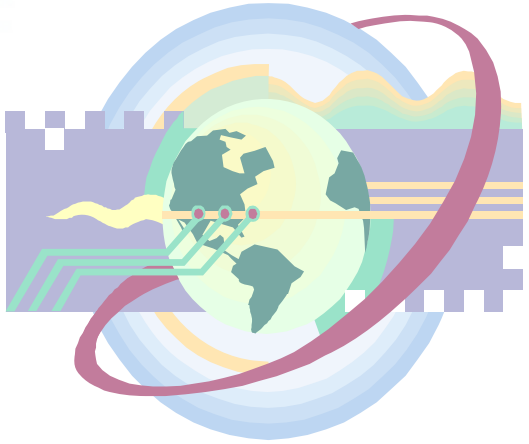


Telecommunications Certification Body (TCB)

- A TCB is an independent third-party certification body (Manufacturers are not permitted to become a TCB)
- Accredited to ISO/IEC Guide 65 and ISO/IEC 17025
- Roles and Responsibilities
  - TCB Scope of Accreditation
  - Evaluation and Decision on Certification
  - Impartiality
  - Testing Capability
  - TCB Post-Market Surveillance
- Foreign entities may become a TCB in accordance with the terms of a government-to-government Mutual Recognition Agreement/Arrangement.

Mutual Recognition Agreements

- Purpose of MRA -- To facilitate trade by allowing Conformity Assessment Bodies (CAB)(*) in one economy to test (Phase I) and/or certify (Phase II) products to the Technical Regulations of another economy.
- Participation in a MRA is voluntary -- however, if a economy agrees to participate in either Phase I and/or Phase II certain rights and obligations in accordance with the terms of the MRA apply.



(*) The general term Conformity Assessment Body (CAB) includes test labs and certification body

FCC Audit and Market Surveillance Program

- Goal of the program:
  - Ensure the Integrity of the Grants
  - Ensure Compliance to the Rules
- Test, Evaluate, and Sample Various Types of Authorized Equipment
  - Pre-grant testing
  - Post grant testing. Test samples from marketplace
  - Random testing
  - Test samples submitted from Enforcement Bureau
  - Identify and investigate New Technologies
  - Complaints received by public and competitors
- Audit TCB Grants
- Assist the Enforcement Effort
  - Joint OET/FCC projects.
- Help US Customs enforce importation rules

Equipment Authorization

- Tremendous growth in equipment approvals, for example, in 2011 the FCC Lab:
  - Processed 200 applications requests
  - Monitored activities of 34(*) TCBs who processed nearly 12000 applications
  - Audited approx. 1000 TCB Grants
  - Responded to approx. 3500 requests for rule and procedure clarifications
- Applications submitted directly to the lab typically involve “new” technology issues and require special processing.
  - TCBs can process applications where the Commission has provided guidance
  - Guidance documents published as KDBs

(*) Currently there are 35 TCBs

Information Sharing

- Upgrading procedures for information sharing and distribution
  - Regular review of current procedures
  - Update of website with better navigation
  - New web based inquirie system:
    - http://www.fcc.gov/labhelp
- Updated Equipment Authorization Webpage
  - FAQ, measurement techniques, explanation of EA programs, filing information, MRAs, TCBs, Staff presentations, EA announcements, etc.
    - http://www.fcc.gov/oet/ea

Questions and Answers

Thanks!

Additional Information about MRA and FCC Conformity Assessment Program

Stake Holders and Functions

- Regulatory Authority (Technical Requirements and Recognition)
- Designating Authority (Designation)
- Accreditation Body (CAB competence)
- Conformity Assessment Bodies (CABs)
  - Testing Laboratory (Testing)
  - Certification Body (Approval)
- Suppliers (producer)
- Consumers (buyer/user)

Identification of Players in the United States

Regulatory Authority (RA)	Federal Communications Commission (FCC)	www.fcc.gov
Designating Authority (DA)	National Institute of Standards and Technology (NIST)	www.nist.gov
Phase 1 – Accreditation Body (AB)	National Voluntary Laboratory Accreditation Program (NVLAP) & American Association of Lab Accreditation (A2LA) ANSI/ASQ National Accreditation Board/ACLASS	www.nist.gov www.a2la.org www.aclasscorp.com
Phase 2 – Accreditation Body (AB)	American National Standards Institute (ANSI) American Association for Laboratory Accreditation (A2LA)	www.ansi.org www.a2la.org

FCC Participates in Five MRAs

- US-EU and EEA EFTA Mutual Recognition Agreement
  - Bi-lateral, multi-sector (6), 27 member states and 3 ETFA member states
- Asia Pacific Economic Co-operation (APEC) Mutual Recognition Arrangement
  - Multi-lateral, single sector, 21 economies
- Inter-American Telecommunication Commission (CITEL) Mutual Recognition Agreement
  - Multi-lateral, single sector, 34 countries
- US-Japan MRA
  - Bi-lateral, Single Sector
- US-Mexico MRA
  - Bi-lateral, Single Sector

MRA Status – Phase I

- Phase I (mutual acceptance of test data) is operational with the following:
  - Australia
  - Canada
  - Chinese Taipei
  - European Union
  - Hong Kong, China
  - Japan
  - Korea
  - Mexico (not operational yet)
  - Singapore
  - Vietnam

MRA Status – Phase I

Region	Number of Labs
North America	111
Europe	43
Asia	135
Middle East	3
Total	292

MRA Status – Phase II

- Phase II (mutual acceptance of approvals) is operational with the following:
  - Canada
  - European Union
  - Hong Kong, China
  - Singapore
  - Japan
- A total of 35 Telecommunication Certification Bodies (TCBs) have been recognized by the FCC.
  - 19 domestic TCBs
  - 16 foreign TCBs (EU-11, Canada-2, Singapore-1, Japan-1, Hong Kong-1)

Additional Information

- FCC Webpage
  - http://www.fcc.gov/oet/ea/mra/
- NIST Webpage
  - http://ts.nist.gov/standards/conformity/mra/mra.cfm