FCC Conformity Assessment Methods

MRA Workshop on Conformity Assessment
May 7, 2009

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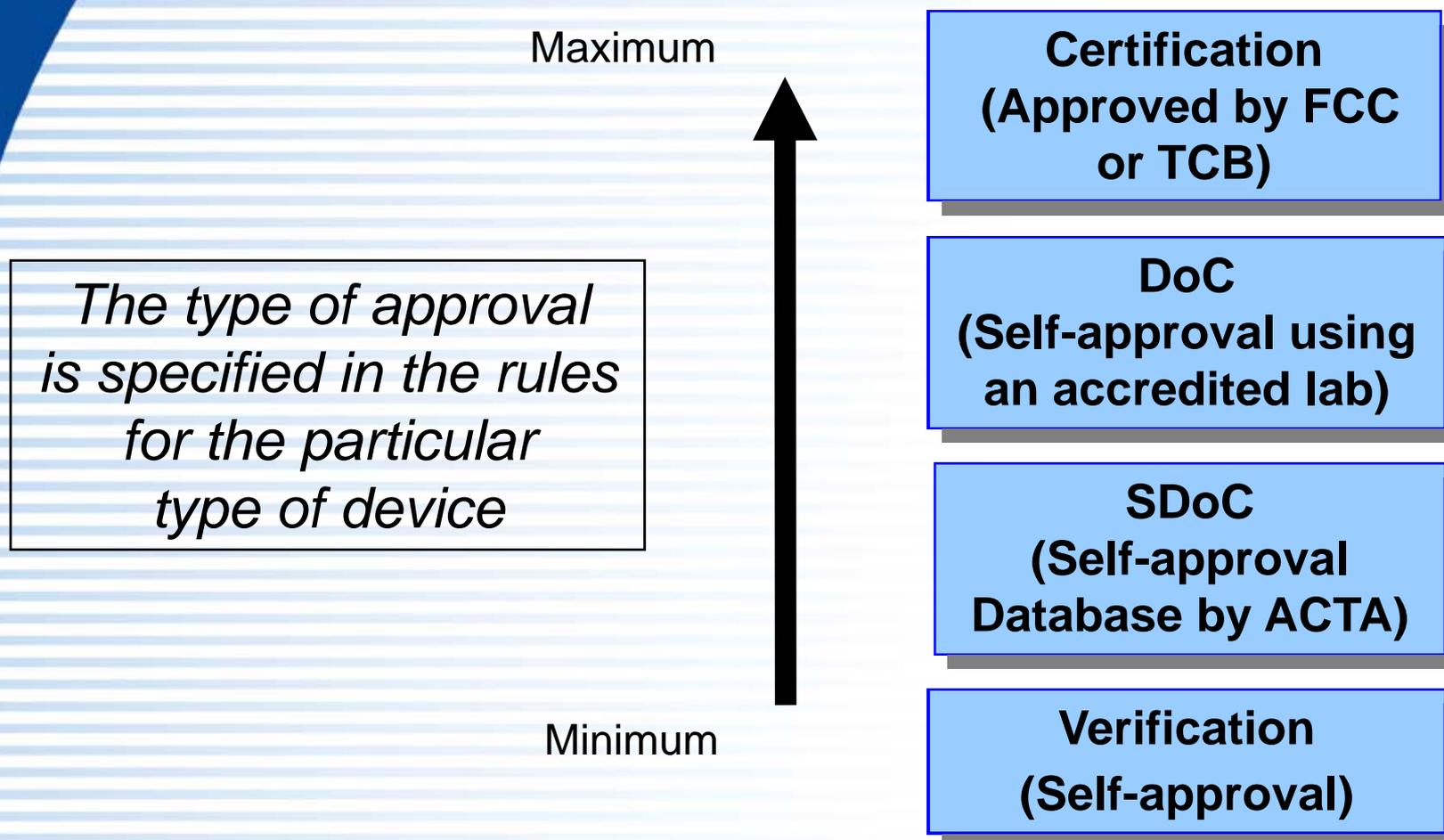Office of Engineering and Technology
Laboratory Division

Equipment Authorization Program

- The FCC currently has four equipment approval programs
  - Verification
  - Supplier Declaration of Conformity (SDoC)
  - Declaration of Conformity (DoC)
  - Certification

- The product approval requirement is specified in the rule part under which equipment operates

- All four programs involve the use of the private sector to varying degrees

Equipment Authorization Program

Maximum

Minimum

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

Certification (Approved by FCC or TCB)

DoC (Self-approval using an accredited lab)

SDoC (Self-approval Database by ACTA)

Verification (Self-approval)

Equipment Authorization Types

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.

Accreditation of Test Laboratories

- Testing performed in support of a Declaration of Conformity must be performed an accredited testing 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
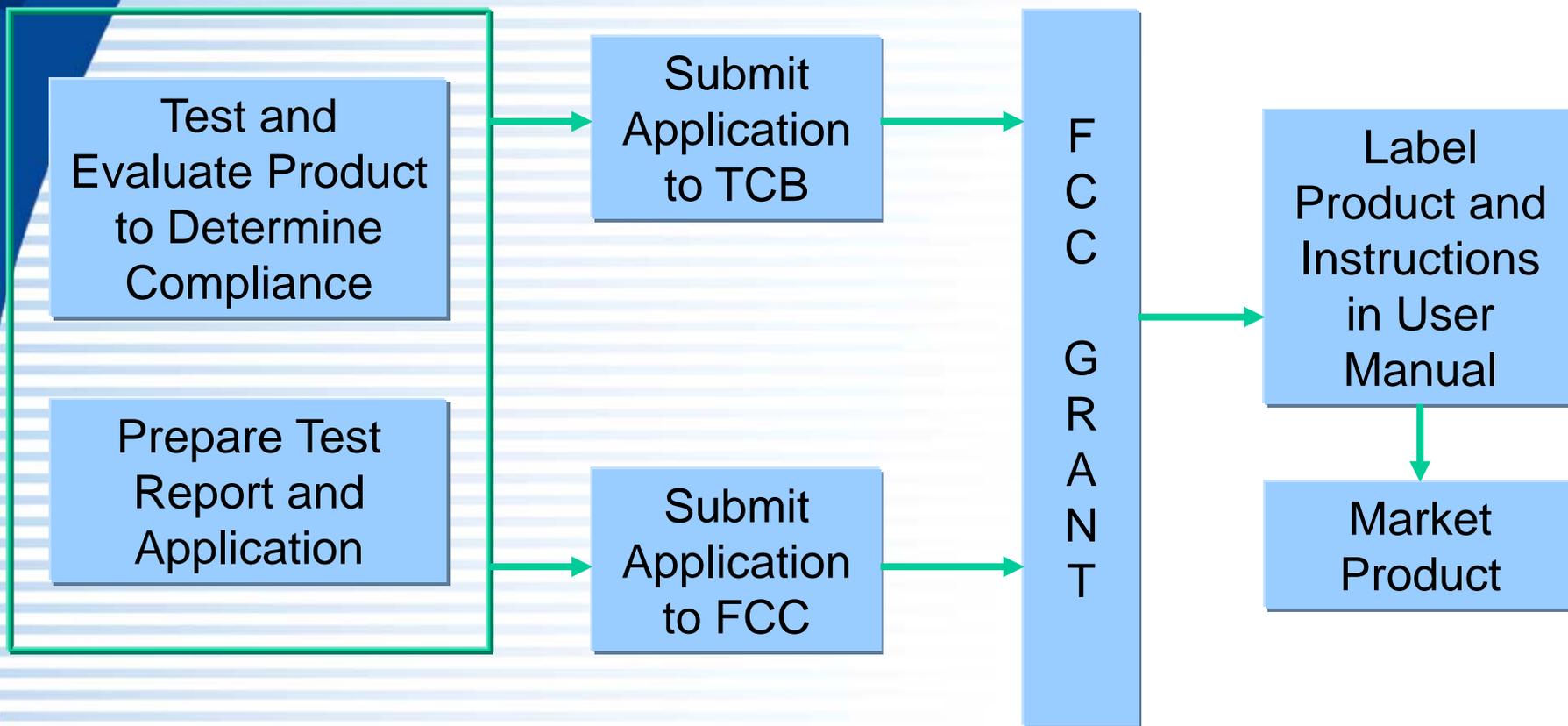
What is a TCB?

- Accredited to ISO/IEC Guide 65 and ISO/IEC 17025

- Is designated and recognized by the FCC to approve equipment subject to certification

- A TCB is an independent third-party certification body (Manufacturers are not permitted to become a TCB)

- Foreign entities may become a TCB in accordance with the terms of a government-to-government Mutual Recognition Agreement/Arrangement.

Certification Options


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┌─────────────────────────┐
│  Test and               │      Submit
│  Evaluate Product       │ →  Application  →
│  to Determine           │      to TCB          ┌───┐
│  Compliance             │                      │ F │        Label
│                         │                      │ C │     Product and
│                         │                      │ C │     Instructions
│                         │                      │   │  →   in User
│  Prepare Test           │                      │ G │        Manual
│  Report and             │      Submit          │ R │          ↓
│  Application            │ →  Application  →    │ A │        Market
│                         │      to FCC          │ N │        Product
└─────────────────────────┘                      │ T │
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TCBs & MRAs

- Landmark FCC Order in 1998 streamlined the equipment authorization program
- Empowered Telecommunications Certification Bodies (TCBs) to certify equipment subject to FCC requirements
- Provided for TCBs outside the U.S. conditioned on Mutual Recognition Agreements (MRAs)
- Provided for recognition of accredited testing laboratories located outside the U.S. for a DoC conditioned on MRAs

FCC MRA Participation

- **US-EU Mutual Recognition Agreement**
  - Bi-lateral, multi-sector

- **US-EFTA Mutual Recognition Agreement**
  - Bi-lateral, multi-sector

- **US-Japan Telecom MRA**
  - Bi-lateral, single sector

- **Asia Pacific Economic Co-operation (APEC) Mutual Recognition Arrangement**
  - Multi-lateral, single sector

- **Inter-American Telecommunication Commission (CITEL) Mutual Recognition Agreement**
  - Multi-lateral, single sector

FCC MRA Webpage

- Organizes all FCC related MRA information in one location:
  - www.fcc.gov/oet/ea/mra
  - Links to agreements
  - Implementation information
    - Accredited CAB requirements
    - Certification Body requirements
      - TCB Guide 65 Checklist
      - TCB Roles and Responsibilities
      - Measure procedures
  - Contact information for stakeholders

Identification of US Players

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

US-EU MRA

- A multi-sector, bilateral agreement that went into effect 12/5/98 covering the following sectors:
  - Telecom
  - EMC
  - Pharmaceuticals
  - Electrical Safety
  - Medical Devices
  - Recreational Crafts

- Purpose:
  - To facilitate trade by promoting acceptance of each party's conformity assessment procedures

US-Japan
Acceptance of Test Results

- Exchange of letters between USTR and MOFA (February 26, 2007)

  - **FCC will accept test results for unintentional radiators and ISM equipment:**
    - From FCC recognized accredited testing labs located in Japan
    - Recognition based on designation of Japanese testing labs accredited to ISO/IEC 17025 and relevant FCC requirements
    - Accreditation may be performed by VLAC, JAB or other accreditation bodies (A2LA and NVLAP)

  - **VCCI will accept test reports from testing labs located in the U.S.**
    - Based on accreditation by NVLAP or A2LA
    - Accreditation to ISO/IEC 17025 and relevant VCCI requirements
    - Testing lab is either a regular or supporting member of VCCI

US-Japan Telecom MRA

- **Scope: Telecommunications terminal equipment and radio equipment**
- **Entry into force**
  - Signed February 16, 2007 in Washington, D.C. by officials of the U.S. and Japan
  - Japan's Parliament (Diet) approved the MRA – June 19, 2007
  - Exchange of diplomatic notes – December 2007
    - Official implementation date January 1, 2008
- **Information on US-Japan MRA:**
  - http://ts.nist.gov/Standards/Global/mra_rebuild_japan.cfm
  - http://www.fcc.gov/oet/ea/mra/Japan.html

APEC Tel MRA Status – Phase I

- Phase I (mutual acceptance of test data) is operational with the following:
  - Australia - 2
  - Canada - 9
  - Chinese Taipei - 38
  - Hong Kong - 2
  - Korea - 26
  - Singapore - 2
  - Vietnam - 0

APEC Tel MRA Status – Phase I

- South Korea
  - Korea Standards update January 2009
    - http://ts.nist.gov/Standards/Conformity/mra/specific_req_RRL.cfm
- Vietnam
  - NIST accepting applications for CABs seeking Phase I recognition April 1, 2009

FCC Recognized Accredited Labs

Region	Number of Labs
North America	96
Europe	50
Asia	124
Other	3
Total	273

FCC Recognized Certification Bodies

- **Operational**
  - Canada
  - European Union
  - Singapore
- **Pending**
  - Hong Kong
    - ANSI and A2LA recognized by NIST NVCASE program.
    - Phase II CABs seeking Hong Kong, China recognition may submit applications to NIST June 1, 2009.
  - Japan
    - Official January 1, 2008
    - Tokyo Training March 3-4, 2009
- **Total of 33 TCBs have been recognized by the FCC**
  - United States – 18
  - Europe – 12
  - Canada – 2
  - Singapore – 1

Conformity Assessment Challenges

- Regulatory Certainty
- Assessing Competency
- Complexity of Equipment
- Keeping Pace with Technology
- Social and Environmental
- Harmonization of Technical Requirements

Sharing Information

- **How can we better share information with all stakeholders?**
  - Webpage
  - Knowledge Database
  - Standards Activity
  - Training Venues
  - RSS Feeds
  - Wiki

Thank You

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