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## Addressing Patent and Copyright Challenges at the Federal Communications Commission

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## Executive Summary

The Samuelson-Glushko Technology Law and Policy Clinic at the University of Colorado Law School respectfully offers this white paper to discuss a number of instances where the Federal Communications Commission’s rulemakings, rules, and other initiatives have been affected by intellectual property issues—primarily regarding copyrights and patents—that were unanticipated by the Commission. In disseminating this paper, we aim to begin a conversation about the state of intellectual property expertise at the Commission and propose recommendations for how the Commission can become better equipped to handle these issues when they arise.

The Commission has long recognized that intellectual property issues, specifically patent-related issues, should be addressed proactively.<sup>1</sup> The Commission’s own 1961 patent policy outlines a commitment to have stakeholders disclose relevant patents, to augment its staff with intellectual property experts, and to forecast problems of intellectual property at the outset of proceedings.<sup>2</sup> The examples highlighted in this paper, however, suggest that the Commission’s patent policy has fallen out of use, resulting in the loss of a valuable approach to patent-related problems that may also be used to deal with copyright challenges in rulemaking proceedings.

The Commission has faced intellectual property issues for more than half a century. Over the past two decades in particular, the Commission has encountered:

- (1) Suits (and threats of suits) brought against entities who are required, pursuant to the Commission’s regulations, to use a technology that is the subject of

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<sup>1</sup> See *Revised Patent Procedures of the Federal Communications Commission*, 3 F.C.C. 2d. (1961), attached as appendix.

<sup>2</sup> See *id.*

rightsholders' patents or transform content that is the subject of rightsholders' copyrights;<sup>3</sup>

- (2) Rightsholders leveraging intellectual property protections to keep competitors from entering certain markets that would not exist but for the Commission's rules and subsidies;<sup>4</sup> and
- (3) Rightsholders lobbying other agencies to weigh in on intellectual property issues contained in Commission matters.<sup>5</sup>

This paper highlights specific examples of these phenomena. In some instances, the Commission has the opportunity to proactively deal with a problem; in others, the Commission may be correct in allowing regulated entities and rightsholders to sort out disputes among themselves. Regardless, these intellectual property problems require a more mindful, deliberate approach on the Commission's part.

Thus, this paper contains rationales for the following recommendations:

- The Office of General Counsel should have on staff an appropriate number of attorneys with intellectual property expertise.
- The Commission should consider hiring fellows, such as academic researchers, to forecast intellectual property problems that may arise in critical initiatives.
- The Commission should require staff to attend training sessions on substantive intellectual property law and relevant exceptions and limitations.
- The Commission should have staff forecast potential intellectual property issues at the outset of proceedings.
- The Commission should conduct a search for relevant intellectual property rights that stakeholders may hold.

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<sup>3</sup> See discussion, *infra* Part I(A).

<sup>4</sup> See discussion, *infra* Part I(B).

<sup>5</sup> See discussion, *infra* Part I(C).

## Table of Contents

<b>Executive Summary</b> .....	<b>i</b>
<b>Discussion</b> .....	<b>1</b>
I. The Commission should pay attention to certain contexts where intellectual property concerns are present. ....	2
A. Regulated entities sometimes must choose whether to risk litigation for infringement or violate a Commission rule. ....	3
B. The Commission’s decision to ignore underlying intellectual property issues can dampen competition in government-subsidized markets. ....	5
C. Industry groups can use intellectual property to leverage other agencies to weigh in on Commission matters. ....	9
II. How can the Commission address intellectual property issues? .....	13
A. The Commission should hire experts in intellectual property law. ....	13
B. The Commission should forecast potential intellectual property issues at the outset of proceedings. ....	18

## Discussion

This paper discusses the Commission's process for addressing intellectual property ("IP") issues that have arisen in Commission matters. IP has been used to bring suit against entities that are required to use certain technologies to comply with Commission rules, to dampen competition, and to insert other agencies into Commission matters.<sup>6</sup> This paper discusses each of those situations in turn and proposes recommendations that may help the Commission avoid IP issues in the future.

For the Commission, the IP issues that are now present have not always been a source of concern. In some circumstances, rightsholders have been incentivized to negotiate licensing agreements around the IP rights at issue; a hands-off approach can be appropriate.<sup>7</sup>

However, the forces that cause rightsholders to negotiate licensing agreements without intervention on the part of the Commission are sometimes absent, leading to potential failures of various policy initiatives. Many external factors can contribute to failed licensing negotiations; the presence of patent-assertion entities, the absence of a market but for government subsidy, and the influence of stakeholders on government decisions all play a role in preventing the private negotiation of intellectual property use.

The Commission has long recognized the need to address IP issues that arise in telecommunications policy matters under its jurisdiction.<sup>8</sup> In 1961, "[t]he Federal Communications Commission announce[d] that it [was] strengthening its patent procedures to ensure that . . . the Commission's rules and regulations will not be prejudiced by unreasonable royalty or licensing

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<sup>6</sup> Alongside the contexts addressed in this paper, we recognize that a number of issues surrounding intellectual property law have emerged, but do not address those issues here. Although this paper highlights examples where one could debate the merits of intellectual property reform, we focus on how the Commission can handle these issues within the current framework of intellectual property law.

<sup>7</sup> See discussion, *infra* Part I(A) (discussing contexts where issues of intellectual property have negatively affected the Commission matters related to 9-1-1 services, telecommunications relay services, and set-top boxes).

<sup>8</sup> See FCC Patent Policy, *supra* note 1.

policies of patent-holders.”<sup>9</sup> In particular, the Commission made three commitments to thwart IP issues that prevent the development of technologies that serve the public interest.<sup>10</sup>

- The Commission promised to continue “obtain[ing] patent information whenever it becomes relevant to a particular proceeding.”<sup>11</sup>
- The Commission purposed to “augment its staff in order to permit a regularized, continuing, and current study of new technical developments relevant to its jurisdiction.”<sup>12</sup>
- The Commission made a commitment to bring issues “to the Commission’s attention for early consideration and appropriate action . . . [w]henver it appears that the patent structure is or may be such as to indicate obstruction of the service to be provided . . . .”<sup>13</sup>

Accordingly, this paper contains recommendations consistent with the Commission’s patent policy, which seems to have fallen by the wayside in the intervening decades since its inception. We also extrapolate the patent policy’s guiding principle—that the Commission should be poised to address IP issues when they arise—to copyright issues, which can harm Commission proceedings just as much patent issues.

## **I. The Commission should pay attention to certain contexts where intellectual property concerns are present.**

This section offers examples of situations where a Commission matter has been affected by IP challenges. Each of the situations described in the following examples could have reached a better result if the Commission had forecasted potential IP issues or employed in-house experts who could have walked through the issues before they became problems; some could have been avoided altogether if the Commission had identified, at the outset, the IP issues that would eventually pose problems.

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<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at ¶ 3.

<sup>12</sup> *Id.* at ¶ 4.

<sup>13</sup> *Id.* at ¶ 5.

Each of this section's examples represents a type of situation faced by the Commission where IP issues are likely to arise. First, this section contains a discussion about situations where companies must choose between violating a Commission rule or risk infringing a rightsholder's patent. Second, this section explores the consequences of promulgating rules that do not align with the IP rights that are already in place. Third, this section highlights a situation where IP has been used to prompt other agencies to weigh in on Commission matters. Anytime the Commission encounters contexts like the ones in this section, it should consider what actions may be needed to remedy the IP issues at play.

**A. Regulated entities sometimes must choose whether to risk litigation for infringement or violate a Commission rule.**

One leading problem is the assertion of patents against services that are required, pursuant to the Commission's rules, to use certain technologies. The Commission regularly promulgates technical standards, which ensure that technologies are optimally updated and maintained. But sometimes, a technical standard issued by the Commission requires complying entities to use technologies that are already patented by others. In situations like these, a company may be left to choose between costly patent litigation and noncompliance with the Commission's rules.

A leading example of this phenomenon arose within the context of 9-1-1 services, where patent holders brought or threatened suit against 9-1-1 service providers who allegedly infringed rightsholders' patents by complying with the Commission's regulations.<sup>14</sup> There, patent assertion entities ("PAE") were among the rightsholders who sued the 9-1-1 service providers for

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<sup>14</sup> Public Safety and Homeland Security Bureau Seeks Comment on Petition for Declaratory Ruling and/or Rulemaking Filed by Telecommunication Systems, Inc., GN Dkt. No. 11-117, WC Dkt. No. 05-196, PS Dkt. No. 11-153, PS Dkt. No. 10-255, Notice Seeking Public Comment, DA 13-273 (released Feb. 22, 2013) [hereinafter Request for Comment on TCS Petition].

infringement.<sup>15</sup> Under one definition, PAEs are “businesses that acquire patents from third parties and seek to generate revenue by asserting them against alleged infringers.”<sup>16</sup>

Some PAE infringement claims are frivolous, and for a 9-1-1 service provider targeted by such a claim, not knowing whether the claim is frivolous can be daunting.<sup>17</sup> On the one hand, a 9-1-1 service provider can call a PAE’s bluff and refuse to settle. On the other hand, settling can be far less expensive than seeing patent litigation through, which can cost millions of dollars.<sup>18</sup>

Another option ordinarily open to potential infringers is to cease using the technology at issue. However, that option was not available to 9-1-1 service providers caught in this situation because doing so would violate the Commission’s technical standards for Electronic 9-1-1 (“E911”) and Next Generation 9-1-1 (“NG911”).<sup>19</sup>

In an attempt to remedy this problem, TeleCommunication Systems, Inc. (“TCS”), a 9-1-1 service provider, filed a petition for declaratory ruling with the Commission, requesting that the Commission adopt rules to deal with the assertion of patents against it. TCS claimed that patent-assertion entities “allege[d] infringement based on the mere fact that [a] defendant [was] in compliance with the Commission’s E911 regulations.”<sup>20</sup> TCS argued that it was left with a “choice between violating Commission rules, defending costly patent infringement lawsuits, and accepting unreasonable terms of licensing.”<sup>21</sup>

Specifically, TCS requested that the Commission “issue a declaratory ruling that service providers’ compliance with E911 and NG911 regulations amounts to a use of [IP] ‘by or for the United States,’” which would relieve the company from liability for infringement because, instead of

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<sup>15</sup> Although the TCS petition focused on PAEs, other entities brought suit, including some providers of 9-1-1 services. See *Petition of Telecommunication Systems, Inc. for Declaratory Ruling and/or Rulemaking*, GN Dkt. No. 11-117, WC Dkt. No. 05-196, PS Dkt. No. 10-255 at 2 (filed July 24, 2012) [hereinafter TCS Petition], <https://ecfsapi.fcc.gov/file/7021992394.pdf>.

<sup>16</sup> Fed. Trade Comm’n, Patent Assertion Entity Activity: An FTC Study 1 (2016).

<sup>17</sup> See *id.* at 54–100.

<sup>18</sup> See, e.g., *Id.* at 89.

<sup>19</sup> TCS Petition, *supra* note 15, at 2; see also Request for Comment on TCS Petition, *supra* note 14.

<sup>20</sup> *Id.*

<sup>21</sup> Request for Comment on TCS Petition, *supra* note 14, at 1.



suing TCS, rightsholders could sue the government in the Federal Court of Claims pursuant to 28 U.S.C. § 1498(a).<sup>22</sup> Alternatively, TCS asked the Commission “to adopt rules requiring [IP] rights for mandatory 911 service capabilities to be licensed on reasonable and non-discriminatory (“RAND”) terms.”<sup>23</sup> The Commission has not yet acted on the Petition.

Situations where PAEs are involved are a challenge for regulators to address. Because PAEs sometimes have no stake in a given industry apart from bringing suits against possible infringers, it can be difficult for industry groups to work with PAEs to negotiate reasonable licensing agreements.<sup>24</sup> In a situation like this one, a 9-1-1 service provider can be left with no way to resolve the underlying IP issue.

When the Commission adopts regulations for which compliance requires potentially infringing patents, regulated entities face a choice between infringement and noncompliance. Every time the Commission adopts new technical standards for a technology, it risks requiring regulated entities to infringe a rightsholder’s IP. However, technical standards are necessary for the Commission to carry out many of its mandates, including the provision of emergency services.<sup>25</sup> Thus, because it is neither practical nor beneficial for the Commission to avoid requiring technical standards for certain technologies, the Commission will likely encounter other situations where regulated entities must choose between noncompliance and potential infringement.

**B. The Commission’s decision to ignore underlying intellectual property issues can dampen competition in government-subsidized markets.**

The Commission has also faced situations where the assertion of IP rights has hindered the development of government-subsidized markets. The Commission is required under the Communications Act and other statutes to administer subsidies to develop certain markets where

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<sup>22</sup> *Id.* at 2 (quoting 28 U.S.C. § 1498(a)).

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 82–100.

<sup>25</sup> *See, e.g.*, 47 U.S.C. § 615a-1.

none would otherwise exist.<sup>26</sup> However, the Commission may struggle to develop those markets if incumbents are able to leverage their IP rights to exclude other companies from the market.

One leading example of this phenomenon can be seen in the market for telecommunications relay services (“TRS”) for people who are deaf and hard of hearing. In the TRS market, the Commission has proposed technical standards that could require new entrants to infringe an incumbent relay provider’s patent rights to comply with the standards—that is, if the patents are valid. Moreover, the Commission’s rule may open the door for that provider to exert its IP against new entrants in the form of litigation or licensing requirements, keeping them from entering the TRS market. These competitive concerns are particularly troubling because many people who are deaf or hard of hearing rely on TRS to communicate.<sup>27</sup>

The Commission regulates the provision of TRS under Title IV of the Americans with Disabilities Act, which requires the Commission to ensure that TRSs “are available, to the extent possible and in the most efficient manner,” and TRSs are compensated on a per-minute basis from the Interstate Telecommunication Relay Services Fund.<sup>28</sup> Video relay service (“VRS”) is a particular kind of TRS that allows people with hearing disabilities to communicate via video, through a Communications Assistant (“CA”).<sup>29</sup> The CA relates a person’s communications to another telephone user.<sup>30</sup> Using video, a person who is deaf can communicate in American Sign Language to

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<sup>26</sup> See 47 U.S.C. § 225(a)(3) (describing the need to ensure that people who are deaf and hard of hearing have access to telecommunications relay services, which would not exist but for government subsidy).

<sup>27</sup> See FCC, Consumer Guide Video Relay Service (Sept. 16, 2016), <http://transition.fcc.gov/cgb/consumerfacts/videorelay.pdf>.

<sup>28</sup> See *Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order, CG Dkt. Nos. 10-51 & 03-123, F.C.C. 16-25 (adopted Mar. 1, 2016); 47 U.S.C. §225(a)(3) (defining TRSs as “telephone transmission services that provide the ability for an individual who is deaf, hard of hearing, deaf-blind, or who has a speech disability to engage in communication by wire or radio with one or more individuals, in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services by wire or radio”); 47 U.S.C. § 225(b)(1) (describing the manner and efficiency of TRS deployment).

<sup>29</sup> See FCC, *supra* note 27.

<sup>30</sup> *Id.*

the CA, which vastly improves the speed of communications.<sup>31</sup> VRS is becoming increasingly popular and is a step toward functional equivalence for people who are deaf and hard-of-hearing.

The Telecommunications Act of 1996 requires TRSs, including VRSs, to be “functionally equivalent” to voice telephone services.<sup>32</sup> To achieve that equivalence, the Commission released a Report and Order and Further Notice of Proposed Rulemaking directing that VRSs be interoperable with each other.<sup>33</sup> Interoperability standards require that users of one company's VRS be able to connect with users of other services. Without the development of interoperability standards, deaf and hard of hearing people would need to maintain multiple services and devices.<sup>34</sup> Unlike voice telephone services, which have long been interoperable, VRS subscribers may need to switch between multiple services that each require specific, specialized user equipment. Thus, interoperability is necessary for the Commission to ensure that VRS is as close to functional equivalence as possible.<sup>35</sup>

Another goal of the Commission's interoperability Report and Order and Notice of Proposed Rulemaking was to develop a technology reference platform, which would allow potential participants to enter the VRS market without having to build platforms from scratch.<sup>36</sup> In the reference platform, the Commission laid out incremental steps to help speed entry.<sup>37</sup> Once implemented, the reference platform was intended to promote competition, innovation, and interoperability.

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<sup>31</sup> *Id.*

<sup>32</sup> See 47 U.S.C. § 225(a)(3).

<sup>33</sup> See *Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order and Further Notice of Proposed Rulemaking, CG Dkt. Nos. 10-51 & 03-123, DA 13-1483, 13-82 (adopted June 7, 2013).

<sup>34</sup> See Nat'l Ass'n of the Deaf, *Interoperability* (last visited Nov. 19, 2016), <https://nad.org/issues/telephone-and-relay-services/relay-services/interoperability>.

<sup>35</sup> *Id.*

<sup>36</sup> See, e.g., *Structure and Practices of the Video Relay Service Program*, *supra* note 33.

<sup>37</sup> *Id.*

Between 2013 and today, the industry developed two specifications for complying with the interoperability directive of the Commission's Order.<sup>38</sup> The Provider Interoperability Platform ("SIP") was developed to improve interoperability between VRS providers, whereas the Relay User Equipment ("RUE") interoperability profile was developed with the intent of standardizing back-end software with the new reference platform.<sup>39</sup> In August of 2016, the Commission tentatively announced that it would adopt the RUE profile for the reference platform.<sup>40</sup>

Sorenson Communications, however, told the Commission that adopting the RUE profile would require the use of Sorenson's IP.<sup>41</sup> In particular, Sorenson claimed that the use of the RUE profile on the reference platform would be covered by one or more claims of its patents.<sup>42</sup>

It remains unclear whether Sorenson's concerns are warranted. Apart from Sorenson itself, no one has attempted to determine whether Sorenson's patents are valid. Moreover, because government subsidies are critical to the existence of the VRS market, Sorenson's patented technologies likely were developed using those subsidies, raising further questions about the legitimacy and ownership of the patents.

Despite multiple communications by Sorenson highlighting the allegedly relevant patents, the Commission has yet to address them, whether by questioning the validity of the patents, arriving at a licensing arrangement, or some other solution, leaving the future of the reference platform in question.

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<sup>38</sup> *Id.*

<sup>39</sup> See generally Comments of Convo Communications, CSDVRS, Purple Communications, and Sorenson Communications, *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Structure and Practices of the Video Relay Service Program*, CG Dkt. Nos. 10-51 & 03-123 (submitted Sept. 14, 2016), <https://www.fcc.gov/ecfs/filing/10914633702270/document/10914633702270e0b2>.

<sup>40</sup> See *Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Further Notice of Proposed Rulemaking, CG Dkt. Nos. 10-51 & 03-123 (adopted Aug. 4, 2016).

<sup>41</sup> See Separate Comments of Sorenson Communications, Inc. in response to Further Notice of Proposed Rulemaking, *Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Dkt. Nos. 10-51, 03-123 at 2 (submitted Sep. 14, 2016).

<sup>42</sup> *Id.* at 4.

When the Commission begins an initiative to promote competition in a certain market, as with the reference platform and interoperability standards, it must consider whether any intellectual property may be implicated in the proceeding. In this situation, the Commission is attempting to create a reference platform that could be used to help competitors enter the government-subsidized VRS market. However, the platform that the Commission is trying to create may implicate some of Sorenson's IP. If the Commission promulgates technical standards that implicate Sorenson's IP without addressing the validity of the patents or coordinating an industry-wide licensing approach, it is unlikely that Sorenson could be prevented from leveraging its IP to require competitors to engage in licensing agreements or costly litigation, and competitors' only other option would be to ignore the technical standards, thus risking noncompliance.

It is not difficult to imagine this scenario occurring in other markets where the Commission is directly responsible for promoting competition, including the foregoing 9-1-1 example.<sup>43</sup> In both cases, the Commission considered promulgating rules that would require regulated entities to risk infringement to comply with a technical standard. Here, if the Commission chooses to ignore Sorenson's IP rights, a scenario similar to the one found in the 9-1-1 example may soon follow; companies may be left with a choice between complying with the Commission's technical standards and facing infringement litigation from Sorenson. Thus, contrary to the goal of promoting the entry of other companies into the VRS market by developing a reference platform, companies may be deterred from ever entering the market if they have to decide between infringement and noncompliance. Further, incumbents such as Sorenson may be able to leverage this opportunity to ensure their dominance in the relevant market.

**C. Industry groups can use intellectual property to leverage other agencies to weigh in on Commission matters.**

A final example concerns situations where industry groups use IP concerns to prompt other agencies to weigh in on a Commission proceeding. In many circumstances, agencies will collaborate

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<sup>43</sup> See discussion *supra*, Part I(A).

and comment on each other's proceedings if both have a legitimate interest in the underlying proceeding.<sup>44</sup> However, where an industry group is able to leverage another agency to merely repeat the industry's position on a matter, the Commission may be forced to address issues merely because they were raised by another government agency. Further, unlike contexts such as privacy, where several agencies have policymaking jurisdiction, IP policy is not regulated by any one agency.

This situation is best illustrated in the Commission's recent set-top box proceeding, where the U.S. Copyright Office repeated the IP concerns of content providers to the Commission to derail the proceeding. The Commission could have foreseen the IP issues that arose in this proceeding, but did not do so proactively and was caught flatfooted when the Copyright Office brought them to the Commission's attention.

The set-top box proceeding began with the Commission's proclamation in January of 2016 that it intended to "unlock the box," promoting competition for the devices used to access video content.<sup>45</sup> Historically that task has been left to cable companies, which allowed consumers to rent set-top boxes for a monthly fee.<sup>46</sup> However, the Commission sought to find a way for other companies, such as Apple and Google, to provide competitive alternatives to cable companies' boxes.<sup>47</sup>

Divergent positions developed throughout the proceeding, and large companies were in direct conflict. On one side, programming distributors and content providers like Comcast opposed the Commission's goal in the set-top box proceeding, raising concerns that opening up the set-top box

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<sup>44</sup> E.g., Comment of the Staff of the Bureau of Consumer Protection of the Federal Trade Commission, *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, WC Dkt. No. 16-106, F.C.C. 16-39 (submitted May 27, 2016) (commenting on the Commission's privacy proceeding).

<sup>45</sup> Tom Wheeler, FCC Chairman Proposal to Unlock the Set-Top Box: Creating Choice & Innovation (2016), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-337449A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-337449A1.pdf).

<sup>46</sup> *Id.*

<sup>47</sup> *Expanding Consumers' Video Navigation Choice, Notice of Proposed Rulemaking and Memorandum Opinion and Order*, MB Dkt. No. 16-42, CS Dkt. No. 97-80 (released Feb. 18, 2016) (available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-16-18A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-18A1.pdf)).

market would have negatively affected contractual obligations, revenue, and copyright.<sup>48</sup> On the other side were companies that wanted to enter the set-top box market, like Google and Apple, that argued that competition would have afforded more choices to the consumer and spurred needed innovation in the market.

The Commission's goal of unlocking the box has resulted in much discussion about competition and innovation in the realm of content provision, but the proceeding was ultimately sidetracked by copyright assertions. In particular, content providers argued that the Commission would open the door for infringement—by allowing content to flow across the set-top boxes of providers who had yet to negotiate licenses, the providers argued that new entrants would infringe the copyrights of content providers and disrupt exclusive licensing agreements with incumbent set-top box providers.<sup>49</sup> Those copyright issues made headlines when the Copyright Office sent a letter to the Commission, contending that the set-top box ruling would not honor “many negotiated conditions upon which copyright owners license their works.”<sup>50</sup>

However, since the Copyright Office's letter arrived at the Commission, some advocates have found evidence that the Copyright Office strategically coordinated its meetings with industry groups and the Commission to advocate on the part of content providers.<sup>51</sup> The Copyright Office's letter arrived at the Commission after the Copyright Office had hosted several meetings with content stakeholders.<sup>52</sup> Those meeting occurred before the Copyright Office reached out to the

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<sup>48</sup> *E.g., Reply Comments of Comcast Corp. and NBCUniversal Media, LLC, Expanding Consumers' Video Navigation Choices*, MB Dkt. No. 16-42, CS Dkt. No. 97-80 (filed May 23, 2016).

<sup>49</sup> *See, e.g., Anthony Wood, How the FCC's 'Set-Top Box' Rule Hurts Consumers*, Wall Street J. (Apr. 21, 2016) (criticizing the Commission's proposed approach to set-top boxes).

<sup>50</sup> Letter from Maria A. Pallante, Register of Copyrights, Copyright Office, to Representatives Blackburn, Butterfield, Collins, and Deutch about the FCC's Set-Top Box Proceeding (Aug. 3, 2016) (available at [https://www.publicknowledge.org/assets/uploads/documents/CO\\_set-top\\_letter\\_\(1\).pdf](https://www.publicknowledge.org/assets/uploads/documents/CO_set-top_letter_(1).pdf)).

<sup>51</sup> *Id.*

<sup>52</sup> Ernesto Falcon, *Newly-Released Documents Show Hollywood Influenced the Copyright Office's Comments on Set-Top Boxes*, Electronic Frontier Foundation (Oct. 25, 2016), <https://www.eff.org/deeplinks/2016/10/newly-released-documents-show-hollywood-influenced-copyright-offices-comments-set>.

Commission.<sup>53</sup> This revelation suggests that the Copyright Office’s “independent” expertise yielded the same argument that the Commission had been hearing from content providers all along.

When another agency uses IP concerns as a way to advocate on the part of industry, the Commission can be caught unprepared if it has not anticipated and planned to address those concerns in advance. The copyright issues present in the set-top box proceeding were almost certain to arise, and they did arise well before the Copyright Office sent its letter to the Commission. But before the Copyright Office sent its letter, the Commission seemed to brush aside the industry’s arguments about copyright. After the Copyright Office repeated the industry’s position, however, the proceeding was derailed because the Commission faced difficulty addressing the concerns raised by the Copyright Office—concerns which the Commission had previously thought could be ignored.

So long as content is distributed over telecommunications networks, copyright law and telecommunications law will intersect. For many years, the Commission has needed to address copyright issues.<sup>54</sup> But never before has the Copyright Office levied itself against the Commission on a matter. Now that this precedent has been set, the Commission should anticipate moments where other government agencies could use IP concerns to advocate on the behalf of industry.

When dealing with other agencies, the Commission needs to be prepared to have informed discussions about IP issues. The Commission cannot facilitate those kinds of discussions if it is unprepared to articulate responses to the concerns raised by other agencies. In the set-top box proceeding, at least at first, it was unclear whether the Copyright Office had raised any legitimate IP issues in its letter. Even so, the Commission should always be prepared to quickly and effectively distinguish valid IP concerns from invalid ones and make policy cuts that account for those concerns. Only then can the Commission collaborate with other agencies on IP issues that arise within the Commission’s jurisdiction.

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<sup>53</sup> *Id.*

<sup>54</sup> See, e.g., *Closed Captioning and Video Description of Video Programming*, Report, 11 FCC Rcd. 19,214, 19,263, ¶ 121 (Jul. 29, 1996).



## **II. How can the Commission address intellectual property issues?**

In response to the issues presented above, we offer some potential solutions. More than anything else, the Commission should follow the precedent of its 1961 patent policy by bringing on experts in IP law and forecasting potential IP issues at the outset of rulemakings. To help develop in-house expertise, the Commission should also consider bringing on fellows and look to other agencies that have successfully developed expertise in technical areas like IP law. In addition, the Commission should broaden its patent policy into a general intellectual property policy that would address issues of copyrights as well as patents.

### **A. The Commission should hire experts in intellectual property law.**

Because the Commission's rulemakings have been affected by IP in so many instances, the Commission should set a goal to hire a sufficient number of attorneys who have expertise in copyright law and patent law to address the kinds of issues discussed in the first section of this paper. The Commission committed to take this very step in its 1961 Patent Policy: "In view of the rapid technological advances in the communications field, the Commission has determined to augment its staff in order to permit a regularized, continuing, and current study of new technical developments relevant to its jurisdiction . . . . The Commission's staff will ascertain the assignment or licensing arrangements for significant patents either by examination of the Patent Office records or by direct inquiry to the patentee, licensees, or assignees."<sup>55</sup>

With the proper expertise, the Commission can create a clearer picture of what licenses or agreements may be at issue in a rulemaking. Further, practitioners of IP law would be able to bring valuable insights about the current state of IP policy to the Commission.

For example, the situation in the 9-1-1 example could have benefited greatly from IP experts at the Commission. Whether the Commission were to consider a rulemaking like the one that 9-1-1 service provider TCS requested or were to adopt a policy of forbearance from enforcement until reasonable terms of licensing could be negotiated, in-house experts could have led a discussion

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<sup>55</sup> See FCC Patent Policy, *supra* note 1, ¶ 4.

about fair licensing or, alternatively, looked to see whether any of the implicated patents were invalid.<sup>56</sup> Without experts at the Commission, however, 9-1-1 service providers have little to no recourse when faced with costly litigation or noncompliance.

Likewise, in the context of VRS, experts could have helped the Commission avoid a situation where new entrants needed to choose between potential infringement and noncompliance. Regardless of the Commission's final decision about reference platforms and interoperability standards for VRS, the Commission needed IP experts to help consider incumbents' IP rights and address their validity or navigate negotiations about licensing.

Finally, before the Commission is caught off guard, as it was by the Copyright Office in the set-top box proceeding, the Commission would benefit from having experts in IP law anticipate and respond quickly and effectively to IP claims that may not have merit. Experts can be found on both sides of the debate about whether or not the set-top box order would disrupt licensing agreements, and some have argued that the Commission would have the authority to promulgate such a rule even if it would disrupt licensing agreements.<sup>57</sup> However, this uncertainty about the intersection of communications law and copyright law makes clear that a genuine legal issue is present—one that the Commission could have better and more proactively addressed if it had its own IP experts.

Hiring experts is no simple task, in terms of budget, time, and effort. To mitigate the complexity of hiring, the Commission may be well served to augment its staff with IP fellows when first building expertise. The Commission could gain an awareness of the broad array of perspectives on IP policy by designing a fellowship that would pool the knowledge of academics, industry members, and others with IP expertise.

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<sup>56</sup> The TCS Petition was unclear about whether the entities asserting IP rights against TCS had valid claims. See TCS Petition, *supra* note 15.

<sup>57</sup> *E.g., compare* Meredith Whipple, *Rural Advocacy Organizations Tell FCC to Pass Set-Top Box Proposal*, Pub. Knowledge (Sept. 19, 2016), <https://www.publicknowledge.org/press-release/rural-advocacy-organizations-tell-fcc-to-pass-set-top-box-proposal>, *with* George S. Ford, *What Is the True Cost of a Set-Top Box?*, Bloomberg BNA (May 28, 2016), <https://www.bna.com/true-cost-settop-n57982073203/>.

Moreover, there is evidence that this model of expanding expertise can work. As part of the Open Government Directive, the Obama Administration recommended that government agencies appoint technologists to “proactively use modern technology to disseminate useful information,” “integrate public participation and collaboration into its activities,” and provide “a forum to share best practices on innovative ideas to promote participation and collaboration, including how to experiment with new technologies.”<sup>58</sup>

The Commission and other agencies have already seen the positive effects that outside expertise can bring to regulatory authorities.<sup>59</sup> For example, beginning in 2011, the FTC hired Chief Technologists to “advise the agency on evolving technology and policy issues.”<sup>60</sup> Since then, Chief Technologists have rallied white-hat researchers to aid the agency, produced research to support agency initiatives, and hosted workshops to inform the public about threats to data security and privacy.<sup>61</sup>

Over the years, the Commission has taken similar steps, appointing Chief Technologists to “guide[] the FCC’s work on technology and engineering issues.”<sup>62</sup> Often, the Commission’s Chief Technologists are academics who are better situated to bring in unique perspectives on technology policy from outside the Commission.<sup>63</sup> Although these fellows work most closely with the Office of Engineering and Technology, they also serve to “advise[] on matters across the agency to ensure that FCC policies are driving technological innovation.”<sup>64</sup>

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<sup>58</sup> The White House, Open Government Directive M10-06 (2009).

<sup>59</sup> See, e.g., Press Release, Federal Trade Commission, Federal Trade Commission Appoints Lorrie Cranor as Chief Technologist (Dec. 3, 2015) (available at <https://www.ftc.gov/news-events/press-releases/2015/12/federal-trade-commission-appoints-lorrie-cranor-chief>).

<sup>60</sup> Press Release, Federal Trade Commission, FTC Names Edward W. Felten as Agency’s Chief Technologist; Eileen Harrington as Executive Director (Nov. 4, 2010) (available at <https://www.ftc.gov/news-events/press-releases/2010/11/ftc-names-edward-w-felten-agencys-chief-technologist-eileen>).

<sup>61</sup> See generally Federal Trade Commission, Tech@FTC, Federal Trade Commission (last visited Nov. 21, 2016), <https://www.ftc.gov/news-events/blogs/techftc>.

<sup>62</sup> FCC, Chief and Deputy Chief Technologists of the FCC (last visited Nov. 29, 2016), <https://www.fcc.gov/general/chief-and-deputy-chief-technologists-fcc>.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

In the realm of IP, fellows could advise the Commission on IP policies in the same ways that Chief Technologists “guid[e] . . . work on technology and engineering issues.”<sup>65</sup> IP fellows could forecast issues, keep the Commission apprised of IP policy, and facilitate communications with experts at other agencies. Each of those goals is consistent with the Commission’s 1961 Patent Policy, which aimed to “secure the information necessary to protect fully the public interest in this all-important area [of intellectual property].”<sup>66</sup>

While researching this paper, some commenters we spoke with raised concerns about developing the Commission’s own expertise in IP. In particular, they expressed fear that the Commission could unnecessarily duplicate expertise already held by other government agencies.

However, we do not suggest that the Commission develop an IP policy portfolio or shape the contours of substantive IP law. Instead, we simply recommend that the Commission have the capability to address IP issues that arise within its current jurisdiction and under its existing telecommunications policy mandate.

We acknowledge that, where two agencies need to resolve overlapping jurisdictional issues, concerns about overlapping expertise can arise. For example, when the Commission released its recent order on privacy policy for Broadband Internet Access Services, Commissioner O’Rielly argued that the Commission’s Order departed from precedents set by the FTC, suggesting that double standards could result from two separate agencies’ privacy policies.<sup>67</sup>

Whatever the merits of that concern in other contexts, however, that concern is unwarranted when it comes to IP. If the Commission had the capability to collaborate with other agencies to acquire the proper kind of expertise, it would have done so already. But in practice, two factors can

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<sup>65</sup> *Id.*

<sup>66</sup> See FCC Patent Policy, *supra* note 1, ¶ 6.

<sup>67</sup> See *generally* Dissenting Statement of Commissioner Michael O’Rielly Re: Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, WC Dkt. No. 16-106 (released April 29, 2016) (available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db1102/FCC-16-148A6.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db1102/FCC-16-148A6.pdf)).

prevent the Commission from interagency collaboration: ex parte rules and the lack of IP expertise in the government.

Under certain circumstances, ex parte rules can deter agencies from speaking with each other.<sup>68</sup> While any communication that is not directed to the merits or outcome of a proceeding or matter before the Commission is exempted from the ex parte rules, agencies' communications must be disclosed.<sup>69</sup> Even if one agency is willing to record its interactions with another agency, the other is likely unwilling to record its communications. Sometimes these kinds of communications can publicize information that should not yet be made public because it would give some stakeholders an unfair advantage, increase or decrease bargaining power in certain proceedings, or even undermine investigations.

Moreover, it is unlikely that the Commission will encounter an IP issue and seek expertise from another agency when the conversation would not speak to the merits of a Commission matter. Only when IP issues arise in Commission matters is the Commission likely to seek out answers. Thus, ex parte rules can dampen the ability of agencies to communicate effectively about IP issues.

Even where the Commission is able to communicate openly with other agencies, it is unclear whether any agency has a mandate to be the government's expert on IP policy. Both the Copyright Office and the Patent and Trademark Office primarily serve to record the IP rights owned by certain people or entities.<sup>70</sup> The task of refining the contours of substantive copyright and patent law falls, in turn, to the federal courts.

Thus, non-IP agencies need to have in-house experts who understand substantive IP law. For example, both the Department of Justice and the FTC have in-house IP experts, and recently those

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<sup>68</sup> See 47 C.F.R. § 1.1204(a)(5).

<sup>69</sup> *Id.* § 1.1206(vi)(3).

<sup>70</sup> See 17 U.S.C. § 701(a) (2012) (describing the functions of the U.S. Copyright Office); 35 U.S.C. § 2(a) (describing the functions of the U.S. Patent and Trademark Office).

agencies announced new guidelines for how IP will be treated in matters of mergers and acquisitions.<sup>71</sup> The Commission should do likewise for its communications policies.

**B. The Commission should forecast potential intellectual property issues at the outset of proceedings.**

Beyond having experts to address IP issues when they arise, the Commission should use its experts and train its existing staff to forecast IP issues that may come up in proceedings. Even though it may be easier for subject-matter experts to identify and flag potential IP issues, all of the Commission's staff members should be mindful of these issues because they cannot be addressed if they are unforeseen.

An issue can compound if not addressed during a rulemaking itself, as in the 9-1-1 example, where a 9-1-1 service provider was left with a choice between infringement and noncompliance. There, the IP issues related to PAEs may have been avoided if the Commission had known that rightsholders would be likely to sue the 9-1-1 services for complying with the Commission's technical standards. For example, the Commission could have altered the technical standards to avoid infringement of any rightsholders' patents, or could have issued an opinion casting doubt on the validity of the relevant patents.

In the context of VRS, the Commission may be able to avoid putting regulated entities in a situation similar to the one 9-1-1 services faced, where they must choose between noncompliance or potential infringement. While we express no opinion on the ultimate result, we note that IP experts would allow the Commission to weigh whether or not new entrants, or other incumbents, would risk infringing Sorenson's patents.

Identifying IP issues at the outset of a proceeding will help the Commission avoid IP issues further into the rulemaking process. The Commission's first line of defense is forecasting. Anytime

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<sup>71</sup> Department of Justice & Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property (Aug. 12, 2016) (available at [https://www.ftc.gov/system/files/documents/reports/antitrust-guidelines-licensing-intellectual-property-proposed-update-1995-guidelines-issued-us/ip\\_guidelines\\_published\\_proposed\\_update.pdf](https://www.ftc.gov/system/files/documents/reports/antitrust-guidelines-licensing-intellectual-property-proposed-update-1995-guidelines-issued-us/ip_guidelines_published_proposed_update.pdf)).

the Commission looks to initiate a rulemaking, IP issues should be weighed and considered. Otherwise, they are likely to arise after becoming difficult to address.

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IP challenges are not new to the Commission. In fact, as far back as 1961 the Commission recognized that “[i]n view of the rapid technological advances” the agency needed to adjust staffing to address “new technical developments relevant to its jurisdiction.”<sup>72</sup> However, even in recent years, IP issues have presented a challenge to the Commission’s actions.

For the Commission to comply with its mandate and advance valuable societal goals through regulation, it must identify and address IP issues early and throughout relevant proceedings. IP expertise within agencies is key to the success of future and current initiatives, and staffing a combination of IP-savvy attorneys, fellows, and technology experts will help anticipate and resolve intellectual speedbumps that may slow, or halt, agency action.

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<sup>72</sup> *Structure and Practices of Video Relay Services*, *supra* note 33 at 26.

# FEDERAL COMMUNICATIONS COMMISSION

*Washington, D.C., 20554, December 1961*

## PUBLIC NOTICE

### REVISED PATENT PROCEDURES OF THE FEDERAL COMMUNICATIONS COMMISSION

The Federal Communications Commission announces that it is strengthening its patent procedures to assure that the availability of broadcast equipment and radio apparatus meeting performance standards established by the Commission's rules and regulations will not be prejudiced by unreasonable royalty or licensing policies of patent-holders. Essentially, the new procedure, which supplements existing patent procedures of long standing, provides for enlarging the staff in order that the Commission may keep currently abreast of all patents issued and technical developments in the communications field which may have an impact on technical standards approved by the Commission in the various services.

Under the Communications Act of 1934, as amended (47 U.S.C. 303(g)), the Commission is charged with the responsibility to "study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest." In this connection, the Commission promulgates technical standards for broadcasting and other radio communication services to establish requirements which its licensees must meet in order to provide the kind and quality of service desired. Such requirements may frequently be met only by the use of patented equipment. Therefore, in promulgating these technical standards and regulations, the Commission necessarily gives consideration to the effect of patent rights upon the availability of equipment that will meet the specified performance standards. In order to determine how these rights are exercised, information relating to licensing and royalty agreements is essential.

The Commission's patent policy for a number of years has been to obtain patent information whenever it becomes relevant to a particular proceeding. For example, the Commission utilized this method of obtaining patent information from system proponents in recent rule-making proceedings to establish standards to permit FM broadcast stations to transmit stereophonic programs on a multiplex basis (docket 13506). In addition, the Commission has required the principal common carriers, such as American Telephone & Telegraph Co., International Telephone & Telegraph Co., Radio Corp. of America, and Western Union to file semiannual patent reports. These procedures will continue to be utilized.

In view of the rapid technological advances in the communications field, the Commission has determined to augment its staff in order to permit a regularized, continuing, and current study of new technical developments relevant to its jurisdiction. Patent Office publications and records and technical journals will be studied and information of interest will be compiled in the Commission's files. Copies of relevant



patents as issued will be secured. The Commission's staff will ascertain the assignment or licensing arrangements for significant patents either by examination of the Patent Office records or by direct inquiry to the patentee, licensee, or assignees.

Whenever it appears that the patent structure is or may be such as to indicate obstruction of the service to be provided under the technical standards promulgated by the Commission, this fact will be brought to the Commission's attention for early consideration and appropriate action.

Through these revised and strengthened procedures, the Commission believes that it will be able to secure the information necessary to protect fully the public interest in this all-important area.

#### APPENDIX C

1. It is proposed that the following new sections be added to part 73 of Commission rules and regulations:

##### OVER-THE-AIR SUBSCRIPTION TELEVISION OPERATIONS

###### § 73.641 DEFINITIONS.

(a) *Subscription television*.—A system whereby subscription television broadcast programs are transmitted and received.

(b) *Subscription television broadcast program*.—A television broadcast program intended to be received in intelligible form by members of the public only for a fee or charge.

###### § 73.642 LICENSING POLICIES.

(a) Subscription television service may be provided only upon specific authorization therefor by the Commission. Such authorization will be issued only to:

(1) The licensee of a television broadcast station;

(2) The holder of a construction permit for a new television broadcast station; or

(3) An applicant for a construction permit for a new television broadcast station.

(b) Application for such authorizations shall be made in the manner and form prescribed by the Commission. If the Commission, upon consideration of such application, finds that the public interest, convenience, and necessity would be served by the granting thereof, it will grant such application. In the event it is unable to make such a finding, the Commission will then formally designate the application for subscription television authorization for hearing and proceed pursuant to the provisions of section 309(e) of the Communications Act and the Commission's rules and regulations applicable thereto. The Commission may impose such conditions upon the grant as may be appropriate.

(c) Holders of subscription television authorizations shall complete construction of subscription television transmitting facilities within a period of 3 months after issuance of the authorization unless otherwise determined by the Commission upon proper showing in any particular case.

(d) A subscription television authorization will not be issued or renewed for a period longer than the regular license period of the applicant's television broadcast authorization.

(e) No subscription television authorization shall be granted to a television broadcast station licensee or permittee, or to an applicant for a construction permit for such a station, having any contract, arrangement, or understanding, express or implied, which:

(1) Prevents it from rejecting or refusing any subscription television broadcast program which it reasonably believes to be unsatisfactory or unsuitable or contrary to the public interest; or substituting a subscription or conventional program which in its opinion is of greater local or national importance; or

(2) Delegates to any other person the right to schedule the hours of transmission of subscription programs: *Provided, however, That this rule shall*

not prevent a licensee, permittee, or applicant from entering into an agreement or arrangement whereby it agrees to schedule a specific subscription television broadcast program at a specific time; or

(3) Prevents it from making a free choice of subscription programs, whatever their source; or

(4) Deprives it of the right of ultimate decision concerning the maximum amount of any subscription program charge or fee.

#### § 73.648 GENERAL OPERATING REQUIREMENTS.

(a) No commercial advertising announcements shall be carried during subscription television operations except for promotion of subscription television broadcast programs before and after such programs.

(b) Charges, terms, and conditions of service to subscribers shall be applied uniformly: *Provided, however*, That subscribers may be divided into reasonable classifications approved by the Commission, and the imposition of different sets of terms and conditions may be applied to subscribers in different classifications.

(c) Any television broadcast station licensee or permittee authorized to broadcast subscription programs shall broadcast, in addition to its subscription broadcasts, at least the minimum hours of programs required by section 73.651 of the rules.

(d) If a television broadcast station supplies the only grade A signal to a community, not more than 15 percent of its nonprime broadcast time (including subscription and nonsubscription broadcast time during that period), and not more than 50 percent of its prime broadcasting time (including subscription and nonsubscription broadcast time during that period) may be devoted to subscription broadcasting; if it supplies the second or third grade A signal, not more than 25 percent of its nonprime broadcast time, and 60 percent of its prime broadcast time; if it supplies the fourth grade A signal, not more than 50 percent of its nonprime broadcast time, and 75 percent of its prime broadcast time; and if it is one of five or more stations supplying a grade A signal to the community, there is no limitation on the amount of broadcast time that may be devoted to subscription broadcasting.

(e) Except as they may be otherwise waived by the Commission in authorizations issued hereunder, the rules applicable to regular television broadcast stations will be applicable to subscription television operations.

#### § 73.644 EQUIPMENT AND TECHNICAL OPERATING REQUIREMENTS.

(a) Subscription television equipment must be approved in advance by the Commission pursuant to the "type approval" and "type acceptance" procedures now established by part 2, subpart F—Equipment Type Approval and Type Acceptance—of the Commission's rules and regulations.

Additional proposed rules concerning equipment and technical operating requirements will be announced at a later date.