



Hewlett-Packard Company
Corporate External Standards

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Abstract:

Hewlett-Packard proposes that TIA committee TR-41.11 take on a project to formally recommend to the Administrative Council for Terminal Attachment (ACTA) how it might specify the creation and maintenance of a telecom terminal equipment (TTE) database as mandated by the Federal Communications Commission (FCC). This proposal includes a review of the FCC Report & Order where this database was ordered, and proposes a series of requirements for inclusion in a specification document. These requirements are written in a format very close to that of a standard TIA Telecom Services Bulletin (TSB) in the hope that this will simplify the document creation.

Proposal for a TTE Database Specification

20 April 2001
Scott Roleson & David Ling
Hewlett-Packard Company

Introduction

In its Part 68 streamlining Report & Order¹ and the subsequent revision of its rules in 47CFR Part 68, the Federal Communications Commission (FCC) required the Administrative Council for Terminal Attachment (ACTA) to create, manage, and maintain a database of telecom terminal equipment (TTE).

Hewlett-Packard would like to propose that TIA subcommittee TR-41.11 undertake a project to write a TTE database specification to assist the ACTA in this task and to help insure that the database will be designed in such a way that is both appropriate and efficient. While this document will not attempt to require that the ACTA adopt any particular database vendor, software, or methodology, it will specify general criteria, content, format, and supporting criteria necessary for this database to be successful. HP believes it is in the enlightened self interest of the TR-41.11 members to take on this task, and stands ready to assist in this endeavor.

The FCC Mandate

The ACTA mandate for this TTE database springs from the aforementioned FCC Order, and the revised Part 68 rules that resulted, specifically Subpart G, Section 68.610 (which is attached as Annex A for convenience). Previously, the FCC maintained a database of registered or certified TTE, which has grown to include some 30,000 records. They continue to believe that a TTE database is "essential to protecting the public interest" because it will permit consumers, telecom providers, and the FCC's enforcement activities to track, identify, and hold accountable suppliers or importers of non-compliant equipment. Indeed, TIA previously argued that the database and its details are better left to the ACTA, and the FCC believes that industry will be in a better position to deal with the database. Consequently, the FCC's declared its intention to discontinue their involvement with this database and transfer responsibility for it to the ACTA. Finally, they left open the possibility for the ACTA to consider integrating the TTE database with a global database of compliance information in order to facilitate trade, enhance competitiveness, or reduce costs.

¹ "2000 Biennial Regulatory Review of Part 68 of the Commission's Rules and Regulations," FCC 00-400, Docket 99-216, released 21 December 2000, also published in the Federal Register Vol 66, No. 16, 24 Jan 2001, pp. 7579-7589. The original Order as released is available at:
http://www.fcc.gov/Bureaus/Common_Carrier/2000/fcc00400.doc

In summary, the FCC asked the ACTA for the following:

- 1) The ACTA shall operate and maintain a database of *all TTE* (including the existing TTE database) which will:
 - a) Meet all FCC requirements and U.S. Customs service enforcement needs.
 - b) Be freely accessible to the U.S. government
 - c) Be readily available to the public and accessible by the disabled at nominal or no cost.
 - d) Be created and maintained in an equitable and non-discriminatory manner, affording competitive advantage to no entity or industry segment.
- 2) By 23 July 2001 (180 days after the Order was published in the Federal Register), the ACTA is to file with the FCC a detailed report on the database giving:
 - a) The database's structure.
 - b) How the ACTA intends to administer the database.
 - c) What will be included and the procedures for including compliance information.
 - d) How the government and public will access the database information.

The Confidentiality Issue

HP acknowledges the FCC's belief that to make the TTE database information readily available to itself, the U.S. Customs Service, service providers, and consumers is in the public interest. However, we are also very sensitive to the need for manufacturers to protect new product information as essential. HP believes it is vital that information about new products not become public prematurely or be available in excess of what is minimally necessary. We believe this position is in line with the FCC rule Section 68.610(d) which says that the database shall "...Be created and maintained in an equitable and non-discriminatory manner, affording competitive advantage to no entity or industry segment."

Consequently, to strike an appropriate balance between these needs, HP is proposing that the new TTE database provide for the incorporation of new TTE product data first into private, protected space, accessible only to the manufacturer or supplier. Transference of these data from the private to public space must be entirely under the control and discretion of the manufacturer or supplier.

Furthermore, we believe that the database should include only that information necessary to adequately identify the equipment and the responsible party, and that all technical information be limited to that specified in the PN3-0014/TSB-168 document. This should be quite sufficient to meet the FCC's wish to serve the public interest. Detailed technical information about the product or its test results would of course be made available to the FCC on request, but it's not necessary nor desirable to include this in the publically accessible database.

HP's Proposal

It is Hewlett-Packard's belief that this situation affords industry with a unique opportunity to make a positive contribution to the interests of both industry and the public. To maximise this

contribution, HP believes the database should be flexible, easy to use and maintain, and strike an appropriate balance between meeting the needs of those who would access the database and a manufacturer's need to protect competitive product information.

HP also recognizes the ACTA's need to implement a database in time to meet the FCC's 23 July reporting requirement, and that this brief schedule may stimulate quick decisions that may be seen as unrefined or even short-sighted in hindsight. However, HP also believes that integrating the TTE database with a global database of compliance information has significant potential benefits and that this opportunity must be preserved - Nothing should be done to make this difficult or impossible later.

With these goals in mind, Hewlett-Packard believes that the ACTA would welcome the assistance of TR-41.11, and that the best way for TR-41.11 to help is to create a "Database Specification" that itemizes essential parameters and characteristics. HP suggests that this specification include the following:

1. GENERAL REQUIREMENTS

1.1 Fundamental Requirements

The telecom terminal equipment (TTE) database shall meet the following fundamental requirements as specified by the FCC rules in 47CFR Section 68.610:

- a) Meet all FCC requirements and U.S. Customs service enforcement needs.
- b) Be freely accessible to U.S. government agencies and commissions.
- c) Be readily available to the public and accessible by the disabled at nominal or no cost.
- d) Be created and maintained in an equitable and non-discriminatory manner, affording competitive advantage to no entity or industry segment.

It is assumed in this document that the most direct and expeditious way to meet these fundamental requirements is to have the database resident on an Internet-connected server. The rest of this document is written with this assumption as a starting point.

Furthermore, the database shall be constructed in a manner that balances the needs specified in Section 68.610 while also preserving the right of a manufacturer/supplier to protect competitive product information. Technical information included in the database shall be limited to that specified by TIA/EIA-TSB-168, "Telecommunications, Telephone Terminal Equipment, Labeling Requirements."

1.2 The Database Administrator

The database administrator referred to in this document is the entity, organization, or individual charged by the ACTA with the creation and administration of the TTE database. Options available to the ACTA include designating a subcommittee of itself or contracting this responsibility to an independent organization.

The database administrator is responsible directly to the ACTA.

1.3 The Legacy Database

The ACTA was charged by the FCC to create and maintain a TTE database that included all previously registered or certified equipment. However, the new and legacy databases may be managed separately. In other words, the database administrator need not be constrained by the existing FCC terminal equipment database in creating a database for new equipment. However, no more than two independent databases may be employed to encompass all approved equipment.

1.4 Data security and backup

At the database administrator's expense, an appropriate backup system shall be maintained that will allow restoration of the database so that no more than the previous 24 hours of entered data may be lost. The database server shall be housed in a secure environment, with controlled personnel access. Telecommunications network security will be provided by a "firewall" or equivalent that will insure access only by those with the appropriate need. Account holders will only have access to their own private account information.

1.5 Customer Support

The database administrator shall provide customer support services to manufacturers, carriers, and general public with response time of no more than ____ hours/day. To the extent that is readily achievable, this support shall be accessible to persons with disabilities (e.g.: provision of TDD access).

1.6 Service Interruption

The database Web site shall be available to users a minimum of 95% of the time during any 24 hour period, 99% of the time during any 30 day period; and there will be no interruptions in public accessibility to the Web site that exceeds one 1 continuous hour. Furthermore, if the database server becomes unavailable to users, other than for scheduled maintenance, the database administrator shall have qualified personnel respond in the form of on premises service call within one (1) hours of notification of such unavailability and shall, to the extent reasonably practicable, remedy the unavailability such that the service interruption specified above is not exceeded.

1.7 Server Response Time

The server shall have a response time, measured at the server, from the receipt at the server of a request until the commencement of the responsive transmission from the server, of no more than one (1) second.

2. USER INTERFACE - GENERAL

2.1 Compatibility

The database shall be compatible with TIA/EIA-TSB-168, "Telecommunications, Telephone Terminal Equipment, Labeling Requirements." Specifically, it shall have a field in each record for the equipment identification code, and shall allow a user to search on this ID.

2.2 Financial transactions

As indicated above, access to the database by entities of the U.S. government (specifically the FCC and U.S. Customs Service) shall be free of charge. Manufacturers, suppliers, service providers, consumers, and the general public may be charged a nominal fee for access with the approval of the ACTA. The database user interface shall provide for these transactions with the following additional capabilities:

- a) Secure delivery of all payment information.
- b) Ability to handle either single or recurring payments.
- c) Delivery or other provision for a receipt or other proof-of-payment.
- d) Enable users to review their payment history and account balances.
- e) Support secure payment by credit cards.

2.3 Accessibility

The database and its user interface shall be accessible to persons with disabilities to the extent that is readily achievable, as defined by the current Accessibility Guidelines of the World Wide Web Consortium (W3C).

Note: These guidelines are available at the W3C web site: <http://www.w3.org/>

3. USER INTERFACE - MANUFACTURERS/SUPPLIERS

The database shall have a Web-enabled interface for TTE manufacturers or suppliers. This interface shall provide for:

3.1 Account Management:

- a) On-line manufacturer/supplier account activation and deactivation.
- b) Profile management that allows manufacturer/supplier to update or change any part or all of their user profile, including global changes of any repeated info.
- c) Authorized use management that allows the manufacturer/supplier account manager to add, modify, or delete authorized representatives.
- d) Selection and periodic changing access password

3.2 Product Listings Management

- a) Tracking of all records entered for a given manufacturer/supplier.
- b) Complete data entries in all required fields of information.
- c) Directory and pull-down of Grantee code list, and option for new manufacturers to request Grantee Code on-line.

- d) Manufacturer/supplier to input information such as Equipment Code, Ringer Equivalency Number, Product Identifier, SDoC or TCB Grant, and equipment ID code as per TIA/EIA TSB-168.
- e) Flexible input/output of product listing info - The data entry scheme will allow pull-down menus or “free-form” alphanumeric entries, and optional information fields as appropriate.
- f) "Draft" or prototype TTE record entries, so records do not become public until the manufacturer/supplier specifically designates them as public.
- g) Leveraging of product listing data entry (to avoid data entry duplication).
- h) Product listing entry will support:
 - ◆ Per listing data entry.
 - ◆ Entry by template, where the template is derived from an existing listing.
 - ◆ Linking to existing listings.
 - ◆ File uploading, downloading, and linking.

4. USER INTERFACE - GOVERNMENT, SERVICE PROVIDERS, CONSUMERS, OR THE GENERAL PUBLIC

The user interface available to government, service providers, customers and the general public shall allow the user to:

- a) List all products and companies by product type, equipment code, or manufacturer/supplier (e.g., Grantee Code).
- b) Search all products and companies by product type, equipment code, or manufacturer/supplier (e.g., Grantee Code).
- c) Supports e-mail links with manufacturer/supplier accountable party for assistance.

5. OPTIONAL BUT DESIRABLE DATABASE FEATURES

If possible, the database administrator is encouraged to provide the following optional features:

- a) Interface for communicating new and revised regulatory requirements, with file download capability when appropriate.
- b) Listings of company and regulatory contact information.
- c) Support for discussion groups based on similar user needs and interests.
- d) General news, updates, calendar.
- e) Scalability - The database should have the ability to scale upward to meet anticipated future regulatory needs, and to expand to meet the needs of other regulatory agencies.

6. REQUIREMENTS ON THE DATABASE ADMINISTRATOR

6.1 Conflict of Interest

The database administrator shall disclose any possible conflict of interest, known or suspected, now and in the future, that might limit, restrict or impair the rights granted to ACTA. Specifically, the database administrator should warrant that there is no outstanding contract, commitment or agreement to which database administrator is a party, or knowingly engage any legal impediment of any kind that conflicts with its ability to develop and host the “TTE Database,” or that might limit, restrict or impair the rights granted to ACTA.

6.2 Work Product Warranties

The database administrator should warrant that any Work Product, Tools or database administrator-made changes to the Content shall not:

- a) Infringe on the Intellectual Property Rights of any third party or any rights of publicity or privacy;
- b) Violate any law, statute, ordinance or regulation (including without limitation the laws and regulations governing export control, unfair competition, anti-discrimination or false advertising);
- c) Be defamatory, trade libelous, unlawfully threatening or unlawfully harassing;
- d) Be obscene, child pornographic or indecent; and
- e) Contain any viruses, Trojan horses, trap doors, back doors, Easter eggs, worms, time bombs, cancelbots or other computer programming routines that are intended to damage, detrimentally interfere with, surreptitiously intercept or expropriate any system, data or personal information.

6.3 Termination

In the event of expiration or termination, the database administrator shall:

- a) Keep the database Web site open and accessible for a period of 90 days following the date of termination of the Agreement with the ACTA;
- b) If the transfer requires a change in the domain name, immediately upon the date that the database Web site is no longer publicly accessible, and for a period of 12 months thereafter, maintain the Web site's URL and, at such URL, provide 1 page (including a hypertext link) that ACTA may use to direct its users to its new database Web site or some other URL of the ACTA's choosing;
- c) If the transfer does not require a change in the domain name, cooperate with the ACTA in assigning a new IP address to the domain name as the ACTA may request and transferring all operations of the database Web site to a new database administrator
- d) Database administrator at its expense shall make a complete electronic copy of the contents of the database Web site on the last day of its operation, and shall deliver this to the ACTA.

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Annex A: The Database Mandate & FCC Clarification

From the FCC Rules, 47CFR, §68.610, "Database of terminal equipment":

- (a) The Administrative Council for Terminal Attachments shall operate and maintain a database of all approved terminal equipment. The database shall meet the requirements of the Federal Communications Commission and the U.S. Customs Service for enforcement purposes. The database shall be accessible by government agencies free of charge. Information in the database shall be readily available and accessible to the public, including individuals with disabilities, at nominal or no costs.
- (b) Responsible parties, whether they obtain their approval from a Telecommunications Certification Body or utilized the Supplier's Declaration of Conformity process, shall submit to the database administrator all information required by the Administrative Council for Terminal Attachments.
- (c) The Administrative Council for Terminal Attachments shall ensure that the database is created and maintained in an equitable and nondiscriminatory manner. The manner in which the database is created and maintained shall not permit any entity or segment of the industry to gain a competitive advantage.
- (d) The Administrative Council shall file with the Commission, within 180 days of publication of these rules in the Federal Register, a detailed report of the structure of the database, including details of how the Administrative Council will administer the database, the pertinent information to be included in the database, procedures for including compliance information in the database, and details regarding how the government and the public will access the information.

Note: The due date for this detailed report in (d) above turns out to be 23 July 2001.

The FCC further clarified their intent in the Report & Order by saying (in paragraphs 107-110):

107. In the Notice, we tentatively concluded that a database of all registered terminal equipment should be maintained, regardless of whether the equipment is approved by a TCB or some form of declaration of conformity. We proposed that a private entity assume responsibility for sponsoring and maintaining a database that would replace the Commission's current database of Part 68 registrations. The Commission's database of approximately 30,000 Part 68 registrations contains equipment identification information, applicant identity, and technical information. In order to ensure that the database has sufficient information to support re-registrations, to respond to inquiries from U.S. (and foreign) customs services as to the validity of registrations, and to respond to consumer inquiries regarding the identity of the supplier of a particular piece of terminal equipment, we currently require TCBs to use Form 730 to submit information to the Commission on approved equipment. We proposed in the Notice that, once this Commission is no longer engaged directly in registering terminal equipment, we cease our direct involvement in this area and no longer require TCBs to submit any information directly to this Commission or to use Form 730. We sought comment on what information we should require to be submitted into a national database by parties using suppliers' declaration of conformity procedures, and how that information would be submitted. In addition, we proposed that entities obtaining equipment approval be required to submit pertinent information regarding their identity and approved equipment to a database administrator. Furthermore, we proposed requiring that the database of approved terminal equipment remain accurate and readily available at a reasonable cost to users.

108. In light of our efforts to privatize the equipment approval process, we agree with Nortel, ITI, and other commenters that it will no longer be necessary for this Commission to maintain a database of compliant equipment. We are convinced, however, that the continuation of a uniform, nationwide

database is essential to protecting the public interest. Such a database will permit interested parties such as the Commission, providers of telecommunications, and consumers to track and identify suppliers or importers of non-compliant equipment. As such, the database should ameliorate concerns regarding the potentially adverse impact of non-compliant terminal equipment on the PSTN by ensuring that suppliers are held accountable for any damage their equipment may cause to the PSTN. Thus, we adopt our tentative conclusion that a nationwide database of all approved terminal equipment should be maintained, regardless of whether the equipment is approved by a TCB or through the SDoC process. In lieu of the Commission continuing to maintain and manage the database of all terminal equipment, we agree with the majority of commenters that the Administrative Council should assume these responsibilities. We find compelling TIA's argument that the details of the database structure, content, and maintenance are better left to the Administrative Council to establish. We believe that, after privatizing the registration process, industry will be in a better position than the Commission to assess the database requirements and to develop and implement such requirements and accompanying procedures.

109. We note that several commenters suggest that the database be maintained on, and be accessible through, the Internet. A Web-based database would serve to reduce administrative costs and ensure accessibility to the database information by all interested parties. Moreover, we agree with commenters that the accuracy of the database can be best achieved by limiting the required information and by using electronic filing procedures. Accordingly, we require the Administrative Council to devise a centralized, accurate database that is readily available and accessible to the public, including individuals with disabilities, at nominal or no costs. In addition, we believe that entities submitting information to the database, whether they obtained their approval from a TCB or utilized the SDoC process, should submit pertinent information regarding their identity and approved equipment to the database administrator.

110. We also charge the Administrative Council with the responsibility to ensure that the database is created and maintained in an equitable and nondiscriminatory manner. The manner in which the database is created and maintained must not permit any entity or segment of the industry to gain a competitive advantage. We note that GTE suggests that Form 730, which we currently require TCBs to utilize, could be expanded to develop and maintain a database. As we discuss below, while the continued use of Form 730 is permitted, we only require that the database contain sufficient information for providers of telecommunications, this Commission, and the U.S. Customs Service to carry out their functions. The database shall be available to the Commission and the U.S. Customs Service at no cost. We defer to the Administrative Council to consider ITI's proposal to integrate the terminal equipment database with a global database of compliance information in order to facilitate trade, enhance the competitiveness of US industry, and reduce the cost and burden for suppliers, customers, and regulators.

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