

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of:

Amendment of the Commission’s *Ex Parte* Rules  
and Other Procedural Rules

GC Docket No. 10-43

Amendment of Certain of the Commission’s  
Part 1 Rules of Practice and Procedure and  
Part 0 Rules of Commission Organization

GC Docket No. 10-44

COMMENTS OF PIERRE DE VRIES

May 9, 2010

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## I. INTRODUCTION

My name is Pierre de Vries. I am a Senior Adjunct Fellow at the Silicon Flatirons Center for Law, Technology and Entrepreneurship at the University of Colorado, Boulder, and a Research Fellow at the Economic Policy Research Center at the University of Washington, Seattle. I previously held the position of Senior Director of Advanced Technology and Policy at Microsoft Corporation, Redmond, Washington. The views I express here are my own and do not necessarily reflect the views of any entity with which I am affiliated.

I submit these comments as a scholar who uses information associated with filings to analyze the social dynamics of FCC lobbying. For example, Figure 1 shows all links between organizations that interacted with the FCC on proceeding 01-92<sup>1</sup> over the period 2001 to 2008.<sup>2</sup> A link is deemed to exist between two organizations if both their names appear on a particular filing on a given date. Filings include comments and notices of *ex parte* meetings, among other documents. If organizations have filed jointly more than once, the line connecting them is darker. This chart is a synopsis; the underlying data contains day-by-day changes. Node size is proportional to the total number of filings that

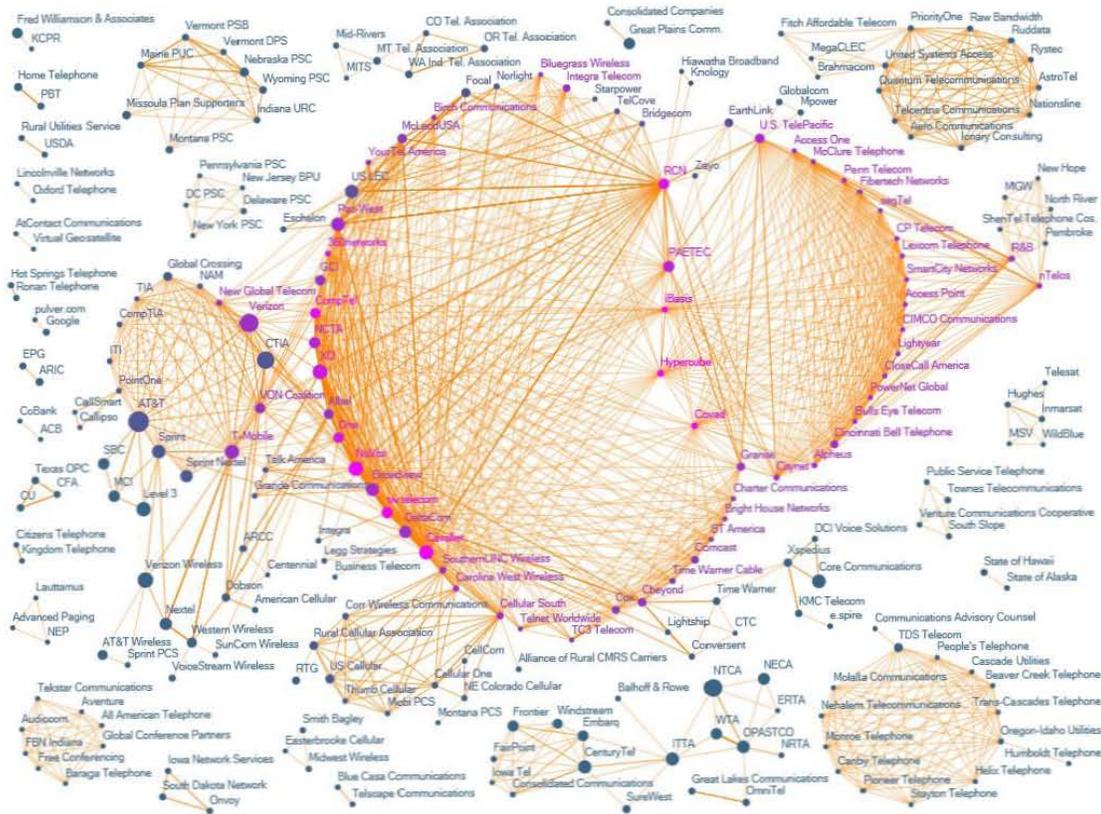
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<sup>1</sup> Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, NPRM adopted April 19, 2001

<sup>2</sup> For a slide presentation explaining this work, see <http://www.slideshare.net/pierredv/social-graphs-of-fcc-lobbying>

an organization made, and is a proxy for lobbying investment; the color of a node indicates the influence of a filer in terms of its connections to other influential nodes.

Such graphs can improve public understanding and rule making since they represent real-world behavior. For example, they can be used to discern the structure and evolution of a proceeding at a glance; to identify *de facto* coalitions, and influential entities that bridge between coalitions; and to track the emergence or breakdown of consensus in a proceeding.



**Figure 1: Social network formed by joint lobbying of FCC on Docket 01-92, 2001-2008**

The relationships shown in Figure 1 are derived from metadata retrieved from the FCC’s Electronic Comment Filing Systems (ECFS). Metadata is information about information; it varies from system to system, and may include information about the

purpose, means of creation, data format, creator/author, time and date of creation, and context of a physical information item or an electronic file.<sup>3</sup> The information a user provides via the ECFS interface when submitting a document, such as the proceeding number(s) and the filer name(s), forms part of the metadata of an item stored in this database.<sup>4</sup> Other metadata that is generated by ECFS itself include date received, date posted online, and number of pages filed. The analysis used to generate Figure 1 used the following metadata: proceeding number, filer name, date of filing, and number of pages filed.

## II. IMPROVING TRANSPARENCY BY IMPROVING METADATA QUALITY

I welcome the Commission's Notices of Proposed Rulemaking regarding *ex parte* rules,<sup>5</sup> and amending the Commission's rules of practice and procedure.<sup>6</sup> I support the enhanced role envisaged for the ECFS.<sup>7</sup> Effective governance relies on informed participation, which in turn depends on transparency and access.

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<sup>3</sup> See <http://en.wikipedia.org/wiki/Metadata>

<sup>4</sup> At the date of this writing, the submittal fields were (items with an asterisk are required; the others are optional): proceeding number\*; name of filer\*; law firm name (required if represented by counsel); attorney/author name; email address; whether an *ex parte* filing; type of filing; file number; physical address\*; and a custom description of the submitted file. Taken from web interface presented at <http://fjallfoss.fcc.gov/ecfs/upload/display?z=zbxap> on May 7, 2010.

<sup>5</sup> Federal Communications Commission, *Amendment of the Commission's Ex Parte Rules and Other Procedural Rules*, GC Docket No. 10-43, February 18, 2010 (hereafter "NPRM 10-43" or "10-43")

<sup>6</sup> Federal Communications Commission, *Amendment of Certain of the Commission's Part 1 Rules of Practice and Procedure and Part 0 Rules of Commission Organization*, GC Docket No. 10-44, February 18, 2010 (hereafter "NPRM 10-44" or "10-44")

<sup>7</sup> NPRM 10-44 at para. 14

Staff of the Reference Information Center in the Consumer & Governmental Affairs Bureau have made great strides in improving the ECFS over the last few years. As contemplated in the NPRM,<sup>8</sup> making electronic filings in the ECFS and other electronic filing systems “machine readable” will improve the utility of these resources. While necessary and welcome, these advances are not sufficient. The metadata about filings also need to be improved.

ECFS metadata is often of poor quality. Since most information is submitted via free-text web forms without data validation, misspelling and under-specification of filer names is rife. There is no consistency in whether a filing is attributed to a parent company or its subsidiary, or in the use of “doing business as” monikers. For some examples, see Section IV at the end of this document.

This much is evident simply by examining the metadata; comparisons of metadata with underlying filed documents reveal further problems. In many cases, different entity names are reported in the filed document vs. the metadata (e.g. a company named as “Inc” in the filing and “Corp” in the metadata; or a holding company names in one vs. a subsidiary in the other), or an individual’s name is attached in metadata to a filing made by a company or group of companies. Occasionally, the same abbreviated filer name is used by different entities.

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<sup>8</sup> Ibid. at para. 16

A further obstacle to transparency is where “et al.” is used in metadata for filings on behalf of a group of entities; only laborious reference to the underlying document will reveal the complete list of filers.

These difficulties apply to all submissions to the ECFS. There are also specific inadequacies that could be addressed by adjustments to the *ex parte* rules.<sup>9</sup> Entering the complete lists of the participants when submitting a notice of an *ex parte* meeting to ECFS will improve transparency of the rule-making process, and the utility of the database to intervenors, the public, and scholars. Further, since meetings play a key role in the dynamics of rule making, it would be very helpful to distinguish at time of submittal between a document being submitted *ex parte*, and the memorandum of an *ex parte* meeting.

The remainder of this section makes specific recommendations to ameliorate the difficulties just itemized.

**A. ASSOCIATE A UNIQUE IDENTIFIER WITH EACH FILER**

The utility of the ECFS is impeded by misspellings and redundant variations in metadata. Conversations with practitioners suggests that the primary source of these variations are operator input errors.

Requiring filers to use a persistent, unique identifier when filing a document will limit multiple spellings of the same applicant’s name. There are various implementation options:

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<sup>9</sup> As in NPRM 10-43, these comments focus on “permit-but-disclose” proceedings (see para. 3)

1. The simplest is to offer an auto-complete drop-down when a user of the ECFS submission page enters a name. The system will present the user with a list of similar, previously used names so that they can pick the correct one without retyping. Similar functionality is already used in the “Proceeding Number” entry field, where the numbers of possible proceedings are offered as a drop-down as soon as the user begins to enter a number.<sup>10</sup> The drawback of this approach is that previous misspellings will be included in the suggestions, allowing errors to persist.
2. The next step in functionality would be to require the submitter to log in using an identity provided by a third party.<sup>11</sup> Filers would be able to create identities of their choice for each of the filing entities that they used. A potential drawback of this approach is that there are no links to identities already used by parties in other interactions with the FCC.<sup>12</sup>
3. The most accurate solution would require that all filers, perhaps with the exception of individual members of the public,<sup>13</sup> are identified to the ECFS

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<sup>10</sup> <http://fjallfoss.fcc.gov/ecfs/upload/display?z=zbaxp>, accessed May 7, 2010

<sup>11</sup> For example, OpenID is a web registration and single sign-on protocol that lets users register and login to OpenID-enabled websites using their own choice of OpenID identifier.. At the time of writing, OpenID authentication was used and provided by several large web sites, including AOL, BBC, Facebook, Google, IBM, Microsoft, MySpace, Orange, PayPal, VeriSign, LiveJournal, Yandex, Ustream and Yahoo!. See: <http://openid.net/>.

<sup>12</sup> Such identities include the FCC Registration Number (FRN) discussed in the next paragraph, and the FCC Form 499 Filer ID.

<sup>13</sup> For example, registered identifiers might be required for submission via the main “Submit a Filing” page, but not the “ECFS Express” page; see <http://fjallfoss.fcc.gov/ecfs/upload/display?z=a19k8> and <http://fjallfoss.fcc.gov/ecfs/hotdocket/list>, respectively, available May 9, 2010.

using an FCC Registration Number (FRN). The drawback of this option is that an FRN is not currently required from petitioners or non-feeable complainants.

An additional benefit of requiring login with a unique identifier is that users will be able to self-correct inadvertent errors (such incorrect docket numbers, subsidiary/holding company choices, or type of filing) without involving FCC staff.

**B. PROVIDE THE NAMES OF ALL PETITIONERS WHEN SUBMITTING ECFS METADATA**

The partial declaration of the names of applicants in ECFS metadata, and particularly the use of “et al.”, significantly reduces the usability of ECFS metadata when tracking participation of entities in proceedings. The names of all applicants do, of course, appear in the filed document; however, extracting these names can be difficult even for a human, let alone for a software program, since they are not reported in a consistent way across documents.

This difficulty can be avoided by requiring that all the names of all applicants in a filing be provided when making a submission to ECFS. This will require a change in the ECFS “Submit a Filing” web page, which currently only provides a single text entry box for the name(s) of the filer.<sup>14</sup> However, this should be straightforward, simply echoing the “Add Another Proceeding...” link below the “Proceeding Number” text entry box.

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<sup>14</sup> <http://fjallfoss.fcc.gov/ecfs/upload/display?z=zbaxp>, accessed May 7, 2010

There may have to be some exceptions when filings are done on behalf of hundreds of parties. However, in such cases the multitudes are usually represented by a trade association or public interest group, and that entity would then represent them in the metadata.

Easy access via metadata to the identities of both the people involved as well as the interests they represent would improve the analysis of ECFS data regarding *ex parte* meetings. In these cases, new rules would require the submittal of metadata not only for the organizations involved, but also for the persons representing them. The understanding of how decisions are arrived at would also benefit from logging the names of FCC staff participating in the meeting. All this information is already disclosed in filed documents, but extracting it requires either expensive and time-consuming human intervention, or failure-prone computer text analysis.

**C. IMPROVE RSS FEED AND SEARCH FUNCTIONALITY**

The introduction of RSS feeds associated with proceedings held in the ECFS is a very welcome development. However, this functionality is currently limited to metadata searches. Making full text searches on ECFS available as an RSS feed, as is commonly found on web search engines,<sup>15</sup> would improve the ability of interested parties to follow and respond to evolving proceedings.

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<sup>15</sup> For example, Google Alerts enable users to receive email updates or RSS feeds when the search engine finds new results that match a search term. See the FAQ at <http://www.google.com/alerts?hl=en>, available May 9, 2010.

**D. REQUIRE THE POSTING OF DIGITAL AUDIO RECORDINGS OF *EX PARTE* MEETINGS**

Digital technology can be used to serve the goals of “[giving] the public and other interested persons fair notice of the content of *ex parte* meetings and the desirability of not requiring parties to file unnecessary paperwork.”<sup>16</sup> Concerns about the accuracy and completeness of *ex parte* memoranda can be allayed by requiring that parties submit a digital recording in a standard format of every *ex parte* conversation.<sup>17</sup> All current laptops and most smartphones, have the capacity to make digital recordings of reasonable quality; no special purpose equipment would be required.<sup>18</sup>

Current rules allow tape recordings to be submitted as an alternative to a memorandum for *ex parte* presentations that occur in the form of discussion at a widely attended meeting.<sup>19</sup> In this proposal, such a recording should be submitted in addition to any written memorandum.

While one may expect that recordings of *ex parte* meetings will initially only be reviewed by humans, and then probably only in a small set of contentious cases, this data will come to constitute a corpus that can be analyzed more exhaustively by automated

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<sup>16</sup> NPRM 10-43, at para. 4

<sup>17</sup> Doug Sicker, Associate Professor of Computer Science and Director of the ITP Laboratory at the University of Colorado in Boulder, shared this idea with me in 2007. I gather he first proposed the concept while at the FCC in 1998, suggesting that staff could record the meetings on their laptops with readily available software.

<sup>18</sup> The amount of storage required depends on sound quality and compression algorithm. 2 MB/minute will provide decent quality, and a thirty minute meeting would thus require less than 100 MB, or 0.1 GB. Today’s smartphones ship with 16 to 32 GB of or storage, leaving more than enough room for an audio recording of many hours. If that were not enough, the next generation of phones is expected to ship with additional 8 GB microSD removable data storage cards.

<sup>19</sup> See Note 1 to 47 C.F.R. § 1.1206(b)

means, e.g. using speech-to-text technologies, for information on topics covered, proposal nuances, inter-personal dynamics, etc.

I recognize that the Commission faces a balancing act in crafting *ex parte* disclosure rules. To the extent that on-the-record audio recordings discourage candid conversation between the FCC and parties in a proceeding, they could limit the Commission's ability to obtain the information necessary for it to make reasonable decisions. However, such recordings clearly serve the purpose that the subject matter of presentations must be fully disclosed.<sup>20, 21</sup>

**E. PROVIDE A MACHINE INTERFACE FOR BOTH ECFS SEARCH AND SUBMISSION**

While the recently added functionality in the ECFS search interface, notably exporting search results to a spreadsheet, is a very welcome development, retrieving ECFS data still requires an interface designed for human interaction.<sup>22</sup> Providing public read-only access to the ECFS database via a published application programming interface would facilitate data retrieval and analysis.

A significant and very welcome upgrade in the ECFS interface has streamlined the submission of filings. However, this interface is also designed for human use. A

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<sup>20</sup> Federal Communications Commission, *Fact Sheet on Ex Parte Rules*, July 2001. Available [http://www.fcc.gov/ogc/admain/ex\\_parte\\_factsheet.html](http://www.fcc.gov/ogc/admain/ex_parte_factsheet.html), May 7, 2010

<sup>21</sup> Almost everybody seems to recognize that off-the-record discussions are an essential part of effective rule making; however, such meetings are usually precluded by the letter of the statute. Almost everybody therefore turns a blind eye to the full disclosure requirements in the regulations.

<sup>22</sup> Programs can be written to obtain automated access to databases through human-oriented interfaces, but they are difficult to maintain: a change in the interface that might not be noticed by a user can disable programmatic access and require reprogramming.

public machine interface to the ECFS database would allow third party developers or user groups to develop tools for submitting documents that would function alongside the standard ECFS interface.

Such an interface would provide opportunities for interested parties to streamline their interactions with the Commission. For example, one can envisage a work flow tool that would automate the filing and tracking of FCC documents. One could also imagine a smartphone application that could automatically make a time-stamped recording of an *ex parte* meeting, associate it with attendee information in a software calendar, and upload it to ECFS with minimal user effort.<sup>23</sup>

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<sup>23</sup> Blake Ellis Reed suggested an iPhone/Android application to record and upload a recording to the web; personal communication, May 7, 2010. The ReMo service is an existence proof: it can (among other things) capture a conversation on a mobile phone and upload it seamlessly and securely to a media vault; see <https://www.removault.com/webpages/outside/home.aspx>.

### III. CONCLUSIONS

Participants in proceedings, scholars and the public have an interest in being able to track and analyze interactions between the Commission and petitioners. The feasibility and efficiency of such activities can be improved by the recommendations made here:

- Associate a unique identifier with each filer
- Provide the names of all petitioners when submitting ECFS metadata
- Improve RSS feed and search functionality
- Require the posting of digital audio recordings of *ex parte* meetings
- Provide machine interface for both ECFS search and submission

Implementing these recommendations will improve rule making. It will also facilitate the development of tools to analyze filings, identify key players and coalitions, and track the evolution of proceedings.

Respectfully submitted,

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May 9, 2010

#### IV. APPENDIX: NAME VARIATIONS

This appendix provides a flavor of the spelling variants found in the ECFS database. Variants of the suffixes Inc and Corp have been omitted, as have a multitude of “doing business as” cases.

##### **Some names used by BellSouth**

- BellSouth - Exparte #5
- BellSouth Coration
- BellSouth Corpm
- BellSouth Corps
- BellSouth D.C.
- BellSouth TELECOMMUN
- BellSouth TELECOMMUNIC
- BellSouth TELECOMMUNICA
- BellSouth TELECOMMUNICAT
- BellSouth TELECOMMUNICATI
- BellSouth Telecommunication
- Bell South
- BellSouth and BellSouth

##### **Misspellings of “Communications”**

- Comminication
- Commnications
- Communcions
- Commuications
- Commuincations
- Communcations
- COMMUNIATIONS
- Communicaitions
- COMMUNICAITONS
- Communicatiions
- Communicatins
- Communicationas
- Communicationsn
- COMMUNICCATIONS
- Communcions
- Communocations
- Comunciations
- Coommunications
- Cummunications

##### **Names used by the FCC**

- ADVISORY COMMITTEE
- ADVISORY COMMITTEE ON
- ADVISORY COMMITTEE ON ADV
- AUTHORIZATION & EVALUATIO
- AUTHORIZATION AND EVALUAT
- AVIATION & MARINE
- AVIATION & MARINE BRANCH
- BUREAU
- CIB
- COMMERCIAL WIRELESS DAVIS
- COMMERCIAL WIRELESS DIVIS

- Commercial Wireless Division
- COMMERCIAL WIRELESS DIVI
- Competitive Pricing Division
- COMPLAINTS & INVESTIGATIO
- COMPLAINTS & POLITICAL
- COMPLAINTS AND INVESTIGAT
- Compliance & Information Bureau
- COMPLIANCE AND INFORMATIO
- Compliance and Information
- Compliance and Information Bureau
- Compliance Division
- COMPLIANCE INFORMATION
- DEPUTY CHIEF, POLICY
- DOCKETETS
- DOCKETETS BRANCH
- DOMESTIC FACILITIES
- DOMESTIC FACILITIES DIV
- DOMESTIC FACILITIES DIV.
- DOMESTIC FACILITIES DIVIS
- DOMESTIC RADIO BRANCH
- DOMESTIC SERVICES BRANCH
- EEO BRANCH
- Electromagnetic Compatibility Division
- EN BANC HEARING
- EN BANC HEARINGS
- EN BANC MEETING
- FCC ADVISORY COMMITTEE
- FCC BUREAU AND DIVISION
- FCC Consumer Advisory Committee
- FCC Labatory
- FCC Laboratory
- FCC SMALL BUSINESS ADVISO
- FCC-ADVISORY COMMITTEE
- Federal Communications Commission
- Fee Decisions
- FINANCIAL ANALYSIS AND
- Financial Operations Center Auctions Accounting Group
- FORMAL COMPLAINTS & INVES
- FY 1999 AM/FM Radio Regulatory Fees
- FY 2000 AM and FM Regulatory Fees
- FY 2001 AM and FM Radio Regulatory Fees
- HEARING BRANCH
- HEARING BRANCH DIVISION
- Information Technology Division
- INSPECTOR GENERAL
- Investigation And Hearing Division
- Investigations and Hearing Division

- Investigations and Hearings Division
- LAND MOBILE & MICROWAVE
- LAND MOBILE & MICROWAVE D
- LAND MOBILE & MIRCOWAVE
- LAND MOBILE AND MICRO
- LAND MOBILE AND MICROWAV
- LAND MOBILE AND MICROWAVE
- LAND MOBILE MICROWAVE DIV
- LEGISLATIVE & INTER-GOVER
- LEGISLATIVE AFFAIRS
- Media Access
- Minority Media and Telecommunications Council
- Mobility Div
- Office of Broadcast License Policy
- Office of Broadcasts License Policy
- Office of Communication Business Opportunities Bureau
- OFFICE OF Communications
- Office of Communications Business Opportunities
- OFFICE OF INTERNATIONAL
- OFFICE OF INTERNATIONAL C
- OFFICE OF LEGISLATIVE &
- OFFICE OF LEGISLATIVE & I
- OFFICE OF LEGISLATIVE AFF
- OFFICE OF LEGISLATIVE AND
- OFFICE OF PUBLIC AFFAIRS
- PERSONAL RADIO BRANCH
- Policy and Division
- POLICY AND FACILITIES BRA
- POLICY Div
- POLICY DIV.
- Policy Div/IB
- Policy Division
- Policy Division et al
- Policy Division
- Policy Division
- Pricing and Policy Division
- Pricing Policy
- Pricing Policy Div
- Pricing Policy Division
- Pricing Policy Division
- Private Radio Bureau
- PRIVATE RADIO BUREAU & OE
- PRIVATE RADIO DIVISION
- PRIVATE WIRELESS DIVISION
- PRIVATE WIRELESS DIVISON
- PROGRAM ANALYSIS
- Program and Planning Division
- Program and Policy Planning Division
- PROGRAM MANAGEMENT
- PROGRAM MANAGEMENT STAFF
- PROGRAM PLANNING DIVISION
- PROGRAM POLICY AND PLANNI
- PS Bureau
- Public Safety Division and Critical Infrastructure Division
- Public and Critical Infrasture Division
- Public and Safety and Private Wireless Division
- Public Forum
- Public Forum of Transmission Capability Between the Central Office and End-User
- Public Safety & Critical Infrastructure Division
- Public Safety & Homeland Security Bureau
- Public Safety & Private Wireless Division
- Public Safety and Critial Infastructure Division
- Public Safety and Critical Infastructure Division
- Public Safety and Critical Infastructure Division
- Public Safety and Critical Infrastructure
- Public Safety and Critical Infrastructure Div
- Public Safety and Critical Infrastructure Division
- Public Safety And Critical Infastructure Division
- Public Safety and Critical Intrastructure Division
- Public Safety and Homeland Bueau
- Public Safety and Homeland Security
- Public Safety and Homeland Security Bureau
- Public Safety and Homeleand Security Bureau
- Public Safety and Infrastructure Division
- PUBLIC SAFETY AND PRIVATE
- Public Safety and Private Radio Division
- Public Safety and Private Wireless
- Public Safety and Private Wireless Division
- Public Safety and Private Wirelsss Division
- Public Safety and Wireless Bureau
- Public Safety and Wireless Division
- Public Safety Critical Infrastructure Division
- Public Safety Division and Critical Infrastructure Division
- Public Safety National Plan Region 54
- Public Safety, Private Wireless Division
- Public Saftey & Homeland Security
- Public Saftey and Critical Infrastructure Division
- Public Saftey and Homeland Security Bureau
- Public Saftey and Private Wireless Division
- PUBLIC SERVICE DIV.
- PUBLIC SERVICE DIVISION
- Public Ssfety and Critical Infrastructure Division
- Public Statement and Critical Infrastructure Division
- Public-Safety and Private Wireless Division
- R I C
- R. I. C.
- R.I.C
- R.I.C.
- Reference Information Center
- Revenue & Receivables Operations Group
- Revenues and Receivables Operation Group
- RIC
- Safety and Critical Infrastructure Division
- Saftey Division and Critical Infrastructure Division
- SATELLITE & RADIO COMMUNI
- SATELLITE & RADIOCOMMUNIC
- Satellite & Radiocommunication Division
- Satellite and Radio Communication Division
- Satellite and Radio Communication Division
- SATELLITE AND RADIOCOMMUN
- Satellite and Radiocommunication Division
- Satellite and Radiocommunications Division

- Satellite Division
- SATELLITE RADIO BRANCH
- SPECIAL SERVICE DIV.
- SPECIAL SERVICE DIVISION
- SPECIAL SERVICES DIV.
- SPECIAL SERVICES DIVISION
- Spectrum & Competition Policy Division
- Spectrum Access, Spectrum & Competition Policy Division
- SPECTRUM ANALYSIS
- SPECTRUM ANALYSIS DIV.
- SPECTRUM ANALYSIS DIVISIO
- Spectrum And Cometition Policy Division
- Spectrum and Competition Policy
- Spectrum and Competition Policy Division
- Spectrum and Competition Policy Division et al
- Spectrum and Competition Policy Division
- Spectrum Competition & Policy Division
- SPECTRUM DIVISION
- SPECTRUM ENGINEERING
- SPECTRUM ENGINEERING DIV
- SPECTRUM ENGINEERING DIV.
- SPECTRUM ENGINEERING DIVI
- SPECTRUM POLICY BRANCH
- Spectrum Policy Task Force
- STAFF
- Strategic Analysis & Negotiations Division
- Strategic Analysis and Negotiating Division
- Strategic Analysis and Negotiation Division
- Strategic Analysis and Negotiations Division
- TARIFF DIV.
- TARIFF DIVISION
- TARRIFF DIVISION
- Technical and Public Safety Division
- TECHNICAL RULES BRANCH
- TECHNICAL STANDARDS BRANC
- Telecommunications Access Policy Division
- Telecommuinations Access Policy Division
- Telecommunication Access Policy Division
- Telecommunications
- Telecommunications Acces Policy Division
- Telecommunications Access
- Telecommunications Access Policy
- Telecommunications Access Policy Access
- Telecommunications Access Policy Divisin
- Telecommunications Access Policy Division
- Telecommunications Access Policy Division
- Telecommunications Access Policy Divison
- Telecommunications Access Policy Division
- TELECOMMUNICATIONS ANALYS
- Telecommunications and Access Policy Division
- Telecommunications Consumers Division
- TELECOMMUNICATIONS DIVISI
- Telecommunications Division
- Telecommunications Division et al
- Telecommunications Policy Division
- Telecommunicatons Access Policy Division
- Telecommunicatrions Access Policy Divisin
- Telecommunications Access Policy Division
- Telecommunications Access Policy Division
- WORKSHOP ON CUSTOMER LOCA
- WORKSHOP ON OUTSIDE PLANT
- A L J
- A.L.J.
- Administrative Law Judge
- Adminstrative Law Judge
- Admistrative Law Division
- AJL
- ALJ
- ALJ.
- CABLE SERICES BUREAU
- CABLE SERVICE BUREAU
- Cable Services
- Cable Services Bureau
- Cable Services Bureau et al
- CABLE SERVICES DIV.
- Cable Services Division
- CABLE TV BRANCH
- POLICY & RULE DIV.
- POLICY & RULES BRANCH
- POLICY & RULES Div
- POLICY & RULES DIV.
- POLICY & RULES DIVISION
- POLICY & RULES DIVISION
- POLICY AND RUELS DIVISION
- POLICY AND RULES
- Policy and Rules Branch
- POLICY AND RULES Div
- POLICY AND RULES DIV.
- POLICY AND RULES DIVISI
- POLICY AND RULES DIVISIN
- POLICY AND RULES DIVISIO
- Policy and Rules Division
- POLICY ND RULES DIVISION
- Policy Pricing Division
- POLICY RULES DIVISION
- CHAIRMAN
- CHAIRMAN HUNDT
- CHAIRMAN SIKES
- OFFICE OF CHAIRMAN SIKES
- OFFICE OF THE CHAIRMAN
- COMM. FURCHTGOTT-ROTH
- COMMISSIONER
- Commissioner Bob Rowe
- COMMISSIONER CHONG
- Commissioner Joan Smith
- Commissioner Kathleen Q. Abernathy
- COMMISSIONER NESS
- COMMISSIONER POWELL
- COMMISSIONER TRISTANI
- Commissioners Gloria Tristani and Llaska Schoenfelder et al
- Office of Commissioner Adelstein
- Office of Commissioner Copps et al

- Office of Commissioner Martin
- Office of Commissioner Susan Ness
- ACCOUNTING & AUDITS
- ACCOUNTING & AUDITS DIV
- ACCOUNTING & AUDITS DIVIS
- ACCOUNTING AND AUDITING
- ACCOUNTING AND AUDITS
- ACCOUNTING AND AUDITS DIV
- Accounting and Safeguard Division
- ACCOUNTING SAFEGUARDS DIV
- Accounting Safeguards Division
- ACCOUNTING SYSTEMS BRANCH
- Cammon Carrier Bureau
- Commmon Carrier Bureau
- COMMOM CARRIER BUREAU
- Common Carier
- COMMON CARIER BUREAU
- Common Carrier
- Common Carrier Brueau
- COMMON CARRIER BUREAU
- Common Carrier Bureau et al
- Common Carriers Bureau
- Common Carries Bueau
- Common Carries Bureau
- Common Carrire Bureau
- Commor Carrier Bureau
- Comon Carrier
- COMPETITIVE PRICING DIV
- COMPETITIVE PRICING DIVIS
- Competitive Pricing Division
- COMPETITVE PRICING DIVISI
- Competitve Pricing Division
- MOBILE SERVICE DIVISION
- MOBILE SERVICES DIV
- MOBILE SERVICES DIV.
- MOBILE SERVICES DIVISION
- Mobility Division
- Mobility Divisions
- Net Service Division
- NETWORK SERVICE DIVISION
- NETWORK SERVICES DIVISION
- Network Services Division, CCB
- Network Technology Division
- Networks Services Division
- PLANS & POLICY
- POLICY & PLANNING
- POLICY & PROGRAM PLAN
- POLICY & PROGRAM PLANNING
- Policy & Program Planning Division
- POLICY & PROGRM PLAN
- POLICY AND PLANNING
- POLICY AND PLANNING BRANC
- POLICY AND PLANNING DIVIS
- Policy and Planning Division
- POLICY AND PROGRAM
- Policy and Program and Planning Division
- POLICY AND PROGRAM DIVISI
- Policy and Program Division
- POLICY AND PROGRAM PLAN
- POLICY AND PROGRAM PLANN
- POLICY AND PROGRAM PLANNI
- Policy and Program Planning
- Policy and Program Planning Divisin
- Policy and Program Planning Division
- Policy and Program Planning Division et al
- POLICY AND PROGRAMMING PL
- Policy andPlanning Division
- POLLCY & PROGRAM PLAN
- Comsumer & Governmental Affairs Bureau
- Consumer Policy Division
- Consume &Govenmental Affairs Bureau
- Consumer & Convermental Affairs Bureau
- Consumer & Govenmental Affairs Bureau
- Consumer & Governmental Affairs Bureau
- Consumer & Governmental and Affairs Bureau
- Consumer & Governmental Affairs Bureau
- Consumer & Government Affairs Bureau
- Consumer & Government Affiars Bureau
- Consumer & Governmental
- Consumer & Governmental Affair Bureau
- Consumer & Governmental Affairs
- Consumer & Governmental Affairs Bureau
- Consumer & Governmental Affairs Bureaus
- Consumer &Governmental Affairs Bureau
- Consumer Affairs & Outreach Division
- Consumer and Governmental Affairs Bureau
- Consumer and Governmental Affairs
- Consumer and Governmental Affairs Bureau
- Consumer and Governemental Affairs Bureau
- Consumer and Government Affairs Bureau
- Consumer and Governmental Affair Bureau
- Consumer and Governmental Affairs
- Consumer and Governmental Affairs Bureau
- Consumer Governmental Affairs Bureau
- Consumer Government Affairs Bureau
- Consumer Governmental Affairs Bureau
- Consumer Governmental and Affairs Bureau
- Consumer Imquiries and Complaints Division
- Consumer Information Bueau
- Consumer Information Bureau
- Consumer Policy Division
- CONSUMER PROTECTION & COM
- Consumer Protection and Competition Division
- Consumers and Governmental Affairs Bureau
- Consuner and Governmental Affairs Bureau
- Cosumer & Governmental Affairs Bureau
- Disability Rights Office
- Governmental & Affairs Burreau
- Office of Governmental Affairs
- Enforcement & Consumer Information Division
- ENFORCEMENT AND CONSUMER
- Enforcement and Consumer Division
- Enforcement and Consumer Information Division
- ENFORCEMENT AND CONSUMMER
- Enforcement Bureau

- Enforcement Bureau - Investigation and Hearings Division
- Enforcement Bureau - Investigations and Hearings Division
- Enforcement Bureau, Investigation and Hearings Division
- Enforcement Bureau, Investigations and Hearing Division
- Enforcement Bureau-Investigation and Hearing Division
- Enforcement Bureau-Investigation and Hearings Division
- Enforcement Bureau-Investigation and Hearing Division
- Enforcement Bureau's Investigation and Hearing Division
- ENFORCEMENT DIV.
- Enforcement Division
- Enforcement Bureau-Investigation and Hearing Division
- Enforcement Bureau
- ENFORCEMENT AND CONSUMER
- Investigations and Hearings Division
- Investigation and Hearing Division
- Investigation and Hearings Division
- Investigation and Hearings Division
- Investigations & Hearing Division
- Investigations and Hearing
- Investigations and Hearing Division
- Investigations and Hearings
- Investigations and Hearings Division
- Investigations Hearing Division
- Investigation and Hearings Division
- Investigations and Hearing Division
- Market Disputes Resolution Division
- OFFICE OF INSPECTOR GEN
- Office of Inspector General
- International Bureau
- International Bureau's Strategic Analysis and Negotiations Division
- International Bureau
- International Bureau and Wireless Telecomm Bureau
- International Bureau et al
- International Bureau Strategic and Negotiations Div
- International Bureau Strategic and Negotiations Division
- International Bureau's Strategic & Negotiations Division
- International Bureaus Strategic Analysis and Negotiation Division
- International Bureau's Strategic Analysis and Negotiations Div
- International Bureau's Strategic Analysis and Negotiations Division
- International Bureau's Strategic and Negotiations Div
- International Bureau's Strategic and Negotiations Division
- INTERNATIONAL POLICY
- INTERNATIONAL POLICY DIVI
- International Bureau
- James L. Ball
- James L. Ball, Chief, Policy Division, International Bureau
- Planning & Negotiation Division
- Planning & Negotiations Division
- Planning and Negotiations Division
- Planning and Programming Division
- Policy Division, International Bureau
- Policy Division/IB
- Strategic Analysis and Negotiation Div
- Strategic Analysis and Negotiations Div
- MASS MEDIA
- Mass Media Bureau
- MASS MEDIA BUREAU et al
- Audio Bureau
- Audio Division
- Audio Div
- Audio Division
- Audio Division
- Audio Division
- Audio Division
- Audio Policy
- Audio Service
- AUDIO SERVICE Div
- AUDIO SERVICE DIVISION
- AUDIO SERVICES BRANCH
- AUDIO SERVICES Div
- AUDIO SERVICES DIV.
- AUDIO SERVICES DIVISION
- Audio Vision
- AudioDivision
- Audion Division
- INDUSTRY ANALYSIS DIV.
- INDUSTRY ANALYSIS DIVISIO
- Industry Analysis Division
- Industry Analysis Division, Media Bureau
- Media Bureau
- Media Bureau, Policy Division
- Media Bureau, Video Division
- Video Division
- Video Division
- Video Service Commission
- VIDEO SERVICE DIVISION
- Video Services
- VIDEO SERVICES DIV.
- VIDEO SERVICES DIVISION
- Bureau of Engineering and Technology
- CHIEF ENGINEER
- ENGINEERING & TECHNOLOGY
- Engineering & Technology Division
- ENGINEERING AND TECHNOLOG
- Engineering and Technology
- Engineering and Technology Bureau
- Engineering Division
- ENGINEERING EVALUATION
- ENGINEERING POLICY BRANCH

- Laboratory Division
- OET
- OET Tutorial
- Office of Engineering and Technology
- OFFICE OF ENGINEERING
- OFFICE OF ENGINEERING &
- OFFICE OF ENGINEERING & T
- Office of Engineering & Technology
- Office of Engineering & Technology Bureau
- Office of Engineering & Techology
- OFFICE OF ENGINEERING AN
- OFFICE OF ENGINEERING AND
- Office of Engineering and Technology
- Office of Engineering and Technology
- Office of Engineering and Technology Bureau
- Office of Engineering and Technology Division
- Office of Engineering and Technology et al
- Office of Engineering and Technology Tutorial
- Office of Engineering and Technology
- Office of Engineering and Technology Div
- Office of Engineering and Technology Division
- OFFICE OF ENGINEERING TEC
- Office of Engineering Technology
- Office of Enginereing and Technology
- OFFICE OF ENGINERRING & T
- Office of Eneeneering and Technology
- Office of Technology & Engineering
- Office of the Engineering and Technology
- Office of the Engineering and Technology Bureau
- ACTING GENERAL COUNSEL
- Administrative Law Division
- Administration Law Division
- ADMINISTRATIVE LAW DIV.
- ADMINISTRATIVE LAW DIVISI
- Administrative Law Division
- ADMINISTRATIVE LAW DIVSIO
- ASSISTANT GENERAL COUNSEL
- ASSOCIATE GENERAL COUNSEL
- DEPUTY GENERAL COUNSEL
- GENERAL COUNSEL
- LIGITATION DIVISION
- LITIGATION DAVISION
- LITIGATION DIVISION
- Ofcice of General Counsel
- Office General Counsel
- Office of General
- Office of General Council
- OFFICE OF GENERAL COUNCIL
- OFFICE OF GENERAL COUNSEL
- Office of General Counsel
- Office of Genreal Counsel
- OFFICE OF THE GENERAL COU
- Office of the General Counsel
- OGC
- OGC/CCB OPEN FORUM VIDEO
- OGC-COMPETITION DIVISION
- OFFICE OF LEGISLATIVE &
- OFFICE OF LEGISLATIVE AND
- Office of Legislative and Government Affairs
- Office of Legislative and Governmental Affairs
- Office of Legislative and Intergovernmental Affairs
- MANAGINE DIRECTOR
- MANAGING DIRECTOR
- MANAGING, DIRECTOR
- Office Managing Director
- Office of Managaing Director
- Office of Manageing Director
- Office of Management Director
- Office of Managing
- OFFICE OF MANAGING DIRECT
- Office of Managing Director
- Office of Managing Division
- Office of ManagingDirector
- Office of the Managing Director
- Office of the Managing of Director
- Office of the Manging Director
- OFFICE OF PLANS & POLICY
- OFFICE OF PLANS AND POLI
- OFFICE OF PLANS AND POLIC
- Office of Plans and Policy
- Office of Strategic Planning & Policy Analysis
- Office of Strategic Planning and Policy Analysis
- Office of Strategic Planning and Policy Analysis et al
- Office of Strategic Planning and Policy Anaysis
- Office of Strategic Planning Policy Analysis
- Office of Strategic Planning Policy Anlysis
- Office ofStrategic Planning & Policy Analysis
- Homeland Security & Public Safety Bureau
- Homeland Security and Public Safety Division
- Public Safety and Homeland Security Bureau
- Public Safety and Homeland Security Bureau Auction
- Public Safety and Homeleand Security Bureau
- OFFICE OF THE SECRETARY
- SECRETARY
- SECRETARY, OFFICE OF THE
- Auction and Industry Analysis Division
- Auction Bureau
- AUCTIONS AND INDUSTRY ANA
- Auctions and Industry Analysis Division
- Auctions and Sectrum Access Division
- Auctions and Spectrum Access
- Auctions and Spectrum Access Div
- Auctions and Spectrum Access Division
- Auctions Div
- AUCTIONS DIVISION
- AUCTIONS DIVISIONS
- Auctions Legal Branch
- Braodband Division
- Broadband Div
- Broadband Division
- COMMERCIAL RADIO DIVISION
- COMMERCIAL WIRELESS DAVIS
- COMMERCIAL WIRELESS DIVDI
- COMMERCIAL WIRELESS DIVIS



**Filer name variations for the Ad Hoc Telecommunications Users Committee**

- AD HOC TELCOM
- AD HOC TELECOM
- AD HOC TELECOMMUNI
- AD HOC TELECOMMUNICATION
- AD HOC Telecommunications
- Ad Hoc Telecommunications Committee
- Ad Hoc Telecommunications User Committee
- Ad Hoc Telecommunications Users Committe
- Ad Hoc Telecommunications Users Committee
- Ad Hoc Telecommunicatoins Users Committee, The
- Ad Hoc Telecommunucations Users Committee
- AdHoc Telecommications Users Committee
- AdHoc Telecommunications Users Committe
- AdHoc Telecommunications Users Committee
- The Ad Hoc Telecommunications Users Committee

**Name variations for Cablevision**

- CABLEVISION SYSTEMS
- Cablevision Systems and Cablevision
- CABLEVISION SYSTEMS CORPA
- CABLEVISION SYSTEMS CORPO
- Cablevision VoIP
- Cablevision, IN
- Cablevision-CT
- Cablevision-NJ
- CABLEVISIONS INDUSTRIES C
- CABLEVISIONS SYSTEMS
- CABLEVIVION INDUSTRIES
- Cablevision Systems et al
- Cablevision
- Cablevision - CT
- Cablevision, IN
- Cablevision System
- CABLEVISION SYSTEMS CorpO
- CABLEVISION SYSYSTEMS

**Some filer names used for the California PUC**

- CALIFORNIA PUBLIC UTILIL
- CALIFORNIA PUBLIC UTILIT
- CALIFORNIA PUBLIC UTILITE
- California Public Utilites Commission
- CALIFORNIA PUBLIC UTILITI
- California Public Utilities
- CALIFORNIA PUBLIC UTILITIES COMMISSION
- California Public Utilities Commission - 99-204
- California Public Utilities Commission and People of the State of California
- California Public Utiliities Commission
- Calilifornia Public Utilities Commission
- Commissioners Lynch and Wood, California Public Utilities Commission
- People for the State of California and Ca. Public Utilities Commission

- People for the State of California and Cal. Public Utilities Commission
- People for the State of California and California Public Utilities Commission
- People of the State of California & Public Utilities Commission
- People of the State of California and Cal. Public Utilities Commission
- People of the State of California and California
- People of the State of California and California Public Utilities Commission
- People of the State of California and Public Utilities Commission
- People of the State of California and the Cal Public Utilities Commissoin
- People of the State of California and the California Public Utilities Commission
- Public Utilities Commission of the State of California
- State of California and the California Public Utilities Commission
- State of California Public Utilities Commission
- The People of the State of California and by proxy for CPUC
- The People of the State of California by proxy for CPUC

**Some names used by MSTV**

- ASSN FOR MAXIMUM SERVICE
- ASSN FOR MAXIUM SERVICE
- ASSO. FOR MAXIMUM SERVICE
- ASSOC. FOR MAXIMUM SERV.
- ASSOCIATION FOR MAXIMUM
- ASSOCIATION FOR MAXIMUM S
- Association FOR MAXIMUM SERVICE
- Association for Maximum Service Television
- Association for Maximum Service Television - MSTV
- Association for Maximum Service Television
- Association for Maximum Services Television
- Association for Maximum Sevice Television
- ASSOCIATION OF MAXIMUM SE
- MSTV, Association for Maximum TV
- The Association for Maximum Service
- The Association for Maximum Service Television
- The Association for Maximum Service Television - MSTV

**Some names used by the New Jersey Ratepayer Advocate**

- New Jersey Div of Rate Counsel
- New Jersey Div of the Rate Counsel
- New Jersey Div of the Ratepayer Adovate
- New Jersey Div Ratepayer Advocate
- New Jersey Divison of the Ratepayer Advocate
- New Jersey Public Advocate Div of Rate Counsel
- Nj Div of Rate Counsel
- NJ Division of Rate Counsel
- NJ Div of Ratepayer Advocate
- NJ Div of the Ratepayer Advocate

- NJ Div of the Ratepayer Advocate
- New Jersey Division of the Rate Counsel

**Some names used by the PCIA**

- PCIA - The Wireless Infrastructure Association
- PCIA - The Wireless Infrastructure Association
- PCIA - The Wireless Infrastructure Association
- PCIA -- The Wireless Infrastructure Association
- PCIA The Wireless Infrastructure Association
- PCIA, The Wireless Infrastructure Association
- PCIA/The Wireless Infrastructure Association
- PCIA-The Wireless Infrastructure Association
- PCIA--The Wireless Infrastructure Association
- PCIA~The Wireless Infrastructure Association
- PERSONAL COMMUNICATION IN
- PERSONAL Communications I
- Personal Communications Industry Association
- Personal Communications Industry Association

**Some names used by tw telecom**

- Telecom Holdings d/b/a tw telecom
- TIME WARNER COMMUNICATION
- Time Warner Communications Holding d/b/a tw telecom
- Time Warner Communications Holdings d/b/a tw telecom
- Time Warner Communications Holdings d/b/a/ tw telecom
- Time Warner Holdings d/b/a tw telecom
- tw telecom Holding
- tw telecom Holdings
- tw telecom Holdings d/b/a tw telecom
- tw telecom Holdings d/h/a tw telecom
- tw telecom of Colorado
- tw telecom of Florida
- tw telecom of Ohio
- tw telecom of South Carolina
- tw telecom of Texas
- tw telecom of the Mid-South
- tw telecomMUNIC
- tw telecomMUNICA
- tw Telecommunications

**Some names used by Wilkinson Barker Knauer**

- WILKINSON BARKER KNAUER
- Wilkinson Barker Knauer
- WILKINSON BARKER KNAUER &
- Wilkinson Barker Knauer LLP
- Wilkinson Barker Knauer, LLP
- WILKINSON BARKER KNAUER
- WILKINSON, BARKER, KNAUER
- Wilkinson, Barker & Knauer
- WILKINSON, BARKER, KNAUER
- Wilkinson, Barker, Knauer & Quinn