



Equipment Authorization Issues Roundtable Discussions

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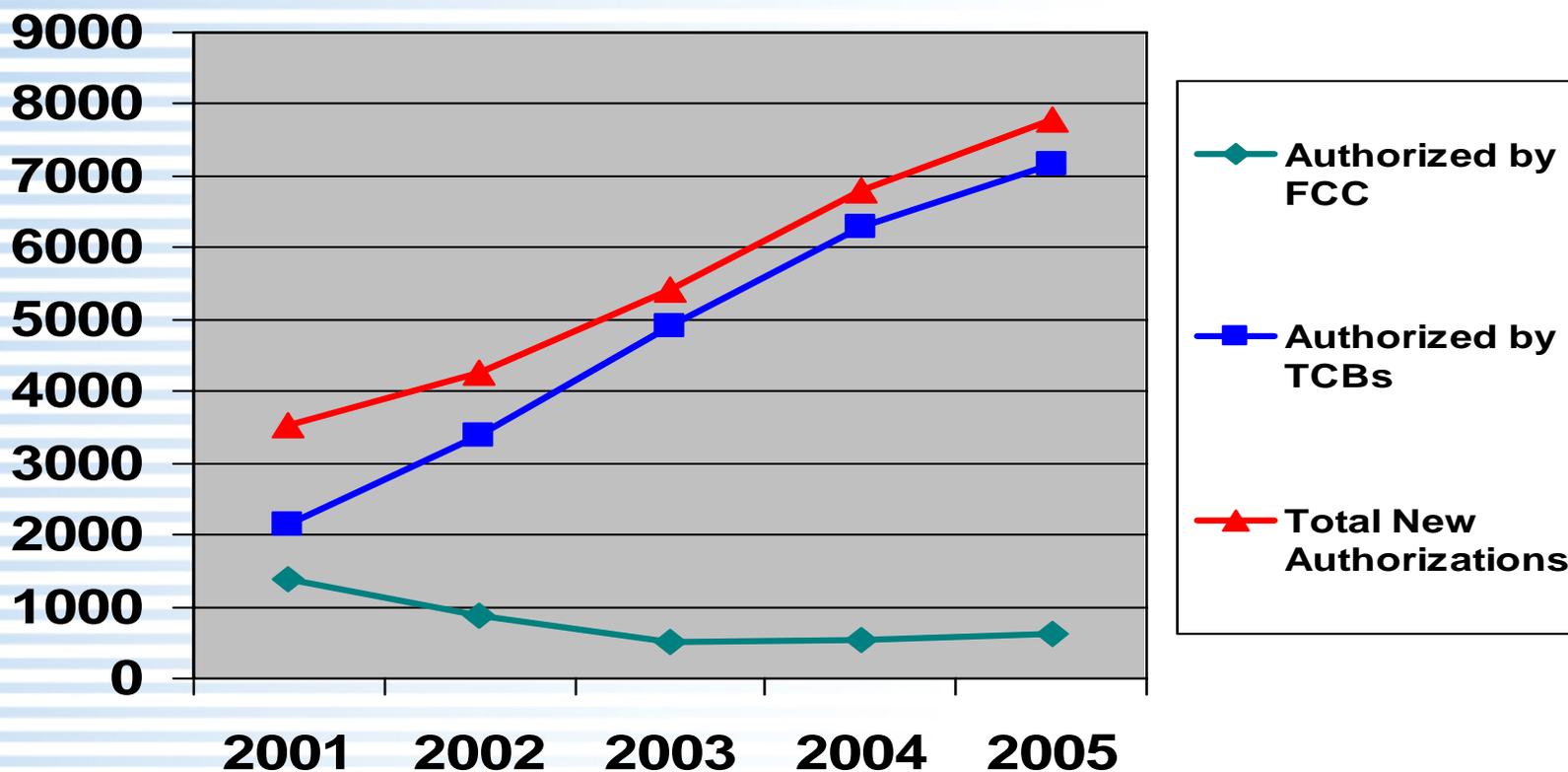


Topics for Discussions

- Administrative Issues
- Software Defined Radio Rules
- WiMax Questions
- Broadband Over Powerline Rules
- DFS Application Requirements
- RF Exposure Issues
 - General
 - 3G Technologies
- Hearing Aid Compatibility



Equipment Authorization Trends





Administrative Issues / EAS Confidentiality



Permanent Confidentiality

● ***Eligible***

- Schematic Diagrams
- Detailed Block Diagrams
- Operational Description
- Parts Lists
- Tune-up Procedures

● ***“Optionally” Eligible with Additional Justification***

- Internal Photos (permanently mounted /sealed, not generally publicly accessible)
- User’s Manual (highly technical, not serviceable by consumer; not provided to consumer; provided to consumer based on non-disclosure agreement)



Permanent Confidentiality (cont'd)

● ***Not Eligible***

- Test Reports
- RF Exposure Test Reports
- External Photos
- FCC ID Labels
- Attestation Statements
- Cover Letters
- Test set-up Photos
- Correspondence

● ***Always Confidential (No Fee Necessary)***

- SDR Technical / Operational Description
- Scanning Receivers (schematic diagrams, block diagrams, operational descriptions, parts lists, tune-up procedures and internal photos)



Short-Term Confidentiality

- ***May be applied to all Exhibits eligible for***
 - Schematics, Block Diagrams, Operational Description, Parts Lists, Tune-up Procedures
 - Only one confidentiality can be applied per attachment exhibit (i.e. Confidential or Short-Term Confidential)

- ***Additional Exhibits***
 - Internal Photos
 - User's Manual
 - External Photos
 - Test Set-up Photos



Short Term Confidentiality

- Granted for 45 calendar day increments from the date of grant
- Extend within the 45 calendar day period
 - Encourage applicant's diligence in requesting timely extensions
- Maximum 180 calendar days from day of grant (4 X 45 days)
- Release information to the public immediately when marketing begins



Confidentiality Request Process

- **Form 731 – check “Yes” box for Confidentiality Requested**
- **At “Add Attachments” Check All Exhibits Requested**
 - Check only one—Confidential or Short-Term Confidential
- **Upload Justification Letter (Cover Letters)**
 - Letter Dated / Signed with FCCID & TC#
 - List of Exhibits to be held Confidential or Short Term Confidential
 - Justification
 - Reference Rule Parts 0.457 and 0.459
 - State the information has not been made publicly available
 - State reason for request (proprietary, trade secret, etc.)



Post-Grant Confidentiality

- **Confirm with the applicant the need to mark information confidential *before* grant**
- ***Request made for Post-Grant Confidentiality within 30 days – standard procedure for corrections (TCB responsibility)***
- ***Request made for Post-Grant Confidentiality 30 days or more after grant (FCC must approve) –***
 - Request “audit” mode through easadmin@fcc.gov with justification
 - Upload into Cover Letters
 - Exhibit requesting application (with FCCID & TC#) be put into “audit” mode
 - Justification letter for confidentiality if not already in application
 - Written / dated request with FCCID and TC#
 - Include justification for correction
 - Include documentation from applicant or applicant’s agent of awareness that information has been publicly available



Grantee Code Information Review

- ***Review all Grantee Code information for correctness and completeness***
 - Applicant Name and address
 - Contact Name & Title, E-mail, phone, fax
- ***Contact applicant if in error***
- ***Direct applicant to make changes at EAS Web site Modify Grantee Information***



Form 731 / EAS Changes

- ***New Web form released early January 2006***
 - Scope, Rule Part, and Equipment Class can now be modified by the TCB
 - Enhanced validity checking
- ***FRN validity checks now available between 1 a.m. and 4 a.m. except Sunday***



Software Defined Radios

Key Issues



Software-Defined Radios

- SDR for the purposes of the new regulation are:
 - Radios whose operating parameters (frequency range, modulation type or maximum output power), or the circumstances under which the transmitter operates in accordance with Commission rules, can be changed, at least in part, through software changes alone



FCC Rules for SDRs

- If the manufacturer maintains complete control of the software, the device does not have to be declared SDR
- If 3rd party or end-user can modify the operation or download software that controls the RF parameters:
 - Device **must** be declared SDR
 - TCBs are not permitted to authorize such radios
 - Professional installers or Qualified Personnel are considered 3rd parties
 - Part 15 client devices operating under control of a master are exempted under certain circumstances



SDRs in Master – Client devices

- Master Devices – (capable of transmitting without receiving an enabling signal)
 - Must operate in U.S. solely in Part 15 frequencies and power limits
 - If software used to configure country of operation by 3rd party, must certify as SDR
- Client Devices – capable of transmitting only under control of master device that limits to Part 15 frequencies do not need to be certified as SDR
 - However, if 3rd party software changes can be made to power or other operating parameters, must certify as SDR
- Applies to various Wi-Fi devices, Cordless phones (UPCS), other similar systems



SDR Applications – Additional Requirements

- Software Description
 - The way different software versions are put into service.
 - The security procedures used to ensure only authorized changes are made to the software that controls RF parameters
 - Statement on how open source is the development system, etc

- Description of the security procedures used to distribute the different software versions to third parties.
 - Security method used: licensing procedures; encrypted key authentication procedures; embedded hardware based authentication, virtual private networks, etc.

- Description of the repair process by authorized third parties that can also load or re- load the different software versions



SDR or not SDR?

- Review the Operations Manual and Users Manual to determine if the SDR rules apply
- If not sure, question the Grantee
 - Do not assume
- If in doubt, ask the FCC prior to issuing a grant
 - Do not interpret



FCC Rules and WiMax Devices



FCC Rules

- FCC does not have specific rules for WiMax Devices
- WiMax has defined several profiles based on IEEE 802.16 standard
- Each of the profile operate in different band and FCC rules for that band apply to operation for that profile



WiMax Profiles

- 3 common profiles are for operation in:
 - 2496 – 2690 MHz band
 - Part 27 Rules (BRS) for licensed Service apply
 - 3650 -3700 MHz
 - Part 90 Rules apply(*)
 - 5.8 GHz
 - Part 15 Rules apply
- (*) Currently there are several petitions for reconsideration for this rule part, and equipment authorization depends on resolution of some of these issues;
 - TCBs cannot authorize equipment in 3650 MHz band