

# SECONDARY MARKETS IN SPECTRUM: MAKING SPECTRUM POLICY AS FLEXIBLE AS THE SPECTRUM MARKET IT MUST FOSTER

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## I. INTRODUCTION

The demand for access to the electromagnetic spectrum has grown dramatically in the last 15 years.<sup>1</sup> This has occurred because of the dynamic proliferation of wireless communications technologies and consumer demand for services related to these technologies.<sup>2</sup> For instance, the number of mobile telephony service subscribers in the United States has grown from more than 90,000 in January 1985 to more than 86 million at the end of 1999 (approximately 32% of the U.S. pop-

ulation).<sup>3</sup> These numbers are only expected to increase.<sup>4</sup> This wireless explosion has also been a major engine of growth in both the American and global economies.<sup>5</sup>

However, as the demand for new services rises (especially spectrum-hungry mobile data services) the spectrum available to accommodate the new technologies diminishes.<sup>6</sup> The problem is compounded by the fact that there is simply no new spectrum to be allocated.<sup>7</sup> In order to free up spectrum, the Federal Communications Commis-

<sup>1</sup> The electromagnetic spectrum is the range of electromagnetic radiation in our world. Electromagnetic radiation is "energy that radiates from all things in nature and from man-made electronic systems. It includes cosmic rays, gamma rays, x-rays, ultraviolet light, visible light, infrared light, radar, microwaves, TV, radio, cell phones and all electronic transmission systems." TECHENCYCLOPEDIA, *Electromagnetic Radiation*, at <http://www.techweb.com/encyclopedia/printDefinition?term=electromagnetic%20radiation> (last visited Mar. 11, 2001).

<sup>2</sup> See *In re Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, Policy Statement*, 15 FCC Rcd. 24,178, 24,179, para. 3 (2000) [hereinafter *Secondary Markets Policy Statement*].

<sup>3</sup> See *id.* at 24,179, para. 4.

<sup>4</sup> *Id.* (noting that an increase in wireless subscribership has resulted in an accompanying increase in wireless usage); see CELLULAR TEL. & INTERNET ASSOC., FOR THE CONSUMER: FREQUENTLY ASKED QUESTIONS & FAST FACTS, at <http://www.wow-com.com/consumer/faq/> (last visited Apr. 21, 2001) (stating that there are currently more than 112 million U.S. wireless subscribers, with estimates of 45,924 new subscribers or one every two seconds in the U.S.) (citing expert estimates that by 2005 there will be more than 1.26 billion wireless phone users globally).

<sup>5</sup> As of December 2000, U.S. wireless service providers directly employ almost 185,000 people and have made almost \$ 90 billion in cumulative capital investment. See CELLULAR TEL. & INTERNET ASSOC. 3, SEMI-ANNUAL WIRELESS INDUSTRY SURVEY, available at [http://www.wow-com.com/pdf/wireless\\_survey\\_2000.pdf](http://www.wow-com.com/pdf/wireless_survey_2000.pdf) (last visited Sept. 30, 2001); see also Dale N. Hatfield, *Perspectives on the Next Generation of Communications, Keynote Address at the Opening Plenary Session of the Vehicular Technology Conference Fall 2000*, at <http://www.fcc.gov/oet/>

[smsi/Welcome.html](http://www.fcc.gov/oet/smsi/Welcome.html) (Sept. 26, 2000) [hereinafter Hatfield] (noting that economists have attributed efficiency gains primarily responsible for the economic prosperity of the last decade to the Internet and e-commerce, and that extending high-speed Internet services to mobile devices will continue such productivity gains); William E. Kennard, *Wire Less is More, Address to the Cellular Telecommunications Industry Association* (currently the Cellular Telecommunications & Internet Association), available at <http://www.fcc.gov/Speeches/Kennard/> (Feb. 28, 2000) [hereinafter Kennard] (noting that spectrum is the "life-blood" of the wireless industry and that the wireless industry cannot grow without it).

<sup>6</sup> See TECH LAW JOURNAL, FCC DISCUSSES SECONDARY MARKETS FOR WIRELESS SPECTRUM, TECH. L.J., Jan. 16, 2001, at <http://techlawjournal.com/telecom/20001110a.asp> (Nov. 10, 2000) (quoting former FCC Chairman William Kennard saying "that spectrum scarcity is the most serious challenge facing the wireless industry today and . . . [d]emand for spectrum is outstripping supply.") (noting that Kennard reflected that the problem will only intensify as demand for wireless Internet access grows); see also *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,179, para. 5 (citing analyst estimates that wireless data subscribership will reach 100 million by 2007, and that wireless data subscribers will outnumber wireline data subscribers by 2002).

<sup>7</sup> Almost all the spectrum in the United States, especially the more sought after bands below 3 GHz, has already been allocated for various services. Thus, there is little available spectrum for new services. *Id.* at 24,180, para. 7; see Harold Furchtgott-Roth, *The Only Solution Is Evolution*, RCR WIRELESS NEWS, Oct. 30, 2000, at 14, 14 [hereinafter Furchtgott-Roth] ("While other countries may be in a position to dedicate wide swaths of unused spectrum to a particular new technology, the United States has already allocated practically all of the

sion (the "FCC" or "Commission") has made several attempts to manage the spectrum efficiently by recognizing the introduction of market forces as a means of ensuring that spectrum is put to its highest valued and most efficient use.<sup>8</sup> The assignment of spectrum by competitive bidding (or auctions) has proven to be one of the most successful means of ensuring that the spectrum is being used most efficiently.<sup>9</sup> Yet, as a primary market or transaction, auctions generally only secure an initial efficiency.<sup>10</sup>

In an effort to realize efficiencies after the initial assignment (*i.e.*, post-auction), the FCC has initiated a rulemaking to facilitate the development

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radio spectrum to government or commercial uses.").

<sup>8</sup> See *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,180–81, para. 8 (citing the Commission's holding of *en banc* hearings, issuance of prior Policy Statements, enactment of specific rules for cellular and CMRS, and the formation of a Technological Advisory Committee (TAC) in order develop more flexible and efficient spectrum management policies).

<sup>9</sup> *Id.* at 24,181–82, para. 10 ("The assignment of spectrum through competitive bidding has facilitated more efficient and rapid licensing of spectrum to those who value it the most.").

<sup>10</sup> See Glen O. Robinson, *Spectrum Property Law 101*, 41 J.L. & ECON. 609, 619–20 (1998) [hereinafter Robinson] (noting that efficiencies realized at auctions only recognize the best use of the spectrum at the time of the auction because changing technological and economic circumstances may create a new highest-valued use of the spectrum after the auction).

<sup>11</sup> The term "secondary market" is a financial term referring to a market in which an investor buys a security from an investor rather than the original issuer, subsequent to the original issuance in the primary market. It is also known as an "after market" and is exemplified best by exchanges such as the New York Stock Exchange. In the context of spectrum, the original issuer is the FCC, and its initial assignment of the spectrum, usually through auctions, represents the primary market. The secondary market transaction in spectrum takes place when the original licensee leases, temporarily or for the long-term, or sells unused spectrum frequencies to a third party. Campbell R. Harvey, *Hypertextual Finance Glossary*, 7, at <http://www.duke.edu/~charvey/Courses/wpg/bfgloss.htm> (last visited Sept. 30, 2001); *In re Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, *Notice of Proposed Rulemaking*, 15 FCC Rcd. 24,203, 24,204–05, paras. 1–4 (2000) [hereinafter *Secondary Markets NPRM*] (stating that the Commission opened that proceeding to effectuate the goals and principles of the *Secondary Markets Policy Statement*) (choosing the development of more complete secondary markets to promote the efficient use of Commission-licensed spectrum; thus, freeing up more spectrum for emerging applications).

<sup>12</sup> See *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,182–83, para. 12 ("An effectively functioning system of secondary markets would encourage licensees to be more spectrum efficient by freely trading their rights to . . . unused frequencies.").

of secondary markets in spectrum.<sup>11</sup> Secondary markets represent opportunities to use more fully the entire available spectrum.<sup>12</sup> Secondary markets in spectrum have existed for years, and they are comprised of different arrangements.<sup>13</sup> Of these arrangements, however, spectrum leasing is the most efficient arrangement because of its flexibility.<sup>14</sup> Spectrum leasing allows licensees to part with unused or underused spectrum temporarily on terms and for periods of time that licensees set to meet their individual private or commercial needs.<sup>15</sup> The best example of spectrum leasing is the Commission's authorization of Instructional Television Fixed Service ("ITFS")<sup>16</sup> licensees to

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<sup>13</sup> Current secondary markets in radio spectrum exist primarily through assignment or transfer of control of licenses; however, they also exist through arrangements where licensees do not relinquish control of the spectrum, such as management agreements, joint marketing agreements and resale agreements, and through partial assignments produced by disaggregating and partitioning portions of frequencies. See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,208–09, para. 15. Among these mechanisms, the Commission has placed the most hope in partitioning and disaggregation as means of creating secondary markets. Partitioning occurs when a licensee divides its geographic service area and sells a portion to another party. Similarly, disaggregation involves the division and sale of a licensee's licensed frequencies. As discussed below, these mechanisms have failed to be successful for several reasons. See *infra* note 130.

<sup>14</sup> The Commission defines a "spectrum lease" in this proceeding as an arrangement where a licensee makes excess spectral capacity available to another party while retaining the license. In this arrangement, the licensee is the lessor (the party who conveys possession of a thing under a lease), and the other party is the lessee (the party who has possession of the thing under the lease). *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,178, para. 1 n.1; see RANDOM HOUSE WEBSTER'S DICTIONARY OF THE LAW 266 (2000) (defining lessor and lessee, respectively); see also Comments of Securicor Wireless Holdings, Inc. to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 4 (Feb. 9, 2001) [hereinafter *Securicor Comments to Secondary Markets NPRM*] (citing spectrum leasing as the most flexible of the arrangements comprising secondary markets in spectrum).

<sup>15</sup> *Id.* at 4 ("[S]pectrum leasing makes sense to licensees because it places spectrum that might otherwise go unused or underutilized into use, producing more revenue for licensees, while allowing licensees to maintain their core asset—their licensed spectrum."); see *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,183, para. 13 ("The lessor would realize income while maintaining control of spectrum that it might need to meet long term strategic objectives, while the lessee would be able to make a profit by providing service to otherwise under-served customers.").

<sup>16</sup> The Instructional Television Fixed Service (ITFS) is comprised of twenty television channels that the Commission may license to educational institutions for instructional purposes. NATIONAL ITFS ASSOCIATION, WHAT IS ITFS?, at [http://www.itfs.org/articles/about\\_itfs.htm](http://www.itfs.org/articles/about_itfs.htm) (last visited Apr. 21, 2001).

lease excess spectral capacity to Multichannel Multipoint Distribution Service ("MMDS")<sup>17</sup> operators. These arrangements have resulted in mutually beneficial relationships where MDS operators help construct and maintain ITFS facilities in exchange for leased portions of ITFS underutilized spectrum.<sup>18</sup>

Despite the success of the ITFS/MDS and other leasing arrangements, the development of secondary markets has been slowed by cumbersome regulations coupling the spectrum with the assets implemented in its use; thus, it results in an uncertainty that deters parties from entering into leasing agreements.<sup>19</sup> In an effort to correct this regulatory barrier, the secondary markets rulemaking attempts to liberalize the Commission's spectrum leasing rules enough to uncouple the spectrum and its related assets to allow for the enhanced regulatory certainty and freedom sought.<sup>20</sup> Given the intense concern over a potential "spectrum drought," it is likely that the Commission will adopt such rules to speed the development of secondary markets.<sup>21</sup>

Eventually, it is hoped that secondary markets

will evolve into spot markets where spectrum will be bought and sold on exchanges according to supply and demand at that moment.<sup>22</sup> Critical new technologies, like software-defined radio, will be needed to spur this development.<sup>23</sup> However, equally important to technological development is the development of regulatory policy that facilitates application of these new technologies.<sup>24</sup> Rule changes may not be enough to effectuate fully this change. As a result, the underlying statutory scheme and the policies it supports must be transformed.

This comment follows the evolution of spectrum policy in the context of assignments and transfers. First, this comment provides a broad overview of how the relationship between spectrum users and the spectrum license has evolved and seen the reemergence of market forces and competition theory in that area. Second, this comment examines the statutory and regulatory standards spectrum users face when attempting to act on market forces by entering into spectrum leasing agreements. Third, this comment will analyze the current FCC rulemaking and explain how it

<sup>17</sup> The Commission established the Multipoint Distribution Service (MDS) in 1972. Originally intended to deliver business data, MDS increasingly became used to deliver television broadcast signals to specific subscriber households. Responding to this trend, the Commission reassigned eight ITFS channels to MDS; thus it created the Multichannel Multipoint Distribution Service (MMDS) to provide video programming to subscribers and acquired the name "Wireless Cable." See MASS MEDIA BUREAU, VIDEO SERVICE DIVISION, FEDERAL COMMUNICATIONS COMMISSION, MULTIPPOINT DISTRIBUTION SERVICE (MDS), at <http://www.fcc.gov/mmb/vsd/md/md.html> (last visited June 14, 2001); see also WHATIS?COM, MULTICHANNEL MULTIPPOINT DISTRIBUTION SERVICE, at [http://whatis.techtarget.com/definition/0,289893,sid9\\_gci505606,00.html](http://whatis.techtarget.com/definition/0,289893,sid9_gci505606,00.html) (last modified Dec. 11, 2000); 47 C.F.R. § 74.931(e) (2000) (authorizing ITFS operators to lease spectrum to MDS operators on a for-profit basis); 47 C.F.R. § 21.13(f) (2000) (authorizing MDS operators to lease from ITFS operators).

<sup>18</sup> See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,234-35, para. 86 (stating that several technical rules were relaxed to permit spectrum leasing arrangements between MDS and ITFS licensees) (citing *In re Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, Report and Order*, 13 FCC Rcd. 19,112, 19,114, para. 4 (1998)).

<sup>19</sup> According to Arthur DeVany the spectrum "aftermarket is encumbered by the illiquidity created by the bundling of spectrum with the assets that use it . . . Only when we have unbundled spectrum and broadcasting assets to create deep and liquid markets in spectrum bandwidth and its derivatives will we capture the full promise of spectrum markets." Arthur DeVany, *Implementing a Market-Based Spectrum Policy*, 41 J.L. & ECON. 627, 628 (1998) [hereinafter

DeVany] (comparing secondary markets to existing capital markets).

<sup>20</sup> See *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,184-85, para. 16 (seeking greater regulatory certainty that will alleviate resistance to secondary market transactions).

<sup>21</sup> See Kennard, *supra* note 5 ("We will head off a spectrum drought if we build on the successes of the past: expanding on the market-based approaches of the last decade; finding more ways to create a fluid market in spectrum.").

<sup>22</sup> The Commission has accepted the premise that spectrum is a fungible good that may be used for multiple purposes, and therefore, it should be traded like other commodities, such as oil, gas, and pork bellies. Most importantly, the Commission draws a parallel between potential secondary markets in spectrum and the spot markets that have emerged for wireline bandwidth. See *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,158, para. 17, (citing Sharon Crowe, *Testimony Before the Public Forum on Secondary Markets in Radio Spectrum*, 49-56, available at <http://www.fcc.gov/realaudio/tr053100.pdf> (May 31, 2000)) [hereinafter *Public Forum*].

<sup>23</sup> As explained later in the comment, software-defined radio and other digital communications technologies enable spectrum to be used for a particular service in multiple frequencies. As a result, spectrum users become more aware of the spectrum's value and willing to participate in what becomes fluid secondary markets for spectrum. See discussion *infra* Part V.A. and accompanying footnotes.

<sup>24</sup> Aside from the proposed amendment of its other rules to provide spectrum users with the incentive to deploy such technologies, the Commission specifically seeks to amend its technical rules to allow the multiple frequency use of such technologies. See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,233-35, paras. 83-88.

aims to foster secondary markets by simplifying the process of spectrum leasing. Fourth, this comment will explain how the FCC's likely course of action after the rulemaking will be sufficient to foster relatively static leasing agreements, but also will ignore potential opportunities to prepare the regulatory environment for new and more technologically efficient spectrum applications and markets. Finally, this comment suggests regulatory and statutory alternatives to prepare for those emerging technologies and markets.

## II. OVERVIEW OF SPECTRUM POLICY

### A. Property rights in spectrum

To understand completely the current regulatory movement favoring the development of greater property rights in spectrum and secondary spectrum markets, one must first consider the evolution of spectrum policy. In doing so, it becomes clear that the process of allocating and assigning spectrum has changed the expectations of spectrum users when they actually use, transfer or exclude others from their assigned spectrum frequencies.<sup>25</sup>

#### 1. *In the Beginning: De Facto Property Rights in Spectrum*

In the early days of radio, there was a short pe-

riod of spectrum assignment that resembled a frontier where the first to use or "settle" a given frequency acquired a proprietary interest in that frequency.<sup>26</sup> This phenomenon was largely unaffected by the passage of the Radio Act of 1912, which required a spectrum user to acquire a Department of Commerce and Labor license before operating.<sup>27</sup> The impact of the 1912 legislation was minimal primarily because it was silent as to licensees' property rights over the spectrum and their ability to transfer use of their assigned frequency.<sup>28</sup> This regulatory vacuum was not a problem until technological improvements and radio's growing popularity increased traffic over the nascent medium to the point where significant interference resulted.<sup>29</sup> According to conventional historical accounts, this interference prompted the Secretary of Commerce and Labor to begin assigning and denying licenses based on interference considerations.<sup>30</sup> After several legal decisions declared that the Secretary of Commerce and Labor did not have the authority to take such action,<sup>31</sup> the continuing regulatory vacuum gave way to a vortex of interfering spectrum users that threatened the future of radio and seemed to cry

<sup>25</sup> Columbia University Professor of Finance and Economics Eli M. Noam has distinguished three "paradigm shifts" in the history of spectrum policy (occupancy, administrative, and auction), as well as an emerging fourth paradigm (open access) that may again alter the way spectrum is regulated. Eli Noam, *Spectrum Auctions: Yesterday's Heresy, Today's Orthodoxy, Tomorrow's Anachronism: Taking the Next Step to Open Spectrum Access*, 41 J.L. & ECON. 765, 766-70 (1998) [hereinafter Noam].

<sup>26</sup> See *id.* at 766 (describing the early period, or "occupancy paradigm" as an "electronic original state of nature").

<sup>27</sup> 47 U.S.C. § 51 (repealed 1927). The Wireless Ship Act of 1910 was actually the first legislation to address radio by requiring all ships carrying over 50 passengers out of a U.S. port to have ship-to-shore radio onboard. Wireless Ship Act of 1910, Pub. L. No. 61-262, 36 Stat. 629 (repealed 1934).

<sup>28</sup> See *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 210 (1943) (noting that the Radio Act of 1912 "forbade the operation of radio apparatus without a license from the Secretary of Commerce and Labor[,] . . . allocated certain frequencies for the use of the Government, and imposed restrictions upon the character of wave emissions.").

<sup>29</sup> See *id.* at 210-11 (noting that because there were more stations than frequencies available by the early 1920's, every station in the standard broadcast channel was occupied by at least one and, in some cases, several users); see also Noam,

*supra* note 25, at 766 (explaining that the likelihood of radio interference was high given the limited number of bands under users' mastery and that technological advancements were being made more in the area of radio transmission distance than the separation of signals).

<sup>30</sup> *Nat'l Broad. Co.*, 319 U.S. at 211 (recounting that the Secretary of Commerce and Labor first began by dividing the spectrum into many bands, assigning specified frequencies in those bands to particular established stations, and then attempting to limit licenses to operation at certain powers and times to enable licensees to share frequencies).

<sup>31</sup> See *Hoover v. Intercity Radio Co.*, 286 F. 1003, 1004-07 (D.C. Cir. 1923) (holding that the Secretary of Commerce and Labor could not deny a radio license to an applicant on the alleged ground that it would cause interference with existing private and government stations); see also *United States v. Zenith Radio Corp.*, 12 F.2d 614 (N. D. Ill. 1926) (holding Secretary of Commerce and Labor lacked the power to impose restrictions on a licensee's frequency, power, and hours of operation, and that the use of spectrum not assigned to a licensee did not violate the Radio Act of 1912). These decisions were followed by an advisory opinion by the Attorney General finding that the Radio Act of 1912 gave the Commerce and Labor Secretary no authority to regulate frequency, power or hours of operation, and then the Secretary's announcement that he would completely forsake

out for a legislative solution.<sup>32</sup>

2. *The physical scarcity doctrine and the regulatory administration of spectrum*

Congress responded to the interference problem by enacting the Radio Act of 1927 which instituted the first major transition in spectrum regulatory policy.<sup>33</sup> The Radio Act of 1927 [the "Radio Act"] ushered in the basic form of governmental administration of the spectrum that we know today.<sup>34</sup> The Federal Communications Act of 1934 [the "Communications Act"], which incorporated the Radio Act's basic provisions and created the FCC to oversee the regulation of commercial spectrum and common carrier telephony, followed soon after the Radio Act.<sup>35</sup> The Communications Act, like the Radio Act, established that the federal government "owned" the spectrum in trust for the public and could only allow spectrum use that served the "public interest, convenience and necessity."<sup>36</sup> The Communications Act states that spectrum licensees do not hold and must

waive any ownership interest in the frequency that they are assigned.<sup>37</sup> The Communications Act established an application process by which the Commission exercises its power and discretion<sup>38</sup> and requires licensees to acquire government approval before transferring control of a license.<sup>39</sup> In addition, the Communications Act empowered the government to make licenses available at zero price and almost automatically renewable.<sup>40</sup>

The process of spectrum assignment that emerged from this transition to government oversight essentially created four stages of spectrum regulation.<sup>41</sup> First, the FCC allocates a specific band of spectrum to a particular use. Second, the FCC determines service rules, such as the power of the signal. Third, the FCC assigns (or grants) licenses to individuals for operating in an allocated spectrum band and in keeping with the service rules. Fourth and finally, the FCC enforces each of the other three stages to ensure efficient spectrum use.<sup>42</sup>

In enacting both the Radio Act and Communications Act, Congress reasoned that radio spec-

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regulation of radio. See *Nat'l Broad. Co.*, 319 U.S. at 212.

<sup>32</sup> See *id.* at 212 (noting that the interference resulted in confusion and chaos so disturbing that President Hoover urged Congress for legislation to remedy the situation that had been allowed to grow in the regulatory conflict's paralyzing shadow).

<sup>33</sup> Radio Act of 1927, Pub. L. No. 69-632, 44 Stat. 1162, 1171-72 (1927) (repealed by the Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (1934)); See *Nat'l Broad. Co.*, 319 U.S. at 212-14 (recounting that the Communications Act adopted the four basic provisions of the Radio Act and replaced the agency created by the Radio Act, the Federal Radio Commission, with the Federal Communications Commission).

<sup>34</sup> See Noam, *supra* note 25, at 766-68 (describing the post-Radio Act of 1927 period as the "administrative paradigm" that remains fundamentally intact despite the recent introduction of market based policies, resulting in a single "licensed exclusivity" paradigm).

<sup>35</sup> Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064, 1066 (1934) (codified as amended at 47 U.S.C. §§ 151-710 (1994)); see *FCC v. Pottsville Broad. Co.*, 309 U.S. 134, 137 (1940) (confirming incorporation of the Radio Act into the Communications Act).

<sup>36</sup> 47 U.S.C. § 307(a) (1994) (enabling the Commission to grant license applications if public interest, convenience and necessity are served); 47 U.S.C. § 308(a) (1994) (stating that the Commission may issue a license only upon written application); 47 U.S.C. § 309(a) (1994) (requiring the Commission to make public interest, convenience and necessity analysis for each application filed).

<sup>37</sup> 47 U.S.C. § 301 (1994) (stating "no such license shall be construed to create any right, beyond the terms, conditions, and periods of the license"); 47 U.S.C. § 304 (1994) (requiring a prospective licensee to waive "any claim to the use of any particular frequency or of the electromagnetic

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spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise").

<sup>38</sup> 47 U.S.C. § 301 (requiring spectrum users to hold a license before operating on the spectrum); 47 U.S.C. § 309 (laying out the application process).

<sup>39</sup> As discussed at length later in this comment, 47 U.S.C. § 310(d) (1994) requires licensees to obtain Commission approval before transferring control of their license or facilities. See discussion *infra* Part III.A.

<sup>40</sup> Since a license technically does not confer any property rights under the Act, a licensee need not pay anything, other than an application fee, for the license. Although 47 U.S.C. § 309(j) (1995 & Supp. IV 1998) authorizes the Commission to implement auctions (competitive bidding) in assigning licenses, a winning auction bid is technically not a payment for the license, but only an objective indicator the Commission can use to determine who values the spectrum the most. As will be explained later in the article, the Commission has employed other assigning licenses not involving economic inputs. 47 U.S.C. § 309 (authorizing the Commission to employ several methods (comparative hearings, lotteries and auctions) in granting licenses); see Lawrence J. White, "Propertyizing" the Electromagnetic Spectrum: Why it's Important, and How to Begin, 9 MEDIA L. & POL'Y 19, 24 (2000) [hereinafter White] (noting that the Commission and its predecessor, the Federal Radio Commission, have turned the spectrum license into a quasi-property right by assigning spectrum at zero price with almost automatic certainty); see generally Lili Levi, *Not With a Bang But a Whimper: Broadcast License Renewal and the Telecommunications Act of 1996*, 29 CONN. L. REV. 243 (1996) (giving a detailed analysis and criticism of the Commission's creation of renewal expectancy).

<sup>41</sup> White, *supra* note 40, at 23-24.

<sup>42</sup> *Id.* at 24; 47 U.S.C. § 303 (1994) (laying out the powers and duties of the Commission).

trum is a scarce resource belonging to the general public and that, if left unsupervised, interference caused by a few users would render the medium virtually useless to everyone else.<sup>43</sup> The Supreme Court laid out this argument in *National Broadcasting Co. v. FCC*<sup>44</sup>. Then, the Court memorialized it as the “physical scarcity doctrine” in *Red Lion Broadcasting v. FCC*,<sup>45</sup> where it held that the government is not only justified, but obligated to prevent the confusion and chaos of radio interference by managing the spectrum.<sup>46</sup>

While the FCC and courts embraced the physical scarcity doctrine, many contemporary legal and economic theorists have taken more critical views of the government’s decision to intercede in spectrum assignment.<sup>47</sup> Former University of California-Davis Professor of Economics Thomas Hazlett asserts that the true impetus for regulation was not interference-driven scarcity, as *National Broadcasting Co.* and *Red Lion Broadcasting* asserted, but rather came from the search for political and economic gains among well-positioned powerbrokers.<sup>48</sup> In criticizing the current spectrum-licensing regime and advocating a return to *de facto* spectrum property rights, Hazlett argues that interference and the scarcity issue were made up by politicians eager to gain content control over the powerful new medium and cooperative broadcasters seeking limited competition and guaranteed free rents to create a system of government-imposed scarcity.<sup>49</sup>

<sup>43</sup> See *Nat’l Broad. Co.*, 319 U.S. at 212 (“Congress acted upon the knowledge that if the potentialities of radio were not to be wasted, regulation was essential.”).

<sup>44</sup> *Id.* at 227.

<sup>45</sup> 395 U.S. 367 (1969).

<sup>46</sup> *Id.* at 389–90 (holding that, in light of spectrum’s physical scarcity, the First Amendment right to free speech of some spectrum users must be restricted, via regulation, in order to protect the majority of spectrum user’s free speech rights from being infringed upon by interference).

<sup>47</sup> Legal scholars, who are unconvinced by the scarcity doctrine, have argued alternatively that the truly unique nature of broadcast television and radio is what separates it from other media (i.e., print) and makes its heightened regulation more appropriate. See ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 235 (1983); LUCAS A. POWE, JR., *AMERICAN BROADCASTING AND THE FIRST AMENDMENT 197–212* (1987).

<sup>48</sup> Thomas W. Hazlett, *Physical Scarcity, Rent Seeking, and the First Amendment*, 97 COLUM. L. REV. 905, 913 (1997) [hereinafter Hazlett].

<sup>49</sup> *Id.* at 919–21 (noting politicians’ concern over the social and political import of the powerfully invasive medium, their immediate censorship of radio content, and broadcasters’ eagerness to self-regulate, rather than challenge censor-

ship). According to Hazlett, the period preceding the Radio Act was actually marked by the “orderly development” of a system of spectrum assignment and operation relatively free from interference.<sup>50</sup> As noted above, the limited scope of the Radio Act of 1912 had essentially given a *de facto* property interest to the first user of a frequency and even spawned privately orchestrated time-sharing agreements and avenues of redress to resolve interference disputes.<sup>51</sup>

Hazlett points to yearly growth of radio set sales that lasted until 1926 to support his version of the regulatory transition.<sup>52</sup> According to Hazlett, it was not until 1926 that the alliance of politicians and broadcasters discovered the interference and scarcity issue, which resulted in a legal crisis that eliminated the existing *de facto* property right system and its underlying regulatory structure.<sup>53</sup> This left a regulatory vacuum in which chaos thrived, true interference materialized, the scarcity doctrine gained political currency and the power elite assumed control of the medium in the name of the public interest.<sup>54</sup> However, regardless of the physical scarcity doctrine’s veracity, it undeniably fueled the transition to government administration of the spectrum that has survived to this day.

### 3. *The transition to lotteries and auctions*

Because licenses were granted at a zero price

ship).

<sup>50</sup> *Id.* at 913–15.

<sup>51</sup> See *Tribune Co. v. Oak Leaves Broad. Station* (Cir. Ct., Cook County, Ill. 1926) (recognizing a broadcaster’s property right in the spectrum); Hazlett, *supra* note 48, at 913–15 (noting private agreements to share spectrum and resolve interference disputes).

<sup>52</sup> Hazlett, *supra* note 48, at 915–17 (noting radio set sales dropped after steady growth when the Secretary of Commerce and Labor abandoned attempts to enforce the *de facto* property rights system that flourished under the minimal license requirements of the Radio Act of 1912).

<sup>53</sup> Hazlett recounts then-Secretary of Commerce and Labor Herbert Hoover’s efforts to have the federal courts invalidate the *de facto* property rights regime, so that a system giving government greater regulatory discretion could be installed to the benefit of the politically powerful. *Id.* at 917–24.

<sup>54</sup> Hazlett also relies on the memoirs of one of the congressional architects of the Radio Act and Communications Act, U.S. Senator Clarence C. Dill, to show that legislators enacted legislation to stave off common law decisions granting licensees legally enforceable property rights over their licensed spectrum. *Id.* at 919, 924–26.

and license renewals were almost always guaranteed, the value of spectrum licenses and the stakes surrounding the process of their assignment skyrocketed shortly after the new process of government regulation began.<sup>55</sup> Until later amendments were made to the Communications Act, the FCC initially assigned mutually exclusive licenses (where two or more applicants exist) through comparative hearings; in comparative hearings, the applicant deemed to be the best suited to serve the public interest was selected.<sup>56</sup> Of course, as the value of licenses soared and their duration remained indefinite, comparative hearings proved unable to serve the public interest effectively.<sup>57</sup> The FCC was stuck with the existing political dynamic identified by Hazlett<sup>58</sup> and swamped with applications from parties looking to exploit new technologies and the increased spectral bandwidth they delivered.<sup>59</sup> The result was a series of inefficient assignments and uses of spectrum contrary to the public interest.<sup>60</sup>

Congress initially responded to this crisis by authorizing the FCC to implement lotteries for assigning licenses.<sup>61</sup> While lotteries assigned li-

censes efficiently, they were also “arbitrary” and resulted in windfalls for speculators whose only interest in the license was to sell it to another party at a considerable profit.<sup>62</sup> After lotteries proved to be a losing concept, Congress authorized the FCC to auction off spectrum licenses and ushered in the next major transition in spectrum policy.<sup>63</sup>

While Congress did not authorize spectrum license auctions until passage of the Omnibus Budget Reconciliation Act of 1993 (the “Budget Act”),<sup>64</sup> the concept of spectrum auctions has been around since the early 1950’s, when law student Leo Herzel first advocated the sale of spectrum to the highest bidder in a 1951 law review article.<sup>65</sup> The idea of spectrum auctions was then adopted and cultivated by law and economics theorists like Ronald H. Coase.<sup>66</sup> These theorists stressed that auctions ensured that the spectrum was put to its most highly valued and efficient use. Their theory was criticized sharply at first, especially at the FCC.<sup>67</sup> However, as the power and logic of the auction concept continued to burn brightly, auction advocates gained disciples and their message eventually became gospel to most

<sup>55</sup> See White, *supra* note 40, at 26 (“With licenses distributed for free, incumbent license holders often have an extremely valuable privilege that they are understandably reluctant to see undermined.”); Noam, *supra* note 25, at 767 (noting that spectrum’s value grew as it was used more widely).

<sup>56</sup> 47 U.S.C. § 309(a) (requiring the Commission to make a public interest determination before granting a license to an applicant); *Ashbacker Radio Corp. v. FCC*, 326 U.S. 327, 333 (1945) (initiating comparative hearings by holding that granting a license after only hearing from one of two or more mutually exclusive applicants deprives the loser of a meaningful hearing opportunity guaranteed by § 309(a), even if the loser has a hearing set for a later date); Noam, *supra* note 25, at 766 (stating that comparative hearings resulted in assignment to private firms based on connections and effective lobbying).

<sup>57</sup> See White, *supra* note 40, at 26.

<sup>58</sup> See Noam, *supra* note 25, at 767 (explaining that as the spectrum value rose in proportion to administratively-imposed scarcity, broadcasters lobbied regulators and politicians for stronger monopoly rents, while regulators and politicians exacted greater content control and political capital from broadcasters); White, *supra* note 40, at 26 (noting that extensive corporate lobbying often results in noncompetition-based selection of marketplace winners and losers as capital is not put to its most productive use).

<sup>59</sup> See Noam, *supra* note 25, at 767 (explaining that the emergence of cablecasters and mobile providers and their insatiable appetite for spectrum set the stage for change); Thomas W. Hazlett, *Assigning Property Rights to Radio Spectrum Users: Why Did the FCC License Auctions Take 67 Years?*, 41 J.L. & ECON. 529, 556 (1998) (“[N]onbroadcast services emerged to challenge [the] ‘broadcast hegemony’ in the 1980s.”).

<sup>60</sup> See White, *supra* note 40, at 25–26 (citing protection of local network broadcasters from competition by the unbalanced structuring of local markets and delay of cellular rollout as instances of inefficient assignments).

<sup>61</sup> 47 U.S.C. § 309(i) (1994 & Supp IV 1998) (authorizing the FCC to implement “random selection” (i.e., lotteries) to assign licenses).

<sup>62</sup> Noam, *supra* note 25, at 767; White, *supra* note 40, at 24.

<sup>63</sup> 47 U.S.C. § 309(j) (authorizing FCC to implement “competitive bidding” (i.e., auctions) to assign licenses).

<sup>64</sup> Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 6002(c), 107 Stat. 312, 396 (1993) (authorizing auctions by adding § 309(j) to the Communications Act).

<sup>65</sup> Leo Herzel, “Public Interest” and the Market in Color Television Regulation, 18 U. CHI. L. REV. 802, 811 (1951).

<sup>66</sup> R. H. Coase, *The Federal Communication Commission*, 2 J.L. & ECON. 1 (1959) [hereinafter Coase].

<sup>67</sup> At the time spectrum auctions began to be suggested by Herzel and Coase, FCC Chief Economist Dallas Smythe’s statements placing spectrum auctions beyond the pale of reasonable contemplation was representative of the general opinions of those in academia, policymakers and broadcasters of the day. Noam, *supra* note 25, at 768; R. H. Coase, *Comment on Thomas W. Hazlett: Assigning Property Rights to Radio Spectrum Users: Why Did FCC License Auctions Take 67 Years?*, 41 J.L. & ECON. 577, 579 (1998) (recalling FCC Commissioner Philip S. Cross’ question during Coase’s testimony before the Commission of whether Coase’s testimony was “‘all a big joke’”) (quoting an internal Rand Institute analysis of his auction proposal as stating, “I know of no country on the face of the globe—except for a few corrupt Latin American dictatorships—where the ‘sale’ of the spectrum could even be seriously proposed.”).



economists and policymakers.<sup>68</sup> By 1993, the administrative and political headaches of comparative hearings and the arbitrage of lotteries combined with rising budget deficits made the efficiency and revenue-raising potential of auctions attractive enough for Congress to pass the Budget Act and its amendment to the Communications Act (section 309(j) which authorizes spectrum license auctions).<sup>69</sup>

#### 4. *The reemergence of property rights in spectrum policy*

Today, spectrum auctions are clearly the preferred method of assigning licenses.<sup>70</sup> As noted, they are more efficient than comparative hearings, more effective at putting the spectrum to its highest valued use than lotteries, and represent a tremendous revenue stream for the government.<sup>71</sup> More importantly, the use of auctions has

reintroduced the concept of property rights into spectrum regulatory policy.

Under a traditional realist approach, property is a "bundle of rights."<sup>72</sup> The right to exclude, the right to use, and the right to alienate or transfer property are among the most important rights in the bundle.<sup>73</sup> When these rights are restricted by ambiguous or overly burdensome regulations, property owners become uncertain of their rights.<sup>74</sup> This "regulatory uncertainty" makes owners less likely to invest in their property.<sup>75</sup> However, when such regulations are eliminated, or at least clarified, owners may use their property more confidently.<sup>76</sup> In the context of spectrum, the Commission has vested rights in licenses very similar to those of the more conventional forms of property.<sup>77</sup> As a result, when licensees have clearer ideas of their rights (like other property holders), they are more willing to invest in innovative technologies that more efficiently use spec-

<sup>68</sup> Noam, *supra* note 25, at 768.

<sup>69</sup> While it is clear that budgetary considerations made auctions more acceptable on Capitol Hill, Congress directly prohibited the Commission from considering potential federal revenues from auctions when granting licenses or promulgating rules. 47 U.S.C. § 309(j)(7); *see also* White, *supra* note 40, at 25 (noting the congressional desire to offset budget deficits with spectrum auction proceeds).

<sup>70</sup> *See* Noam, *supra* note 25, at 768 ("Today, the advocates of this auction paradigm are in the driver's seat.").

<sup>71</sup> As of Feb. 23, 2001, the Commission's auctions have generated almost \$42 billion in revenues. These results are calculated from the data that can be found on the FCC website at [www.fcc.gov/wtb/auctions](http://www.fcc.gov/wtb/auctions).

<sup>72</sup> Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347 (1967) (characterizing property as a bundle of rights and property's value as the market value of those rights).

<sup>73</sup> *See* JOSEPH WILLIAM SINGER, PROPERTY LAW: RULES, POLICIES, AND PRACTICES 4-5 (2d ed. 1997) (listing the most important property rights as being: 1) the liberty to use; 2) the right to exclude; 3) the power to transfer; 4) the power to devise or bequeath; 5) immunity from damage; and 6) immunity from expropriation). *See generally* J.E. Penner, *The "Bundle of Rights" Picture of Property*, 43 UCLA L. REV. 711 (1996) (detailing a comprehensive critical analysis of property as a bundle of rights).

<sup>74</sup> Former FCC Commissioner Harold Furchtgott-Roth vigorously asserts that while firms accept a basic level of "market uncertainty" as to the property, contract and liability rules of a market regulatory action by government (who is often a market participant) raises uncertainty about what the future will hold and disrupts the natural competitive balance of the market. *See In re Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, Notice of Proposed Rulemaking*, 15 FCC Rcd. 24,203, 24,259 (Separate Statement of Harold Furchtgott-Roth) (2000) [hereinafter *Furchtgott-Roth's Statement to Secondary Markets NPRM*].

<sup>75</sup> Regulatory uncertainty causes asset values to decline, while market participants are simultaneously discouraged from engaging in transactions. *See id.* Unsurprisingly, by discouraging investment, regulatory uncertainty directly impedes technological advances. Edie Herman, *Regulatory Impediments Blamed for Technology Lag*, WARREN'S WASH. INTERNET DAILY, Feb. 26, 2001, at 3,4 (quoting current IBM Director of Internet Technology and former White House and FCC official Mike Nelson as saying, "the Internet revolution is less than 3% complete" partly because regulatory uncertainty discourages investment and deters the deployment of new products).

<sup>76</sup> It is not until buyers and sellers in a market have complete information on the existing and future rights associated with their property that the "market uncertainty" necessary for efficient, volatile markets exists. *See Furchtgott-Roth's Statement to Secondary Markets NPRM*, 15 FCC Rcd. at 24,259.

<sup>77</sup> Noted telecommunications policy experts Howard Shelanski and Peter Huber assert that while the language of the Communications Act denies licensees an "ownership right" in the spectrum, the statute has allowed the Commission to vest licensees with so many of the same rights as conventional forms of property that a license may now be considered an administratively created quasi-property right. These experts recognize licensees' right to exclude others in the Commission's interference and unauthorized reception protections, the right to use in the Communications Act's grant of unrestricted transmission rights within boundaries and the right to alienate in § 310(b)'s requirement that the Commission treat license transfer hearings like initial licensing or renewal hearings. *See* Howard A. Shelanski & Peter W. Huber, *Administrative Creation of Property Rights to Radio Spectrum*, 41 J.L. & ECON. 581 (1998); *see also* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 33 (2d ed. 1977) [hereinafter POSNER] (asserting there are property rights in spectrum frequencies because "[o]nce obtained[,] the right is transferable . . . [a]nd it is for all practical purposes perpetual.").



trum.<sup>78</sup> Competition then increases as new market entrants attempt to take advantage of new technologies and the newly liberated spectrum that the technology helped create.<sup>79</sup> Ultimately, the public interest is more effectively served when spectrum users' property rights are clarified by the Commission.<sup>80</sup>

While the Commission has created administratively quasi-property rights for licensees through its auctions and rules, policymakers are now seeking to introduce even clearer and stronger property rights and market forces into other areas under the Commission's jurisdiction.<sup>81</sup> The secondary markets rulemaking currently before the Commission is a direct result of that effort.<sup>82</sup> This rulemaking is essentially an effort to clarify the right of licensees to alienate or transfer their interests (licenses) in order that individual licensees (and the market as whole) may reap the economic and technological benefits described above. However, to achieve this clarity, the FCC must reconcile the push toward greater property rights with the current system of administrative oversight in the Communications Act and FCC regulations.

### III. CHALLENGES POSED BY THE ACT AND BY FCC STANDARDS

#### A. The FCC's requirements to approve license alienation: Section 310(d) of the Communications Act

As noted above, the secondary markets

rulemaking is intended to give greater property rights to spectrum licensees, particularly the right to assign, lease, or transfer control of a license or construction permit.<sup>83</sup> The Commission seeks to use the secondary markets rulemaking proceeding to amend its rules regarding license ownership restrictions and its tests for *de facto* transfers of control to achieve this end.<sup>84</sup> The Commission's statutory mandate to review and pass judgment on the transfers stems from Section 310(d) of the Communications Act:

No construction permit or station license, or any rights thereunder, shall be transferred, assigned, or disposed of in any manner, voluntarily or involuntarily, directly or indirectly, or by transfer of control of any corporation holding such permit or license, to any person except upon application to the Commission and upon finding by the Commission that the public interest, convenience, and necessity will be served thereby.<sup>85</sup>

Thus, under Section 310(d), all licensees must seek and obtain Commission approval before assigning<sup>86</sup> or transferring control of a license or construction permit.<sup>87</sup> This requirement applies to both *de facto* and *de jure* transfers of control.<sup>88</sup> In addition, the Commission's rules prohibit licensees from avoiding their obligations under the Communications Act, the Commission's rules and the terms of their station authorizations.<sup>89</sup> A failure to comply with this requirement may result

<sup>78</sup> Furchtgott-Roth, *supra* note 7, at 14 ("Competition flourishes best when those property rights are clearly defined and enforced. Similarly, licensees will have greater incentive to invest and think creatively about evolutionary spectrum uses if government does not constrain these choices."); *see also* White, *supra* note 40, at 32.

<sup>79</sup> *See* Furchtgott-Roth, *supra* note 7, at 14.

<sup>80</sup> *Id.*

<sup>81</sup> DeVany, *supra* note 19, at 629 ("The auctions surely are a better way to issue licenses than the arbitrary ways of the past, but they have not given us the flexibility and incentives that are the prime advantages of a market over an administered system.")

<sup>82</sup> *See Furchtgott-Roth's Statement to Secondary Markets NPRM*, 15 FCC Rcd. at 24,257-58 (asserting that a secondary market proposal seeks to clarify licensees' rights, but does not go "far enough" in that direction).

<sup>83</sup> *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,186, para. 20.

<sup>84</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,204-05, para. 3.

<sup>85</sup> 47 U.S.C. § 310(d). The Commission's Rules also pro-

hibit the assignment or transfer of a construction permit, license or rights stemming from either, without prior Commission approval. Application for Voluntary Assignment or Transfer of Control, 47 C.F.R. § 73.3540 (2000).

<sup>86</sup> *See* Questions & Answers Regarding Private Wireless Licensees' Obligations Under Section 310(d) of the Communications Act of 1934, *Fact Sheet*, 2000 FCC Lexis 4926, at 4 (2000). "An assignment of authorization is a transaction in which the license is assigned by one entity to another. For example, a transaction in which a private land mobile radio license switches from Company A to Company B would constitute an assignment of license." *Id.*

<sup>87</sup> *Id.* ("A transfer of control is a transaction in which the licensee remains the same, but control of the licensee-entity is transferred from one person or entity or group of persons or entities to another.")

<sup>88</sup> *Loraine Journal Co. v. FCC*, 351 F.2d 824, 828-29 (D.C. Cir. 1965); *In re Application of Town & Country Radio, Inc., Rockford, Ill. for Constr. Permit*, 28 F.C.C. 129,151 (1960) (citing decisions).

<sup>89</sup> General Operating Requirements, 47 C.F.R. § 90.403(a)-(b) (2000) (requiring compliance to the Com-

in forfeitures being assessed by the Commission.<sup>90</sup> In cases where transfer of control has been misrepresented or concealed from the Commission, revocation of the licensee's authorization may be the result.<sup>91</sup> On the other hand, Section 310(d) obligates the Commission to review assignment and transfer of control applications on a case-by-case basis.<sup>92</sup>

For the purposes of fostering secondary markets in spectrum through the proliferation of leasing agreements, it is of primary importance for parties seeking to enter such agreements to understand the term "control," as used in Section 310(d). Parties seeking to enter into leasing agreements must answer the question of how much "control" over the license the original licensee can give to the prospective lessee before the transaction becomes a "transfer of control" under Section 310(d) and requires Commission approval. For guidance, applicants can turn to a series of FCC adjudications in which the agency has set various standards for what constitutes "control" of a license.<sup>93</sup> However, the determination of "control" can still be a difficult for applicants to

make.<sup>94</sup> It can be very time-consuming, expensive and even cost-prohibitive for parties unwilling to risk an incorrect determination or live with an arrangement dictated by what they understand to be the Commission's restrictions on control.<sup>95</sup>

#### B. The *Intermountain Microwave* standard and its chilling effect on spectrum leasing

The Commission has exercised a wide range of discretion in determining and enforcing its standards for what constitutes "control" under Section 310(d).<sup>96</sup> In enacting the Communications Act, Congress declined to define "control" to not inadvertently limit its meaning.<sup>97</sup> This congressional action has enabled the Commission to interpret and apply the term relatively freely.<sup>98</sup> The FCC's discretion in defining "control" is reflected in the variable standards it has for different types of licenses and its ability to interpret those standards liberally.<sup>99</sup> The Commission established its test for who controls a common carrier license when it issued its 1963 *Intermountain Microwave* decision.<sup>100</sup> In *Intermountain Microwave*, the Commission deter-

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munications Act for Private Mobile Radio Services (PMRS)).

<sup>90</sup> 47 U.S.C. § 503(b)(1) (1994) (establishing that forfeitures may be assessed against any person who "willfully or repeatedly" fails to comply substantially with terms of any license, the provisions of the Communications Act or with any rule, regulation, or order issued by the Commission).

<sup>91</sup> See *In re Silver Star Communications-Albany, Inc.*, *Memorandum Opinion and Order*, 6 FCC Rcd. 6905, para. 20 (1991) (citing *In re Silver Star Communications-Albany, Inc.*, 3 FCC Rcd. 6342, 6355 (1988)) (citing Revocation of the License of Blue Ribbon Broadcasting, Inc. (Salem, Va.)), *Decision*, 90 F.C.C.2d 1023 (1982); *In re Application of Stereo Broadcasters, Inc.*, for License Renewal (Garden City, NY), *Decision*, 87 F.C.C.2d 87 (1981).

<sup>92</sup> William C. Beckwith, *Cutting the Cord: Removing the CMRS Spectrum Cap to Promote Wireless Landline Convergence and Wireless Alternatives in the Local Loop*, 7 COMMLAW CONSPECTUS 369, 374 (1999) [hereinafter Beckwith] (citing Comments of the Cellular Telecommunications Industry Association, to the *Notice of Proposed Rulemaking* in WT Dkt No. 98-205, at 23 (Jan. 25, 1999)).

<sup>93</sup> As will be discussed later in this article, there are several standards of control that vary according to the use the spectrum is being put. See *infra* Part III.B.

<sup>94</sup> At a Public Forum on secondary markets held at the Commission on May 31, 2000, former Wireless Telecommunications Bureau Chief Michele Farquhar commented on the general confusion among licensees about what constitutes control and that that confusion stems from the Commission's failure to convey adequately the message to all licensees. See FEDERAL COMMUNICATIONS COMMISSION, FEDERAL COMMUNICATIONS COMMISSION PUBLIC FORUM ON SECONDARY MARKETS IN RADIO SPECTRUM 116, available at <http://www.fcc.gov/realaudio/presentations/2000/053100/welcome.html> (last

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visited Sept. 30, 2001) [hereinafter *Public Forum*].

<sup>95</sup> This situation epitomizes the concept of "regulatory uncertainty." *Furchtgott-Roth's Statement to Secondary Markets NPRM*, 15 FCC Rcd. at 24,258-59.

<sup>96</sup> See *Lorain Journal Co.*, 351 F.2d at 828-29 (stating that § 310(d) "speaks in broad terms in its prohibition of transfers" without prior FCC public interest finding and the "statute is to be implemented in accordance with the agency's interpretation that passage of control need 'not be legal control in a formal sense, but may consist of actual control by virtue of the special circumstances presented.'") (quoting *Town and Country Radio Inc.*, 15 Rad. Reg. (P & F) 1035, 1057 (1960)).

<sup>97</sup> H.R. REP. NO. 73-1850, at 4-5 (1934) (explaining that "control" was not defined because would it would be "difficult to do . . . without limiting the meaning of the term in an unfortunate manner").

<sup>98</sup> See *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 866 (1984) (holding that in the absence of a congressional definition, the courts will defer to agency definitions so long as they are not arbitrary, capricious or manifestly contrary to the statute); see also *Secondary Markets NPRM*, 15 FCC Rcd. at 24,228, para. 71 (citing *In re Application of Stereo Broadcasters, Inc.*, *Memorandum Opinion and Order*, 55 F.C.C.2d 819, 821, para. 7 (1975) [hereinafter *Stereo Broadcasters*] ("[T]he [C]ommission is not bound by any exact formula in its determination of whether control of a . . . licensee has been transferred in violation of Section 310(d).").

<sup>99</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,228, para. 71 ("[T]he Commission has developed different criteria for different sets of licenses when determining whether control has been transferred.").

<sup>100</sup> Applications for Microwave Transfers to Tele-

mined that the ultimate test for control under section 310(d) is whether the licensee retains “exclusive responsibility for the operation and control of the facilities.”<sup>101</sup> In order to make this determination, the Commission laid out the following six criteria that indicate control over a license: (1) unfettered control of the facilities and equipment; (2) control of day-to-day operations; (3) determination and carrying out of policy decisions; (4) oversight of employment, supervision, and dismissal of personnel; (5) responsibility for paying financial obligations; and (6) receipt of profits from the operation of the facilities.<sup>102</sup> In settling on this standard, the FCC found that they reflected the basic and most common incidents of control over a common carrier facility,<sup>103</sup> and, as such, the FCC has maintained them as “useful guidelines.”<sup>104</sup>

For parties attempting to solidify a spectrum lease agreement, however, the *Intermountain Microwave* guidelines have proven to be less than helpful.<sup>105</sup> As technologies evolve and spawn new contractual arrangements to facilitate their use, *Intermountain Microwave*'s control criteria seem more confusing for licensees and prospective lessees, as they must continually apply an old standard to new circumstances.<sup>106</sup> Indeed, until re-

cently, the FCC has not only recognized this regulatory uncertainty, but embraced it in its rulemakings and other proceedings.<sup>107</sup> In a proceeding where the FCC was forced to conduct a second *Intermountain Microwave* determination, after the D.C. Circuit found the initial determination to be “arbitrary and capricious,”<sup>108</sup> the Commission still stressed that “there is no exact formula for determining control” and that determinations must be based on the “totality of the circumstances” in each case.<sup>109</sup>

In addition to regulatory uncertainty, the requirements that the *Intermountain Microwave* guidelines impose on contracting parties often prove too unprofitable, and deals are abandoned or never even begun.<sup>110</sup> While the first criterion of “unfettered control of the facilities and equipment” generally does not impose any difficulty for licensees leasing their spectrum and facilities, the second criterion, “day-to-day control of operations,”<sup>111</sup> is more problematic because lessees generally want the autonomy that control over the daily operations brings.<sup>112</sup> The third criterion of who carries out policy decisions, including filing applications with the FCC, is taken care of in the contract between the parties and generally does not present a problem.<sup>113</sup> However, the final

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prompter Approved with Warning, *Public Notice*, 12 F.C.C.2d 559, 559-60 (1963) [hereinafter *Intermountain Microwave*].

<sup>101</sup> *Id.*

<sup>102</sup> *Id.* at 560.

<sup>103</sup> *Id.*

<sup>104</sup> *In re* Application of Ellis Thompson Corp. for facilities in the Domestic Public Cellular Radio Telecommunications Service on Frequency Block A in Market No. 134, Atlantic City, New Jersey, *Memorandum Opinion and Order and Hearing Designation Order*, 9 FCC Rcd. 7138, 7139, para. 9 (1994) [hereinafter *Ellis Thompson*].

<sup>105</sup> Licensees such as Columbia, PCC, Pacific Bell and NABOB have all indicated that the *Intermountain Microwave* standard is no longer a workable tool in determining whether a licensee has given over control of its licensed facilities to another party. *In re* Implementation of Sections 3(n) and 332 of the Communications Act Regulatory Treatment of Mobile Services, *Fourth Report and Order*, 9 FCC Rcd. 7123, 7127, para. 20 (1994) [hereinafter *Mobile Services Fourth Report & Order*].

<sup>106</sup> Former Commission Wireless Telecommunications Bureau Chief Michele Farquhar cited uncertainty over the *Intermountain Microwave* standard as an obstacle to secondary market agreements for reluctant parties. See *Public Forum*, *supra* note 94, at 106.

<sup>107</sup> The legitimacy of this regulatory uncertainty within control standards may actually have been planted by judicial decisions holding that de facto control is by necessity such a complex concept arising out of many circumstances that it cannot always be divined from verification of nominal owner-

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ship. See generally *Rochester Tele. Corp. v. United States*, 23 F. Supp. 634, 636 (W.D.N.Y. 1938).

<sup>108</sup> *Tele. and Data Sys., Inc. v. FCC*, 19 F.3d 655, 658 (D.C. Cir. 1994) (vacating and remanding Commission application of *Intermountain Microwave* criteria that was found to be so “uneven” as to be “arbitrar[y] and capricio[us].”).

<sup>109</sup> *Ellis Thompson*, 9 FCC Rcd. at 7139, para. 10; see also *Secondary Markets NPRM*, 15 FCC Rcd. at 24,228, para. 71 (citing *Stereo Broadcasters*, 55 F.C.C.2d at 821, para. 7) (“The ascertainment of control in most instances must of necessity transcend formulas, for it involves an issue of fact which must be resolved by the special circumstances presented.”).

<sup>110</sup> See *In re* Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, *Notice of Proposed Rulemaking*, 15 FCC Rcd. 24,203, 24,262 (Separate Statement of Gloria Tristani) (2000) [hereinafter *Tristani's Statement to Secondary Markets NPRM*] (“We are aware that some leasing arrangements are scuttled by regulatory uncertainty and others by the transactions cost of transfer proceedings.”).

<sup>111</sup> The Commission has generally interpreted that the controlling factor in determining that control of the facilities and equipment is “unfettered” is that “access is unimpaired.” *In Re* Applications of Brian L. O’Neill for Transfer of Control (Panama City, Fla.), *Memorandum Opinion and Order and Notice of Apparent Liability*, 6 FCC Rcd. 2572, 2575, para. 28 (1991).

<sup>112</sup> *Public Forum*, *supra* note 94, at 107.

<sup>113</sup> *Id.*

three criteria each contain the same autonomy problems for lessees as the second criterion.<sup>114</sup>

In addition to the *Intermountain Microwave* guidelines, the FCC has established criteria to determine control of other types of wireless licenses, such as broadcast<sup>115</sup> and specialized (private) mobile radio (SMR) service licenses.<sup>116</sup> The FCC established its standards for control of SMR licenses in its 1985 *Motorola* decision.<sup>117</sup> In *Motorola*, the FCC's Private Radio Bureau<sup>118</sup> ruled that private radio licensees could hire entities to manage their systems, but licensees could not relinquish control of their systems under a management or equipment contract. To remain in control, the licensee "must retain bona fide proprietary interests in, and exercise supervisory control over, their systems."<sup>119</sup> The FCC, as in *Intermountain Microwave*, laid out criteria to confirm a licensee's retention of control in order to determine what constitutes a bona fide proprietary interest. The first criterion set out by the FCC requires that financing for the purchase of the equipment be obtained from an entity independent of the equipment vendor system manager.<sup>120</sup> The second criterion is that the equipment vendor manager does not sell equipment to the licensee at a discount for the right to manage the licensee's system.<sup>121</sup> The third and fi-

nal criterion is that the licensee's equipment purchase is indistinguishable "from that of any other SMR licensee that may purchase equipment from a vendor but not employ that vendor to manage the system."<sup>122</sup> *Motorola* also requires that a contract ensuring a licensee's authority to supervise, instruct and terminate a third party manager, supports a finding that a licensee retains control.<sup>123</sup> As in the decisions applying *Intermountain Microwave* control criteria, the FCC in *Motorola* noted that the determination of control ultimately turned on the circumstances of each individual case.<sup>124</sup>

While the general ad hoc approach of the *Intermountain Microwave* and *Motorola* control guidelines may seem conscientious because of its fact-sensitive nature, this approach by the FCC does not provide clear and unmistakable standards that licensees can determine and rely on consistently when making decisions.<sup>125</sup> As noted above, such "regulatory uncertainty" has a distinct "chilling effect" on investment in wireless licenses and secondary market transactions, such as spectrum leases.<sup>126</sup> Parties simply do not feel comfortable entering into arrangements when their rights and obligations are not clear and potential liability is uncertain.<sup>127</sup> Also, parties must work out intricate

<sup>114</sup> Farquhar explained that the oversight of employment, supervision and dismissal of personnel responsibility for paying financial obligations and receipt of profits from the operation of the facilities all present problems to contracting parties. *Id.* at 107.

<sup>115</sup> Although excluded from the secondary markets rulemaking, it is important to note the broadcast standards for license control. Generally, the Commission considers control over station finances, personnel matters, and programming in determining whether there has been a premature or unauthorized transfer of control in contravention of § 310(d). See *In Re Applications of Southwest Texas Public Broadcasting Council For Renewal of Licenses for Noncommercial Educational Television Stations (San Antonio and Austin, Tex.)*, *Decision*, 85 F.C.C.2d 713, 715 (1981).

<sup>116</sup> A Specialized Mobile Radio Service (SMRS) "consists of one or more base station transmitters, one or more antennas, and end user radio equipment that usually consists of a mobile radio unit either provided by the end user or obtained from the SMR operator for a fee." WIRELESS TELECOMMUNICATIONS BUREAU, FEDERAL COMMUNICATIONS COMMISSION, SPECIALIZED MOBILE RADIO SERVICE, at <http://www.fcc.gov/wtb/smrs/> (last modified Apr. 26, 1999).

<sup>117</sup> *In re Applications of Motorola, Inc. for 800 MHz Specialized Mobile Radio Trunked Systems*, *Order*, File Nos. 507505 et al., para. 14 (rel. Jul. 30, 1985) (announced by FCC News Release No. 6440 (Aug. 15, 1985)) (test of control for SMR services); see also Private Radio Bureau Reminds Licensees of Guidelines Concerning Operation of SMR Stations Under Management Contracts, *Public Notice*, 64 Rad. Reg. 2d

(P & F) 840 (1988) [hereinafter *Motorola*] (restating control standards).

<sup>118</sup> The Public Safety and Private Wireless Division of the Wireless Telecommunications Bureau have since subsumed the Private Radio Bureau and its duties. WIRELESS TELECOMMUNICATIONS BUREAU, FEDERAL COMMUNICATIONS COMMISSION, available at <http://www.fcc.gov/wtb/organization/#private> (last modified Jan. 10, 2001).

<sup>119</sup> *Motorola*, 64 Rad. Reg. 2d at 840.

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> *Id.*

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

<sup>125</sup> The broadcast standard is also applied by the FCC on a case-by-case basis, leaving broadcast licensees equally confused as wireless licensees. See, e.g., Michael E. Lewyn, *When is Time Brokerage A Transfer of Control? The FCC's Regulation of Local Marketing Agreements and the Need for Rulemaking*, 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1 (1995) (exploring practitioners difficulty in navigating the FCC's control standards for broadcasting licenses).

<sup>126</sup> See *supra* notes 74-75.

<sup>127</sup> At the Public Forum, the panelists noted attorneys' reluctance to issue legal opinions that leasing agreements comply with Commission rules or the Communications Act serves as a disincentive to entering into secondary market transactions. See *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,184, para. 15.

contracts to ensure that they do not run afoul of *Intermountain Microwave* guidelines and section 310(d) and increase transaction costs while diminishing potential profits.<sup>128</sup> As a result, these disincentives keep spectrum allocations, which no longer represent the most efficient use of the spectrum, from being corrected via secondary market transactions.<sup>129</sup> Also, these disincentives are widely recognized as the primary obstacle to spectrum leasing and, in turn, secondary markets.<sup>130</sup> Moreover, it is these disincentives that the FCC's secondary markets in spectrum rulemaking is aimed at correcting.<sup>131</sup>

#### IV. PROMOTING THE EFFICIENT USE OF SPECTRUM BY ENCOURAGING THE DEVELOPMENT OF SECONDARY MARKETS: THE FCC'S NOTICE OF PROPOSED RULEMAKING

##### A. Goal of the Rulemaking and Guiding Principles

The Commission initiated the secondary markets initiative with the primary goal of streamlining or eliminating rules and regulations that currently hinder the free flow of market forces in the wireless industry.<sup>132</sup> In taking this step, the Commission recognized the growing demand for spec-

trum being fueled by the deployment of evolving wireless technologies and secondary markets' potential to free up that desired spectrum from intentional and unintentional regulatory restraints.<sup>133</sup> In the *Notice of Proposed Rulemaking* (the "*Secondary Markets NPRM*"), this effort to revise Commission rules focuses on the ability of licensees to lease their spectrum to third parties without prior Commission approval and minimal Commission interference.<sup>134</sup> The *Secondary Markets NPRM* concludes that expanded spectrum leasing would serve the public interest, convenience and necessity by facilitating the rapid and efficient allocation of spectrum that would, in turn, make more of the scarce resource available for emerging spectrum hungry services.<sup>135</sup>

In the *Policy Statement* (the "*Secondary Markets Policy Statement*") accompanying the *Secondary Markets NPRM*, the Commission laid out the following general principles to guide the initiative with respect to licensees' and spectrum users' rights:

- Licensees should generally have clearly defined usage rights to their spectrum, including frequency bands, service areas, and license terms of sufficient length, with reasonable renewal expectancy, to encourage investment.
- Licenses and spectrum usage rights should be easily transferable for lease or sale, divisible, or aggregatable.
- Licensee/users should have flexibility in determining the services to be provided and the technology

<sup>128</sup> Robert Shriver, President & CEO, Securicor Wireless Holdings, Inc. commented at the Public Forum that in order to comply with *Intermountain Microwave*, the leasing agreements his corporation enters into are often "time and resource intensive, cumbersome, costly and difficult to administer." *Public Forum*, *supra* note 94, at 112.

<sup>129</sup> See Robinson, *supra* note 10, at 619–20 (stating that secondary markets are necessary to ensure the continued efficiency of spectrum allocations, post-auction, in light of changing economic and technological circumstances).

<sup>130</sup> The Commission recognizes multiple licensee concerns unrelated to the *Intermountain Microwave* control standards that may explain why many licensees are unwilling to currently trade their rights to unused spectrum. They include: (1) the concern that more spectrum will be needed in the future; (2) speculation on future increases in the value of spectrum; or (3) a belief that partition or disaggregation would diminish the license's value. However, the Commission proposes spectrum leasing as a mechanism to address these concerns. *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,184–85, paras. 15–16.

<sup>131</sup> *Id.* at 24,185, para. 17.

<sup>132</sup> *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,186, para. 19 (describing the relaxing of rules and policies as a "major focus of [the FCC's] secondary markets efforts."). The *Secondary Markets NPRM*'s other goals include: (1) "encourage advances in equipment [such as software-defined radio (SDR)] that will facilitate use of available spectrum for a

broad range of services", and (2) "encourage the development of mechanisms, such as informational sources, that help enable markets to work better." See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,205, para. 4 (citing *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,185, para. 17).

<sup>133</sup> *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,180, paras. 7–8; see also William Kennard, *Public Forum*, *supra* note 94, at 5 ("[The wireless Internet] revolution is just beginning to hit the United States. And it is going to hit us fast. And we've got to be prepared for it.").

<sup>134</sup> Notice for Proposed Rulemakings are procedural mechanisms of administrative law that inform the public of proposals to change agency rules and request written comments within a designated timeframe from interested parties. The agency, the FCC in this case, adopts, amends or affirms its rules and regulations based on the comments its receives and its own research. Rule makings are authorized under the Administrative Procedure Act, 5 U.S.C. § 553 (1994). It should be noted that the window for initial comments to the *NPRM* closed on Feb. 9, 2001, and the window for reply comments closed Mar. 9, 2001. See *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, 65 Fed. Reg. 81,475 (Dec. 26, 2000) (proposed Nov. 9, 2000) (noting comment and reply comments dates).

<sup>135</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,210, para. 18.

used for operation consistent with the other policies and rules governing the service.

- Licensees/users have a fundamental obligation to protect against and the right to be protected from interference to the extent provided in the Commission's rules.<sup>136</sup>

To a certain extent, these principles reflect the challenge that the spectrum leasing proposal poses to the Commission. On the one hand, the Commission must tailor its rules to provide parties with more clearly defined rights to ensure that there are incentives for entry into spectrum leases. However, at the same time, the Commission must act within the boundaries of Section 310(d)'s control requirement by engaging in a confusing legal fiction—licensees retain control in name, but not in deed. The *Secondary Markets Policy Statement* aptly illustrate this conflict by noting that while some advocates have rightly pushed for a more “property-right[s]” spectrum policy,<sup>137</sup> the Communications Act explicitly recognizes that the use of spectrum is limited and “ultimately belongs to the public and not to individual licensees.”<sup>138</sup> In addition, the *Secondary Markets Policy Statement* reiterates the Commission's statutory authority and ultimate administrative control over the spectrum.<sup>139</sup> It is the need for licensee control that the Commission must meet while developing incentives that may directly challenge that control.<sup>140</sup> Ultimately, the Commission's spectrum

leasing proposal represents its attempt to handle this conflict while developing the most rational rules possible.

## B. Spectrum Leasing Proposal

The *Secondary Markets NPRM* only applied the leasing proposal to certain Wireless Radio Services licenses<sup>141</sup> with “‘exclusive’” authority<sup>142</sup> to use assigned spectrum in their service areas.<sup>143</sup> The *Secondary Markets NPRM* did not apply the leasing proposal to satellite licenses or to licenses of shared spectrum, but it did invite comment as to whether they should be added.<sup>144</sup> In addition, the *NPRM* did not include broadcast radio or television licenses, which are authorized under Parts 73 and 74 of the Commission's rules. The Commission reasons that these mass media licensees raise “unique and substantial public interest considerations” that preclude them from this rulemaking.<sup>145</sup> Those “considerations” revolve mainly around programming requirements and First Amendment issues that the FCC sees as potentially complicating an already difficult endeavor.<sup>146</sup> While the Commission did not invite comment on whether such mass media broadcast licenses should be added, it did suggest that the leasing of such licenses may arise in the future.<sup>147</sup>

<sup>136</sup> *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,186, para. 20.

<sup>137</sup> *Id.* at 24,187, para. 21 n.29 (citing the Secondary Markets Public Forum testimony of former FCC Commissioner Furchtgott-Roth, Tom Hazlett, Resident Scholar, American Enterprise Institute and Peter Cramton, Spectrum Exchange and Professor of Economics, University of Maryland).

<sup>138</sup> *Id.* at 24,187, para. 21.

<sup>139</sup> *Id.* at 24,188, para. 24.

<sup>140</sup> *Id.* (stating that this process is a balancing of [the Commission's] duty to exercise its authority to protect the public interest against the ability of licensees to freely trade their spectrum usage rights).

<sup>141</sup> The Wireless Radio Services addressed by the *Secondary Markets NPRM*'s leasing proposal include the following: Personal Communications Service (PCS), Cellular Radiotelephone Service (Cellular), Public Mobile Services other than cellular; Specialized Mobile Radio Service (SMRS); Wireless Communications Service (WCS), Local Multipoint Distribution Service (LMDS), Fixed Microwave Service, 700 MHz Service; 700 MHz Guard Band Service; 39 GHz Service, 24 GHz Service, 3650–3700 MHz Service, 218–219 MHz Service, and Private Land Mobile Radio Services (PLMRS). These licenses are set forth in § 1.907 of the Commission's rules. *Secondary Markets NPRM*, 15 FCC Rcd. at 24,213, para. 24 n.40.

<sup>142</sup> *Id.* at 24,213, para. 24 n.41 (defining “exclusive” authority as meaning the Commission's rules provide for “mutual exclusivity in the event of competing applications in the

same service” (i.e., no shared use)).

<sup>143</sup> *Id.* at 24,213, para. 24 (focusing on exclusive licenses in the *NPRM* because of “significant interest in leasing in this context, and the implementation concerns are less complicated than in some other services.”).

<sup>144</sup> *Id.* at 24,225–27, paras. 65–68 (explaining that potential for interference among “share[d] use” licenses complicates leasing analysis and questioning whether leasing would have any “practical applicability to shared spectrum”); *Id.* at 24,226, para. 66 (noting already existent flexibility in rules in satellite transponder leasing and inviting comments on possible rule changes to further promote secondary markets).

<sup>145</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,227, para. 69 n.93; *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,182, para. 10 n.18.

<sup>146</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,227, para. 69 (noting the “unique obligations placed on broadcasters and the public interest considerations applicable in the spectrum assignment context”). See generally Hazlett, *supra* note 48 (explaining the government's regulation of spectrum as part of an effort to control broadcast content and exploring First Amendment implications of this regulatory scheme).

<sup>147</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,227, para. 69 (excluding comments on mass media services and secondary markets in the present rulemaking, but inviting comment on whether the Commission should address the issues in any future rulemakings).

1. *Licensee and Lessee Rights, Responsibilities and Compliance with Commission Rules*

a. *Overall Responsibility*

After setting the parameters of the leasing proposal, the Commission addressed the very significant question of who should be held responsible for ensuring lessees' compliance with the Communications Act and the Commission's rules. The Commission responded by proposing that spectrum licensees remain directly responsible for ensuring lessees' compliance with the Communications Act and the Commission's various rules.<sup>148</sup> In cases where a licensee finds that a lessee has violated "the parameters of the licensee's authorization," the Commission proposed that the licensee be subject to license revocation or forfeitures.<sup>149</sup> The Commission suggested mechanisms such as "due diligence" inquiries to certify lessee compliance and requiring that lease agreements contain basic contractual definitions of each party's rights and responsibilities with respect to Commission rules to foster enforcement more specifically under this leasing regime.<sup>150</sup>

Significantly, the Commission has taken a very similar approach in another proceeding authorizing a category of commercial licensees to lease spectrum without prior Commission approval. In its *700 MHz Second Report and Order*, the Commis-

sion gave new licensees, known as guard band managers, the "full authority and the duty to take whatever actions are necessary to ensure third-party compliance with the [Communications] Act and [Commission] rules."<sup>151</sup> This grant of authority and responsibility mirrors the language the Commission used in the current proceeding.<sup>152</sup> This is significant because, as discussed below, the Commission based its finding in the guard band manager proceeding on a determination that guard band managers retain *de facto* control of the spectrum they lease.<sup>153</sup> In addition, the Commission also found that it would exercise its regulatory authority over lessees through the guard band managers and their nominal control over the leased spectrum.<sup>154</sup> As a result, the Commission's use of the guard band manager responsibility standards and accompanying enforcement mechanisms indicates its willingness to engage in the same legal fiction of equating responsibility with control in order to provide regulatory oversight required by Section 310(d).<sup>155</sup>

While these mechanisms and overall vesting of responsibility in the licensee help to satisfy the requirements of Section 310(d), this scheme is generally contrary to the actual relationship between spectrum licensee and lessee; therefore, they may serve as a disincentive to the overall leasing of spectrum.<sup>156</sup> Licensees will likely be deterred

<sup>148</sup> *Id.* at 24,214, paras. 27, 29 ("[I]n the event of licensee or lessee non-compliance, the Commission would hold the licensee directly responsible and may take any action against the licensee provided for under [its] rules.").

<sup>149</sup> *Id.* at 24,216, para. 32.

<sup>150</sup> The Commission has also already used this second contractual mechanism in its rules regarding guard band managers, discussed immediately below. *Id.* at 24,215, para. 30 n.47.

<sup>151</sup> *In re Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, Second Report and Order*, 15 FCC Rcd. 5299, 5321, para. 46 (2000) [hereinafter *700 MHz Second Report and Order*].

<sup>152</sup> Any enforcement powers given to licensees must "be designed to ensure that the licensee [has] the full authority and duty to take whatever actions necessary to ensure the spectrum lessee's compliance." *Secondary Markets NPRM*, 15 FCC Rcd. at 24,214, para. 28. The FCC touts guard band managers as facilitators of secondary markets and as a "next generation' frequency coordinator," akin to the spectrum clearinghouses of the future. *700 MHz Second Report and Order*, 15 FCC Rcd. at 5321, para. 45.

<sup>153</sup> *Id.* at 5321, para. 46; See Comments of Verizon Wireless to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 7-8 (Feb. 9, 2001) [hereinafter *Verizon Comments to Secondary Markets NPRM*] (describing guard band managers and reiterating their "control" standards).

<sup>154</sup> *700 MHz Second Report and Order*, 15 FCC Rcd. at 5321, para. 47 (holding guard band managers directly responsible for their lessees' compliance with Communications Act and Commission rules and enforcing the law by revoking licenses of noncomplying guard band managers or guard band manager lessees).

<sup>155</sup> See *Public Forum*, *supra* note 94, at 101 (noting how Farquhar cited the guard band manager initiative as a source of practical experience as well as a model for secondary market initiative).

<sup>156</sup> See Comments of the Rural Telecommunications Group to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 12-13, 17, 18 (Feb. 9, 2001) [hereinafter *RTG Comments to Secondary Markets NPRM*] (noting that lessees, not licensees/lessors, maintain "operational control" of the spectrum and the Commission should adapt its rules to this "business reality") (stating that holding licensees completely responsible for lessee's actions is "out of step with commercial practice" and would "snuff out all incentives that a licensee may have to lease its unused spectrum usage rights"); Comments of Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 9 (Feb. 9, 2001) [hereinafter *CTIA Comments to Secondary Markets NPRM*] (noting that the Commission's proposed enforcement standards under the leasing proposal are "not feasible and would discourage parties from entering into spectrum leases").



from entering into lease agreements if they are required to enforce Commission rules, conduct burdensome “due diligence” examinations and negotiate additional compliance guarantees with potential lessees.<sup>157</sup> Even more daunting for licensees than these potential distractions, is the possible imposition of forfeitures or license revocation for the independent actions of a lessee that a licensee had no knowledge or control over.<sup>158</sup> Navigating this course of potential liability could result in extremely high transaction costs, which mirror costs under the current leasing regime that too often preclude spectrum leasing.<sup>159</sup> Together, these possible outgrowths of the Commission’s proposed leasing scheme actually combine to form a powerful obstacle to licensee involvement in secondary spectrum market transactions.

#### b. *Technical Rules*

Not all of the Commission’s spectrum leasing proposal placed the regulatory responsibility on the licensee. The Commission tentatively concluded that spectrum lessees are not relieved of their obligations to comply with the Communications Act and Commission rules.<sup>160</sup> In order to en-

force this distribution of responsibility, the proposal extended Commission jurisdiction over licensees to lessees and sublessees.<sup>161</sup> Regarding the Commission’s technical interference and frequency coordination rules, the Commission tentatively concluded that lessees and sublessees must comply with all technical rules.<sup>162</sup> While the proposal sought comment on how exactly licensees may ensure lessee compliance and the appropriate level of licensee oversight,<sup>163</sup> it also requested comment on the “appropriate role” of lessees and sublessees in preventing interference and ensuring proper frequency coordination.<sup>164</sup> These questions were also addressed toward technically specific services, such as site-by-site<sup>165</sup> and point-to-point licenses.<sup>166</sup>

Despite possibly trying to shift some of the responsibility to both parties for violations of the Commission’s technical rules, in order minimize the above mentioned disincentives for spectrum leasing, this approach perpetuates confusion and only compounds existing disincentives to spectrum leasing. Parties may be forced to continue the expensive and time-consuming process of determining who is ultimately responsible for compliance with technical rules and any remediation

<sup>157</sup> See *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 13 (characterizing the Commission’s proposal that licensees guarantee lessee compliance as placing a “burden on licensees [that] will fundamentally undermine their willingness to lease or rent their excess spectrum”); *Securicor Comments to Secondary Markets NPRM*, *supra* note 14, at 10 (stating that it would sometimes be more “appropriate or expedient for the Commission to act directly with the spectrum [lessee].”).

<sup>158</sup> See *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 13 (“Under the Commission’s proposal, a licensee will either need to hire staff to supervise its independent lessees or tolerate the risk of surprise forfeitures and revocations unrelated to the licensee’s ‘willful’ acts.”).

<sup>159</sup> See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 9 (noting that mandating due diligence or verification could result in licensees indemnifying all lessees for compliance with Commission rules).

<sup>160</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,215, para. 31 (“[W]e tentatively conclude that this action would not relieve spectrum lessees of their individual responsibilities to comply with the Act, our policies, and our rules.”).

<sup>161</sup> *Id.* at 24,215–16, paras. 31–32.

<sup>162</sup> *Id.* at 24,218, para. 40.

<sup>163</sup> *Id.* at 24,217–18, paras. 37, 40 (having sought comment on what level of direct licensee oversight of lessee compliance is appropriate, the extent of licensee responsibility over sublessees, and the appropriate role of the FCC in interference-related issues) (concluding that, where required, licensees must apply for and receive FCC approval of station modifications by lessees and seeking comment on the administrative burden this requirement places on licensees).

<sup>164</sup> *Id.* (having sought comment as to what extent the lessee, rather than the licensee, should be permitted to resolve interference issues and enter into interference-preventing arrangements (for example, service extensions or short-spacing agreements with other licensees)) (concluding lessees and sublessees should be responsible for complying with technical rules and requesting comment on the “costs and benefits . . . associated with allowing lessees and sublessees to be responsible for routine, day-to-day interactions with the Commission.”).

<sup>165</sup> *Id.* at 24,217–18, para. 38 (sought comment on how site-by-site licensees can comply with interference and technical rules under leasing agreements and how rules can be altered to allow multiple site-by-site licensees to pool their systems, via leasing arrangements, to create larger wide-area systems); *Id.* at 24,217, para. 35 n.54 (explaining that holdover licensees whose licenses covered a specific site (site-by-site licensee) are precluded from expanding beyond their sites into larger geographic areas that the FCC has subsequently licensed as part of its overall shift away from site-by-site licensing toward geographic area licensing).

<sup>166</sup> *Id.* at 24,218, para. 39 (having sought comment on leasing of spectrum for point-to-point signaling licensed under Part 101 of the FCC’s rules for private, internal communications) (noting that excess spectrum “cannot be divided and leased [to common carriers] without breaking the end-to-end link”); HARRY NEWTON, *NEWTON’S TELECOM DICTIONARY* 689 (16th ed. 2000) (defining point-to-point signaling as a “signaling method where signals must be completely received by an intermediate station before the station can set up a call connection”).

efforts that may be necessary.<sup>167</sup> In light of this disincentive, a more beneficial and logical approach would be to enforce technical rules directly against the party actually using the spectrum (generally the lessee).<sup>168</sup> As a result, parties could reallocate compliance responsibility and reapportion liability through flexible contracts enabled by their clear understanding of their respective rights.<sup>169</sup> Establishing a scheme of dual responsibility serves only to negate past efforts at clarifying spectrum users' rights.<sup>170</sup>

### c. Service Rules

The Commission's proposal's approach to non-technical service rules also illustrates the conflict between the statutory requirement of licensee control and the Commission policy goal of free alienation of spectrum users' rights. However, the proposal is more flexible on this issue and may indicate the Commission's willingness to forgo control concerns in favor of promoting leasing agreements. Specifically, the Commission laid out a "continuum of possible approaches" that seeks to strike the proper balance between control and incentives, as it reconciles spectrum leasing with service rules that apply to Wireless Radio Service licensees affected by the rulemaking.<sup>171</sup> At one end of the continuum, the Commission proposed making all service rules applicable to lessees and

licensees.<sup>172</sup> At the other end, it proposed establishing a different set of service rules for lessees than licensees.<sup>173</sup> Recognizing that both of these approaches may pose obstacles to varying parties, the Commission invited comment on how the service rules could be redrawn and applied.<sup>174</sup> In particular, the proposal focused on several non-technical service rules that could have a substantial impact on the development of secondary spectrum markets.<sup>175</sup>

The first of these potentially problematic rules are the Commission's eligibility and use restrictions. Under the Communications Act and Commission rules, certain parties are determined eligible to hold licenses,<sup>176</sup> while some licensees are restricted in the manner in which they may use their spectrum.<sup>177</sup> These restrictions pose an obstacle to licensees who are barred from leasing to other parties who may not conform to the restrictions.<sup>178</sup> In keeping with its continuum approach, the Commission sought comment on whether to apply the use restrictions to lessees as it did to licensees or some variation on the rules should exist for lessees.<sup>179</sup> Maintaining these service rules would be contrary to the Commission's stated goal of fostering a more flexible, and, in turn, more efficient use of the spectrum. Parties cannot put the commercially exploitable spectrum to its highest valued use when it is blocked off and limited to only a certain use by a regulatory body.<sup>180</sup>

<sup>167</sup> See *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 25 ("Requiring licensee involvement at this level of detail will create . . . confusion and delay in the daily resolution of [interference] matters; and add significant cost to the [remediation] process.").

<sup>168</sup> In its comments, RTG cites the enforcement of tower lighting, painting and height restrictions against non-licensee radio tower owners as an example of a compliance approach that does not rely on enforcement against radio licensees and also lightens the public's administrative responsibilities to the Commission. *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 19; see also *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 8–11. The Commission could enforce such compliance pursuant to its authority under § 2(a) of the Communications Act, which makes the Communications Act applicable to "all interstate and foreign communication by . . . radio . . . and to all persons engaged within the United States in such communication." 47 U.S.C. § 152(a) (1994).

<sup>169</sup> See *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 25–26; *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 9 (supporting freedom of parties to enter into compliance agreements that may reallocate liability or provide indemnification).

<sup>170</sup> Allowing parties to freely negotiate and contract away or enter into compliance responsibility would represent one of the basic property rights—the right to alienate property.

See *supra* note 73.

<sup>171</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,219, para. 43.

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> *Id.* (seeking to develop a record to guide the Commission in its judgment).

<sup>175</sup> *Id.* at 24,218–19, paras. 41–42.

<sup>176</sup> Some of the more significant eligibility restrictions are the foreign ownership restrictions that prohibit foreign interests from controlling licenses to varying degrees. See 47 U.S.C. § 310(a)–(b) (1994 & Supp. IV 1998).

<sup>177</sup> A prime example of a use restriction is the FCC rule limiting certain Private Land Mobile Radio Services (PLMRS) licenses to public safety and non-communications business uses. See 47 C.F.R. § 90.35 (2000).

<sup>178</sup> See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,220–21, paras. 46–47 (explaining that leasing would be restricted only to lessees that would themselves qualify for a license under the rules if the use restrictions were expanded to lessees as currently applied to licensees).

<sup>179</sup> *Id.* (laying out proposals).

<sup>180</sup> See Furchtgott-Roth, *supra* note 7, at 14 ("The Commission should never dictate a single business model or a single technology. By locking in one model, such designations inevitably result in the loss of available spectrum for evolving technologies.").

Arguments asserting that the government has a duty to impose restrictions blocking off spectrum for public safety and national defense purposes are relatively reasonable, even after a more accurate picture is painted of the scarcity doctrine, because the government presumably knows the needs of its own spectrum users better than anyone else.<sup>181</sup> However, the government's credibility is severely limited when extending use restrictions on spectrum to certain commercial applications because the Commission can never hope to be as responsive to the demands of the market as those players comprising the market itself.<sup>182</sup> As a result, restrictions may only be appropriate in the narrowest of instances where the service is geared toward public safety or national defense.<sup>183</sup>

The next set of service rules deal with a party's ability to acquire a license in a given market based on the amount of spectrum or control of spectrum that can be attributed to that party in the same market.<sup>184</sup> One such attribution rule of particular significance is the CMRS spectrum aggregation limit, also known as the CMRS spectrum cap. Under the CMRS spectrum cap rule, the amount of broadband CMRS spectrum that an entity can hold within a particular geographic mar-

ket is limited to 45 MHz of spectrum or 55 MHz in rural markets.<sup>185</sup> The purpose of the rule is to prevent unfair and anti-competitive market concentration of spectrum.<sup>186</sup> As discussed below, the CMRS spectrum cap is closely intertwined with the transfer of control issue.<sup>187</sup> The question the CMRS spectrum cap poses for secondary markets is whether leased spectrum should be attributable to the licensee, lessee or both.<sup>188</sup>

The *Secondary Markets NPRM* sought comment on each of these approaches and how each would effect CMRS market concentration and the development of spectrum leasing transactions.<sup>189</sup> Under a strict standard of *de facto* control, leased spectrum would still be attributable to the licensee even though primarily used by the lessee.<sup>190</sup> This occurrence would present one of the strongest disincentives for licensees to lease their excess spectral capacity, as they would be unable to use spectrum still being attributed to them.<sup>191</sup> Alternatively, lessees would be deterred if leased spectrum were applied to them because they would see their opportunities limited by a regulation supposedly aimed at enhancing their market participation.<sup>192</sup> Short of eliminating the CMRS spectrum cap, the next best alternative is to continue

<sup>181</sup> See White, *supra* note 40, at 31 (positing that, while even government agencies should be forced to bid on spectrum in the open market, these agencies are well positioned to seek out efficient uses of the spectrum given their constituents' ability to voice the public's preferences).

<sup>182</sup> Use restrictions are the classic example of what former Commissioner Furchtgott-Roth describes as the government skewing the spectrum market by assuming the role of a market participant that exercises inappropriate market power by blocking entrance into certain areas. *Furchtgott-Roth's Statement to Secondary Markets NPRM*, 15 FCC Rcd. at 24,259-60.

<sup>183</sup> Requiring both licensees and lessees to conform to foreign ownership rules would be in keeping with the recognition of the government's limited, but appropriate role in the spectrum market described here.

<sup>184</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,221, para. 48 (noting use of attribution rules to determine eligibility for auction bidding credits and the CMRS spectrum cap).

<sup>185</sup> 47 C.F.R. § 20.6 (2000)

No licensee in the broadband PCS, cellular, or SMR services (including all parties under common control) regulated as CMRS . . . shall have an attributable interest in a total of more than 45 MHz of licensed broadband PCS, cellular and SMR spectrum regulated as CMRS with significant overlap in any geographic area, except that in Rural Service Areas (RSAs), . . . no licensee shall have an attributable interest in a total of more than 55 MHz of licensed broadband PCS, cellular, and SMR spectrum regulated as CMRS with significant overlap in any RSA.

*Id.* at § 20.6.

<sup>186</sup> See *In re 2000 Biennial Regulatory Review Spectrum*

Aggregation Limits for Commercial Mobile Radio Services, *Notice of Proposed Rule Making*, in WT Dkt. No. 01-14, FCC 01-28, para. 1 (Jan. 23, 2001), available at <http://www.fcc.gov/Bureaus/Wireless/Notices/2001/fcc01028.txt> [hereinafter *Spectrum Cap NPRM*] (finding spectrum limits "necessary to safeguard competition in CMRS markets.").

<sup>187</sup> See discussion *infra* Part IV.B.2.

<sup>188</sup> See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,221-22, para. 49.

<sup>189</sup> *Id.* (continuing to advance a continuum of possible approaches for comment).

<sup>190</sup> In its comments to the *Secondary Markets NPRM*, AT&T Wireless recognized that, under the Commission's leasing proposal, attribution of spectrum for the purposes of the CMRS spectrum cap should "follow the entity that is responsible for control of the license." Comments of AT&T Wireless Services, Inc. to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 5-6 (Feb. 9, 2001) [hereinafter *AT&T Wireless Comments to Secondary Markets NPRM*] (stating that it would sometimes be more appropriate or expedient for the spectrum lessee to interact directly with the Commission).

<sup>191</sup> See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 8 ("[I]t makes no sense to attribute spectrum, for purposes of the [CMRS] spectrum cap, to parties that lack the ability to use such spectrum to exercise market power . . . it reduces incentives for licensees to lease their unused spectrum.").

<sup>192</sup> See Comments of Cingular Wireless LLC to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 5 (Feb. 9, 2001) [hereinafter *Cingular Comments to Secondary Markets NPRM*] ("Excluding spectrum used by lessees from the

applying the CMRS spectrum cap only to the licensees it was intended to restrain; however, it should allow them to exceed the CMRS spectrum cap when a long-term lease commits excess spectrum.<sup>193</sup>

Closely related to the CMRS spectrum cap in its reliance on attribution principles, the Commission's unjust enrichment rules also present a challenge to the development of secondary markets. Under Commission rules, bidding credits for small businesses are sometimes awarded in particular auction proceedings.<sup>194</sup> Installment payment plans also have been made available to winning applicants in selected auctions.<sup>195</sup> Under the current unjust enrichment rules, a licensee that received bidding credits or benefited from installment payments and leases its spectrum to a party not eligible for those same benefits must repay the government the profit realized by exploiting the government's largess.<sup>196</sup> The Commission asked for comment on whether the rule should be maintained, altered or eliminated.<sup>197</sup> For proposals to alter or eliminate the rule, the Commission sought comment on what mechanisms could replace the existing system.<sup>198</sup>

The final set of service rules that would impact significantly any spectrum leasing proposal is the Commission's construction and service requirements, or "build-out" requirements. Under authority granted in the Communications Act, the Commission has adopted rules that require licensees to construct, or build-out, its facilities to sufficiently serve a geographic area or population within a certain period of time.<sup>199</sup> The Commission proposed applying the build-out require-

ments of spectrum lessees to count toward the requirements expected of licensees under the build-out rules.<sup>200</sup> This would certainly benefit licensees required to meet specific build-out goals, and thus, serve to promote spectrum leasing.<sup>201</sup> However, the contradiction presented by the possible attribution of leased spectrum to lessees for CMRS spectrum cap purposes would represent a clear asymmetry in policies.<sup>202</sup> The Commission sought comment on the proposal, as well as alternative proposals that may be equally efficient.

## 2. *Transfer of Control Issues*

### a. *The Commission's New Standard for Control: No Pre-Approval Necessary*

Although lessees may operate the transmission equipment on the spectrum, by effectively holding spectrum licensees fully responsible for compliance with Commission rules, the Commission's leasing proposal created the legal fiction that the licensee maintains *de facto* control over the leased spectrum. The Commission uses this fiction to conclude that allowing licenses to lease spectrum in accordance with the leasing proposal and without prior Commission approval would not violate Section 310(d) because it does not constitute a *de facto* transfer of control of the license or facilities.<sup>203</sup> As a result, the Commission tentatively concluded that the strict six-prong *Intermountain Microwave* standard is no longer appropriate for determining whether a lease or other alienation of spectrum users' rights constitutes an unauthorized *de facto* transfer of control.<sup>204</sup> According to

[CMRS spectrum] cap would foster more of an open entry environment in numerous markets and introduce additional competitors.").

<sup>193</sup> As discussed later in this comment, as well as in most of the comments to the *Secondary Markets NPRM*, the CMRS spectrum cap is no longer necessary in today's competitive wireless marketplace and should be eliminated. See discussion *infra* Part IV.B.2.

<sup>194</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,222, para. 52.

<sup>195</sup> *Id.*

<sup>196</sup> *Id.* at 24,222-23, para. 53 (citing 47 C.F.R. § 1.2111 (d) (2000)).

<sup>197</sup> *Id.* at 24,223, para. 53.

<sup>198</sup> *Id.*

<sup>199</sup> 47 U.S.C. § 303(b), (h) (granting the Commission the authority to impose build-out requirements); see, e.g., 47 C.F.R. §§ 90.665, 90.685 (2000).

<sup>200</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,222, para. 50.

<sup>201</sup> See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 4; *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 28; *Securicor Wireless Comments to Secondary Markets NPRM*, *supra* note 14, at 13; Comments of Cook Inlet Region, Inc. to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 10 (Feb. 9, 2001) [hereinafter *Cook Inlet Comments to Secondary Markets NPRM*].

<sup>202</sup> It is the stated goal of Congress to move away from asymmetrical regulation. See discussion *infra* note 280.

<sup>203</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,232, para. 79.

<sup>204</sup> The Commission concluded that the *Intermountain Microwave* standard is no longer appropriate or viable as a regulatory tool in today's wireless marketplace where market forces and regulatory flexibility have been infused through such policies as spectrum auctioning and the assignment of licenses in blocks of spectrum over geographic areas. *Id.* at 24,230-31, paras. 74-76. Commentators to the proceeding overwhelmingly concurred with this conclusion.

the Commission, the continued use of the *Intermountain Microwave* standard would impede spectrum leasing because it too narrowly focuses on the operation of the station then to whether the license is being efficiently used and in sync with Commission policies and rules.<sup>205</sup> The Commission tentatively concluded that a new standard is necessary as an alternative to the *Intermountain Microwave* standard.<sup>206</sup>

The Commission's proposed new standard is based on the fiction of licensee control employed to circumvent Section 310(d), and therefore, it is more capable of promoting the policy goal of secondary markets. Specifically, the proposed standard would require a licensee entering into a leasing agreement to:

- (1) retain full responsibility for compliance with the [Communications] Act and [Commission] rules with regard to any use of licensed spectrum by any lessee or sublessee;
- (2) certify that each spectrum lessee (or sublessee) meets all applicable eligibility requirements and complies with all applicable technical and service rules;
- (3) retain full authority to take all actions necessary in the event of noncompliance, including the right to suspend or terminate the lessee's operations if such operations do not comply with the [Communications] Act or Commissions rules.<sup>207</sup>

This new standard of control places the regulatory burden on the licensee and imposes strict requirements on contracting parties.<sup>208</sup> Such an approach creates a clear unwillingness among licensees to enter into leasing agreements.<sup>209</sup>

<sup>205</sup> The Commission also noted that the *Intermountain Microwave* standard ignores such contractual provisions between potential spectrum lessors and lessees as put forth under the Commission spectrum leasing proposal. *Id.* at 24,231, para. 76.

<sup>206</sup> *Id.* at 24,231–32, para. 78 (proposing to develop a new standard “in lieu” of *Intermountain Microwave*); see also *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 12 (citing *Bechtel v. FCC*, 957 F.2d 873 (D.C. Cir. 1992)) (stating that the Commission is obligated to evaluate its previous policy decisions over time, determine whether they still serve their intended purpose and amend them if they are no longer relevant).

<sup>207</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,232, para. 79.

<sup>208</sup> See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 14 (noting that the proposed standard lacks the flexibility necessary for parties to structure marketplace leases and should be liberalized); *RTG Comments to Secondary Markets NPRM*, *supra* note 156, at 22 (asserting that the new standard simply reiterates *Intermountain Microwave's* “day-to-day” oversight requirement of licensees without maintaining the other incidents of control).

<sup>209</sup> As discussed previously, holding licensees fully responsible for lessees' actions will diminish incentives to lease

Also, the proposal may retard the growth of secondary markets with its restrictive and intrusive nature.<sup>210</sup> Ironically, however, the legitimacy of this standard may be threatened by the liberal approach it has taken to establishing the grounds for its authority.

As noted above, Congress did not define “control” in the Communications Act.<sup>211</sup> Under *Chevron*, this omission entitles the FCC to broad discretion in interpreting the term “control.”<sup>212</sup> This relatively free reign has allowed the Commission to develop its several tests for control.<sup>213</sup> However, this discretion is not unlimited. *Chevron* also holds that an agency's definition will not be respected if deemed arbitrary, capricious or manifestly contrary to the statute.<sup>214</sup> While courts generally have upheld the Commission's application of its changing control standards to date,<sup>215</sup> some courts have overruled recent Commission interpretations of other undefined or vague statutory language.

In *Association of Communications Enterprises v. FCC*,<sup>216</sup> the U.S. Court of Appeals for the District of Columbia struck down a Commission definition used in a similar situation to the definition of “control” in the *Secondary Markets NPRM*.<sup>217</sup> In *Ass'n of Communications Enterprises*, the FCC relieved, as part of a merger condition, an affiliate of SBC Communications from market-opening obligations that Section 251 of the Telecommunications Act of 1996 [hereinafter “Telecom Act”] imposes on incumbent local exchange carriers

spectrum, thereby slowing the development of efficiency-seeking secondary markets. See discussion *supra* notes 156–59; see also Comments of Winstar Communications, Inc. to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 10–11 (Feb. 9, 2001) [hereinafter *Winstar Comments to Secondary Markets NPRM*].

<sup>210</sup> See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 14–15.

<sup>211</sup> See H.R. REP. NO. 73-1850, at 4–5 (1934).

<sup>212</sup> *Chevron*, 467 U.S. at 843 (finding that congressional silence or ambiguity equates to an express delegation of authority to the agency to supplement or clarify the statutory language by way of regulation).

<sup>213</sup> See *Lorain Journal Co.*, 351 U.S. at 828–29 (interpreting the FCC's authority broadly to confirm an agency's ability to develop varying standards of control, depending on the circumstance).

<sup>214</sup> *Chevron*, 467 U.S. at 843–44.

<sup>215</sup> See *Tele. and Data Sys., Inc.*, 19 F.3d at 49 (upholding Commission's ability to alter its control standards when done so with a reasoned explanation, but reversing the agency's uneven application of those standards).

<sup>216</sup> 235 F.3d 662 (D.C. Cir. 2001).

<sup>217</sup> *Id.* at 663.

(ILECs), such as SBC, and their “successors and assigns.”<sup>218</sup> The Commission exempted the affiliate by defining “successors and assigns” to not include affiliates.<sup>219</sup> The court essentially found the Commission’s definition of “successors and assigns” to be unreasonable and an attempt at “circumvent[ing] the statutory scheme.”<sup>220</sup> The court made this determination by looking at the overall structure of the Telecom Act and finding that the Commission’s definition of “successors and assigns” was manifestly contrary to the Telecom Act’s intended goal of promoting competition.<sup>221</sup>

When comparing the Commission’s actions in *Ass’n of Communications Enterprises* with its new standard for control developed in the secondary markets proposal, potential problems emerge for the new standard. Like the Commission’s definition of “successors and assigns,” the Commission’s definition of control under the new standard may produce results that contradict the basic intent of the underlying statute. As Hazlett and others have pointed out, the purpose of the Communications Act was to supplant common law private property rights in spectrum with empowering a licensing commission to act as spectrum administrator.<sup>222</sup> The Commission’s control standard, however, is part of a process that is geared toward reversing that statutory design. As the D.C. Circuit’s deci-

sion in *Ass’n of Communications Enterprises* illustrates, such a reversal must come by statutory alteration, not the alteration of agency policy.

However, the Commission’s proposed standard for license control is unlikely to be found unreasonable or manifestly contrary to the Communications Act at this time.<sup>223</sup> As the Commission’s intention, and as noted above, to confer of full responsibility on licensees, in the *Secondary Markets NPRM*, manufactures a fiction that saves it from this fate.<sup>224</sup> Yet, this is not to say that the infusion of further flexibility and greater property rights will not present this issue to the Commission in future deliberations on whether to amend or even abolish standards of control.

Even with a standard of government spectrum control solidly within the Communications Act’s intent, the Commission’s proposed standard is not completely clear of *Chevron’s* prohibitions. By adopting yet another standard for control and not applying it evenly in every circumstance, the Commission’s decision may be deemed arbitrary and capricious and the standard unreasonable.<sup>225</sup> As Cingular Wireless pointed out in its comments to the *Secondary Markets NPRM*, “it would . . . make little sense to apply completely different control tests within the same service depending upon

<sup>218</sup> *Id.* at 663–65 (reciting facts of the case).

<sup>219</sup> The affiliate was engaged solely in providing advanced telecommunications services. *Id.* at 664–66.

<sup>220</sup> *Id.* at 666.

<sup>221</sup> The court held that because Congress did not authorize affiliate structures for advanced services, it must not have intended for § 251’s market-opening obligations to be avoided by the use of an affiliate. As a result, the court found the Commission’s use of its successor and assign definition to be “a form of legal jujitsu to justify its relaxation of § 251(c)’s restrictions” and an unreasonable exercise of authority. *Id.* 667–68.

<sup>222</sup> Hazlett, *supra* note 48, at 924 (embracing the view of one of the Communication Act’s congressional architects, U.S. Senator Clarence C. Dill).

<sup>223</sup> Commentators to the *Secondary Markets NPRM* overwhelmingly acknowledge the new proposed control standard’s compliance with the requirements of § 310(d), with some finding it too strict. See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 13–14; *Securicor Comments to Secondary Markets NPRM*, *supra* note 14, at 15; *Winstar Comments to Secondary Markets NPRM*, *supra* note 209, at 9; Comments of Sprint Corporation to the *Notice of Proposed Rulemaking in WT Dkt. No. 00-230*, at 2 (Feb. 9, 2001) [hereinafter *Sprint Comments to Secondary Markets NPRM*] (citing the ability of ITFS and guard band managers to lease without prior FCC approval as proof that the *Secondary Markets NPRM* leasing proposal poses no significant legal issues).

<sup>224</sup> It is important to note that the FCC’s new proposed

standard of control employs a fiction of licensee control similar to one already exhibited in lease-like agreements in the broadcast arena. In radio industry joint ventures known as time brokerage agreements (TBAs), a licensee may sell blocks of time on its station to a “broker” (that is lessee) who then supplies programming at that time over the licensee’s facilities, sells the commercials for that time and collects and keeps the proceeds. A similar arrangement known as a local marketing agreement (LMA) exists in the television industry. See *In re Citicasters Co., Notice of Apparent Liability for Forfeiture*, File No. 00-IH-0283, DA 01-344, at para. 2 n.4 (Feb. 13, 2001) [hereinafter *Citicasters*]. These arrangements are essentially spectrum leases. While licensees cannot relinquish as much actual control as wireless licensees, under the Commission’s spectrum leasing proposal, a licensee essentially hands real control of its spectrum to a lessee and complies with § 310(d) by taking ultimate responsibility for compliance. See *Citicasters*, at para. 8 (noting that improper transfers of control are determined by measuring how much authority a licensee concedes in the three areas forming the locus of control of a broadcast station: programming, personnel and finances).

<sup>225</sup> See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,231, para. 77 (“In our [the Commission’s] discussion of *Intermountain Microwave* in this NPRM, we [the Commission] neither address, nor propose to limit, the use of the *Intermountain Microwave* standard in contexts other than spectrum leasing.”) (noting that the *Intermountain Microwave* standard will still be applied when interpreting the spectrum aggregation and cellular cross-ownership rules).

whether spectrum leasing is involved.”<sup>226</sup> Such a diversity of approaches would only be confusing and perpetuate the regulatory uncertainty the secondary markets initiative is intended to reverse.<sup>227</sup>

Aside from possibly straying too far from the language and intent of the Communications Act by proposing overly confining rules, the proposed standard presents another irony by threatening the efficacy of another Commission rule aimed at promoting competition, namely the CMRS spectrum cap. In another proceeding, the Commission is currently considering whether it should eliminate, amend or maintain the CMRS spectrum cap.<sup>228</sup> Opponents of the CMRS spectrum cap assert that it is no longer necessary in light of the extremely competitive CMRS marketplace<sup>229</sup> and alternative means of restraining anti-competitive behavior.<sup>230</sup> Among the alternative means of restraining anti-competitive behavior, the most often alternative mean cited is the case-by-case review required for license transfers under Section 310(d).<sup>231</sup> However, if a growing number of spectrum transactions do not receive review under Section 310(d), this potential alternative to the CMRS spectrum cap will no longer exist for all practical purposes.<sup>232</sup> The most effective way to resolve this issue is to eliminate the CMRS spec-

trum cap altogether and rely on the multitude of other enforcement options to guard against market concentration. By eliminating the CMRS spectrum cap, a major disincentive to spectrum leasing would be removed for both licensees and lessees and the Commission’s end goal of promoting competition would still be effectively served.<sup>233</sup>

#### b. *Modified Commission Approval*

For those who believe any type of spectrum leasing agreement requires Commission approval under Section 310(d), regardless of Commission requirements, the *Secondary Markets NPRM* invited comment on two alternatives that would enable leasing agreements.<sup>234</sup> First, the *Secondary Markets NPRM* proposed that the Commission make a blanket determination that transfers of control that comply with the Commission’s rules for leasing arrangements are in the public interest and should be automatically granted because they meet the Section 310(d) public interest requirement.<sup>235</sup> The Commission has used blanket determinations in the past to overcome separate SMR end user licensing and satellite earth stations licensing requirements.<sup>236</sup> The *Secondary Markets*

<sup>226</sup> *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 12 (discussing policy asymmetry).

<sup>227</sup> *Id.*

<sup>228</sup> *Spectrum Cap NPRM*, *supra* note 186.

<sup>229</sup> See *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 6 n.13 (citing *Spectrum Cap NPRM*, para.14) (describing competitive state of marketplace); Beckwith, *supra* note 92, at 380 (stating that competition has made the CMRS spectrum cap unnecessary).

<sup>230</sup> Commentators to the *Secondary Markets NPRM* have explained that the role of the CMRS spectrum cap should be filled by case-by-case enforcement options available under Department of Justice and Federal Trade Commission anti-trust review, the anti-monopolization provisions of the Communications Act, and the public interest requirements in § 310(d). *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 6 n.14; see also Comments of Bell Atlantic Mobile, Inc. to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 11 (Jan. 25, 1999) (noting that potential market concentration in a given service area could be reversed by the Commission enlarging the amount of spectrum in the area by allocating more bandwidth). Commentators have also stressed that the CMRS spectrum cap could delay the deployment of third generation (3G) wireless services as wireless providers have a limited amount of spectrum to meet the expected demand. *AT&T Wireless Comments to Secondary Markets NPRM*, *supra* note 190, at 6–7.

<sup>231</sup> *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 6 n.14 (including the case-by-case enforcement options available under the public interest requirements in

§ 310(d) in the suite of mechanisms for ensuring competitive markets); see also Beckwith, *supra* note 92, at 388–91 (citing license case-by-case review of transfers of control under § 310(d) as possible mechanism to prevent anti-competitive market developments).

<sup>232</sup> *Spectrum Cap NPRM*, *supra* note 186, at para. 19 n.70 (recognizing no-approval spectrum leasing’s elimination of a potential alternative to the spectrum cap and inviting comment on alternative means of ensuring competition).

<sup>233</sup> See discussion *supra* notes 190–92. Licensees are deterred by the prospect of having spectrum attributed to them that they do not control, while lessees view the CMRS spectrum cap as another regulation hindering their actions in a prospective market.

<sup>234</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,332–33, para. 81 (noting the view that § 310(d) requires FCC pre-approval of spectrum leases).

<sup>235</sup> This proposal is based on the fact that spectrum leasing in itself is in the public interest. *Id.*

<sup>236</sup> See *In re Amendment of Part 90 of the Commission’s Rules to Eliminate Separate Licensing of End Users of Specialized Mobile Radio Systems*, *Report and Order*, 7 FCC Rcd. 5558, para. 1 (1992) [hereinafter *Part 90 Report and Order*]; *In re Redesignation of the 17.7–19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7–20.2 GHz and 27.5–30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3–17.8 GHz and 24.75–25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, *Report and Order*, 15 FCC Rcd. 13,430, para. 1 (2000).



*NPRM* supplemented the blanket determination approach by also proposing the use of “short form” notification procedures in the transfer approval process.<sup>237</sup> The FCC has used these short form notification procedures in the past when it implemented *pro forma* assignments and transfers of telecommunications licenses to approve such license transfers.<sup>238</sup> Together, the blanket determination and the short form notification represent a form of modified Commission approval.

Despite seeming to dodge the transfer of control issue, modified approval by the Commission runs foul of Section 310(d) in two important ways. First, it is clear that Section 310(d) requires that transfers of control be determined on a case-by-case basis.<sup>239</sup> A blanket determination by the Commission that all spectrum leases complying with FCC rules are within the public interest directly contradicts this requirement. The examples of blanket determinations that the Commission cites in its proposal of the modified approval approach do not deal with Section 310(d). Also, while short form notice would seem to provide the fiction of case-by-case FCC approval, which blanket determinations lack on their own, short form notice still would not constitute true case-by-case approval because the applications would essentially be approved even before they are submitted. Such an approach would surely run into the type of *Chevron* problems discussed above. Moreover, in providing support for the use of short form notices, the Commission cited a proceeding where it had already invoked its forbearance authority prior to requiring short form notices.<sup>240</sup> This fact demonstrates that the notice is essentially a ministerial mechanism that does not allow for the real exercise of Commission control, and would therefore violate Section 310(d).

### c. Utilizing §10(a) Forbearance Authority

Where one finds that section 310(d) requires FCC approval and modified approval insufficient, the *Secondary Markets NPRM* invited further comment on the possibility of the FCC using its forbearance authority under the Communications Act, as amended by the Telecom Act, to avoid the requirements of Section 310(d).<sup>241</sup> While forbearance is the last of the alternative proposals the Commission recommended, it is actually the best suited to promote secondary markets, and therefore, should be the Commission’s primary proposal. Unlike its no-approval and modified approval proposals, forbearance does not require the Commission to sacrifice its overall policy goal of clarifying spectrum users’ rights in order to satisfy an inflexible requirement of control. Section 310(d) and its accompanying confusion would be removed under a forbearance approach, as the Commission could more freely apportion responsibility according to who is actually operating on the spectrum and not who holds the license.<sup>242</sup>

Under Section 10(a) of the Telecom Act, the FCC may forbear from enforcing other sections of the Communications Act, against a telecommunications carrier or service or a class of telecommunications carriers or services if: 1) enforcement is not necessary to ensure that charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; 2) enforcement is not necessary to protect consumers; and 3) forbearance would be consistent with the public interest.<sup>243</sup> If forbearance were invoked, most of the exclusive Wireless Communications Services affected by the *Secondary Markets NPRM* qualify as telecommunications services and could potentially be relieved from the

<sup>237</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,232–33, para. 81.

<sup>238</sup> See generally *In re Federal Communications Bar Association’s Petition for Forbearance from Section 310(d) of the Communications Act Regarding Non-Substantial Assignments of Wireless Licenses and Transfers of Control Involving Telecommunications Carriers and Personal Communications Industry Association’s Broadband Personal Communications Services Alliance’s Petition for Forbearance For Broadband Personal Communications Services*, *Memorandum Opinion and Order*, 13 FCC Rcd. 6293, para. 2 (1998) [hereinafter *FCBA’s Petition for Forbearance*].

<sup>239</sup> See Beckwith, *supra* note 92, at 374–75 (stating that § 310(d) requires a Commission review of assignments and

transfer applications on a “case-by-case basis.”).

<sup>240</sup> *FCBA’s Petition for Forbearance*, 13 FCC Rcd. at 6306–07, para. 24 (finding that forbearance from § 310(d)’s requirements for *pro forma* transactions is consistent with the public interest).

<sup>241</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,233, para. 82 (offering forbearance as an alternative to the no prior approval and modified approval proposals).

<sup>242</sup> By forbearing, the Commission would be saving itself, as well as licensees from confusing and costly control standards. See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 11.

<sup>243</sup> 47 U.S.C. § 160 (1994 & Supp. IV 1998).

requirements of section 310(d).<sup>244</sup> Upon application of the test, the Commission's spectrum leasing proposal satisfied this forbearance test.

With respect to the first prong of the forbearance test, prior FCC approval of spectrum leasing agreements is not necessary to ensure that licensees' charges, practices, classifications, and services are just and reasonable nor unreasonably discriminatory.<sup>245</sup> The high level of competition in the fixed and mobile wireless marketplace is such that charges and practices are sure to remain market driven and beneficial to consumers.<sup>246</sup> In addition, the introduction of spectrum leasing and secondary markets will only result in more wireless competition to ensure just and reasonable service.<sup>247</sup> Furthermore, by making the licensee directly accountable to the Commission and fully responsible for ensuring compliance of the Commission's rules, the Commission maintains the ability to check unjust or unreasonable charges or practices.<sup>248</sup>

As with the first prong of the forbearance test, the protection of consumers under the second prong is also ensured by existing and future competition in the wireless marketplace and the licensee's direct accountability to the Commission. The protection of consumers from objectionable lessee actions provided by Section 310(d) approval may also be effectively replaced by the continued ability of aggrieved consumers to file petitions to deny license renewals.<sup>249</sup>

With respect to the third prong of the test, for-

bearance from applying section 310(d) to spectrum leasing is clearly consistent with the public interest. As the Commission has noted, spectrum leasing will foster the development of secondary markets that will encourage the efficient spectrum use that enables wider and more sophisticated exploitation of the spectrum for the benefit of the general public.<sup>250</sup> When this finding is combined with the preceding two prongs of Section 10(a)'s test, forbearance from applying Section 310(d) is justified.

Forbearance does present some challenges to the overall secondary markets movement, yet it does not diminish its superiority to the Commission's other proposals. As noted, section 10(a) grants the Commission forbearance authority over a "telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services."<sup>251</sup> Telecommunications carriers are essentially defined as providers of telecommunications services and treated as common carriers under the Communications Act.<sup>252</sup> Telecommunications service is "the offering of telecommunications for a fee directly to the public."<sup>253</sup> Under these definitions, all of the exclusive Wireless Radio Services affected by the *Secondary Markets NPRM* are eligible for forbearance, except Private Land Mobile Radio Services (PLMRS). By definition, PLMRS does not offer service directly to the public for a fee, rather it is only allowed to use the spectrum for its own private purposes.<sup>254</sup> As a result, PLMRS can-

<sup>244</sup> As discussed below, not all the licenses effected by the *Secondary Markets NPRM* would be eligible for § 10(a) forbearance. See discussion *infra* notes 249–50.

<sup>245</sup> See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 12 (endorsing forbearance approach to justifying spectrum leasing proposal and finding that it meets all three prongs of the forbearance test); *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 16 (finding leasing proposal meets all three prongs of forbearance test).

<sup>246</sup> The highly competitive wireless marketplace is the most effective deterrent to CMRS carriers charging rates or engaging in practices that are unjustly or unreasonably discriminatory. See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 12–13 (quoting *In re Wireless Consumers Alliance, Inc., Memorandum Opinion and Order*, 15 FCC Rcd. 17,021, para. 21 (2000) *reconsideration denied*, FCC No. 01-35, WTB (Jan. 31, 2001); *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 16 (citing *Spectrum Cap NPRM*, para. 18)).

<sup>247</sup> See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 12 (citing *In re Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993: Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, Fifth Re-*

*port*, 15 FCC Rcd. 17,660 (2000)).

<sup>248</sup> The argument against the leasing proposal is not that it frustrates accountability, as is the issue here, only that it may retard investment and economic creativity. See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 12; *CTIA Comments to Secondary Markets NPRM*, *supra* note 156, at 16.

<sup>249</sup> See *Cingular Comments to Secondary Markets NPRM*, *supra* note 192, at 13.

<sup>250</sup> See *Secondary Markets NPRM*, 15 FCC Rcd. at 24,210, para. 18; see also *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,186, para. 19; Hatfield, *supra* note 5 (noting that secondary markets will give existing licensees incentive to employ more spectrally efficient technologies in order to lease spectrum surpluses they create).

<sup>251</sup> 47 U.S.C. § 160(a).

<sup>252</sup> 47 U.S.C. § 153(44) (1994 & Supp. IV 1998) (defining telecommunications carrier).

<sup>253</sup> 47 U.S.C. § 153 (46) (defining telecommunications service).

<sup>254</sup> 47 C.F.R. § 90.35 (2000) (defining PLMRS); see also *Secondary Markets NPRM*, 15 FCC Rcd. at 24,220, para. 46 ("[L]icensees in certain PLMRS bands are limited to non-commercial use of the spectrum, that is, licensees may use

not be considered a telecommunications service for the purposes of Section 10(a) forbearance. However, in the aggregate, the application of the Commission's proposed control standard to PLMRS would only slightly diminish the certainty, flexibility and efficiency gains realized by forbearing from enforcing Section 310(d) against other commercial Wireless Radio Services.

The limitation of Section 10(a) to telecommunications carriers or services also presents a challenge to the future of secondary markets that the *Secondary Markets NPRM* alluded to by excluding broadcast spectrum use from the scope of the proceeding.<sup>255</sup> Desiring to maintain their high level of control over what are considered powerfully invasive content-delivering mediums, Congress and the FCC have not developed a forbearance mechanism similar to Section 10(a) for radio and television broadcast.<sup>256</sup> While this fact would not present an obstacle to the present rulemaking proceeding, it would hinder future proceedings seeking to extend spectrum leasing to broadcast licenses. As with PLMRS, the efficiency gains realized from applying a more flexible standard of control to broadcasters would not equal, but be considerable to those achieved through forbearance from enforcing Section 310(d). However, secondary markets must be allowed to develop in broadcast, non-broadcast and every use in between if the most efficient allocation of spectrum is ever to be achieved.<sup>257</sup> Ultimately, amendment of the Communications Act will be necessary to provide the Commission with the authority to forbear from enforcing Section 310(d) against broadcasters, as it currently allows for telecommunications services under Section 10(a).<sup>258</sup>

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spectrum on a private internal use basis, but may not offer wireless service on a commercial basis to others."); *Id.* at 24,220, para. 46 n.61 (noting that the commercial/noncommercial distinction is the basis for the differences in regulatory treatment between private and commercial wireless services).

<sup>255</sup> *Secondary Markets NPRM*, 15 FCC Rcd. at 24,227, para. 69; see also *supra* notes 69–70 for discussion.

<sup>256</sup> *Pro forma* transfers are allowed, but not under any forbearance authority. See *In re* 1998 Biennial Regulatory Review—Streamlining of Mass Media Applications, Rules, and Processes, *Notice of Proposed Rule Making*, 13 FCC Rcd. 11,349, 11,376–77, paras. 74–77 (1998).

<sup>257</sup> Including broadcast licenses in the secondary markets initiative, whether through forbearance or a relaxed control standard, will be difficult given the vocal advocacy of policymakers seeking to maintain content control. See *Tristani's Statement to Secondary Markets NPRM*, 15 FCC Rcd. at

While not perfect, forbearance from section 310(d) is the best way to allow secondary markets to evolve. By removing Section 310(d), forbearance eliminates the need for the legal fiction of licensee control and its accompanying complications.<sup>259</sup> The Commission then no longer must balance control against flexibility and can allow parties to contract more confidently and freely with user rights that are clearly defined. The end result of forbearance from Section 310(d) is spectrum put to its most valued use to more accurately meet the demands of our society.

## V. SECONDARY MARKETS AND FORBEARANCE: PREREQUISITES TO THE SPECTRUM EXCHANGES OF THE FUTURE

### A. Technology Driving the Market and Policy

The secondary markets initiative is the next stage in the evolutionary development of spectrum policy that has been marked to date by the growing infusion of greater property rights into the spectrum licensing system. Influenced largely by the work of such law and economics theorists as Coase and Posner,<sup>260</sup> policymakers have acted on this liberalization of rights to adopt such market-based assignment mechanisms as auctions and spectrum leasing. As a result, this movement has allowed spectrum users to more accurately discern the value of the spectrum and use it more efficiently. However, like in most aspects of the modern world, technology has provided a series of catalytic events that have continually pushed

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24,262 (objecting to mentioning of broadcast licenses in *Secondary Markets NPRM* and stressing that any discussion of broadcast licenses must include licensees' public interest responsibility to provide for localism and diversity in its service).

<sup>258</sup> As the courts have indicated, the FCC must have express statutory authority to forbear from provisions of the Act. See generally *MCI Telecomm. Corp. v. AT&T*, 512 U.S. 218 (1994); *Ass'n of Communications Enter. v. FCC*, 235 F.3d 662 (2001).

<sup>259</sup> At the *Public Forum*, Motorola Vice President Rich Barth stated that the Commission could begin the process of fostering spectrum leasing and secondary markets by taking away the "bureaucratic hire 50 lawyers to get it done process," thereby leaving a "more user-friendly system." See *Public Forum*, *supra* note 94, at 115.

<sup>260</sup> See generally Coase, *supra* note 66; POSNER, *supra* note 77, at 33.

such theoretical movements and altered the course of spectrum's evolutionary process.

From the early advancements in the technology that led to the explosion of radio use and eventual regulation in the 1920's to the rise of cellular systems and their siphoning of any available frequency bands, technological developments have dramatically changed the wireless economic and regulatory landscape.<sup>261</sup> The technological development most likely to reshape spectrum markets and policy in the future is software-defined radio (hereinafter "SDR").<sup>262</sup>

While SDR is still in its developmental stages,<sup>263</sup> both industry and the FCC recognize the potential use of the technology and are pursuing its improvement.<sup>264</sup> It is widely recognized that SDR has the potential to revolutionize the wireless landscape with its ability to conduct all functions in software-defined units that can be altered easily by

changing computer programs, rather than changing radio hardware as currently required.<sup>265</sup> For example, SDR's ability to make equipment operate in different bands and according to different standards (even simultaneously) could facilitate the global deployment of equipment, as manufacturers would no longer be constrained by varying country standards and allocations and the imposing economies of scale they currently present.<sup>266</sup> More importantly for the purposes of this inquiry, however, SDR has tremendous potential to foster secondary markets in spectrum.<sup>267</sup> With its ability to alleviate congestion of the spectrum by locating unused spectrum instantaneously and dynamically shepherding signals (in data form) along those unused frequencies, SDR will bring dramatic efficiencies in spectrum use that will open up the medium to new technologies, new services and new users.<sup>268</sup>

<sup>261</sup> From the early days of radio to today's Internet society, Congress and the courts have continually invoked the concept of technological change and the need to keep up with it as justification for their attempts to revise the law. See PETER W. HUBER, ET AL., FEDERAL TELECOMMUNICATIONS LAW 861-65 (2d ed. 1999) [hereinafter HUBER] (giving a brief overview of the technological developments in the wireless industry and the impact of technological advancements on the marketplace and regulatory environment). See generally Monroe E. Price & John F. Duffy, *Technological Change and Doctrinal Persistence: Telecommunications Reform in Congress and the Court*, 97 COLUM. L. REV. 976 (1997) [hereinafter Price & Duffy].

<sup>262</sup> In SDR, computer software is used to determine and set all operating parameters, such as the frequency and modulation type. This is contrary to present systems where such parameters are changed by physically altering the electronic signal within the equipment hardware. As a result of this difference, SDR may be programmed to transmit and receive on any frequency and to use any desired transmission format, thereby allowing the user to operate in multiple radio services and according to varying standards. Also, in contrast to traditional radios that have their technical characteristics fixed at the time of manufacture and cannot be easily modified, SDRs may be altered in the field by a software change. See WHATIS?COM, SOFTWARE-DEFINED RADIO (SDR), at <http://whatis.techtarget.com> (last visited June 22, 2001) (defining SDR); see also SDR FORUM, SDR PRIMER, at [http://www.sdrforum.org/sdr\\_primer.html](http://www.sdrforum.org/sdr_primer.html) (last visited June 22, 2001).

<sup>263</sup> See FCC to Investigate Software-Defined Radio Technology, MOBILE COMM. REP., Mar. 20, 2000 (quoting a FCC official as saying that interference is a potential concern with SDR technology because it operates on many frequencies, thereby raising changes of interference); George Lawton, *Flexible Future*, WIRELESS REV., Jan. 15, 2001 available at <http://www.telecom.click.com/magazinearticle.asp?magazinearticleid=28268&mode=print> (noting that SDR has not taken off in handsets and other mobile formats because of the difficulty in developing equipment (for example, batteries) capable of meeting the size and power requirements of mobile SDR equip-

ment).

<sup>264</sup> In the effort to develop SDR technology, the Commission has initiated a rulemaking proceeding proposing rule changes streamlining approval procedures so carriers will not have to resubmit applications and re-label hardware out in the field after altering software programs in central locations. See generally *In re Authorization and Use of Software Defined Radios, Notice of Proposed Rulemaking*, 15 FCC Rcd. 24,442 (2000) [hereinafter SDR NPRM]. The Industry has responded to the Commission's proceeding by forming a trade group, the Software Defined Radio Forum, comprised of corporations (mostly equipment manufacturers) dedicated to promoting SDR primarily through the agency comment process. See SDR Forum, *About the Software Defined Radio Forum*, at [http://www.sdrforum.org/about\\_index.html](http://www.sdrforum.org/about_index.html) (last visited Apr. 23, 2001).

<sup>265</sup> See SDR NPRM, 15 FCC Rcd. at 24,443-44, para. 4 ("The ability of software defined radios to be reprogrammed to new operating parameters in the field could have far reaching implications for the way the Commission allocates and licenses spectrum and authorizes radio equipment.").

<sup>266</sup> See, e.g., FCC Proposes Rule Changes to Facilitate Software Defined Radio Deployment—Separate Statement of Commissioner Susan Ness, ET Dkt. No. 00-47, FCC NEWS, Dec. 7, 2000, at 2 [hereinafter Ness' Public Statement] (noting that SDR could foster global deployment of equipment by lowering barriers presented by different country allocations and rules).

<sup>267</sup> See Comments of SDR Forum to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 3 (Feb. 9, 2001) [hereinafter SDR Forum Comments to Secondary Markets NPRM] (concurring with *Secondary Markets Policy Statement* that SDR technologies will play a major role in facilitating the development of effective secondary markets).

<sup>268</sup> See SDR Forum Comments to Secondary Markets NPRM, *supra* note 267, at 3 ("SDR technology can, in time, enable exactly the sort of flexible, timely adjustments that will be necessary for a leased-spectrum market to thrive."); Ness' Public Statement NPRM, *supra* note 266, at 2 (stating that ability of SDR to "operate under different parameters in different places" provides a flexibility that may enable strong secondary markets); HUBER, *supra* note 261, at 865 (accepting phi-

Among the many possible consequences of SDR on wireless markets and policy, probably the most significant is the technical ability to create an environment where dynamic spot markets and commodity-like exchanges for wireless spectrum bandwidth can develop. The FCC recognizes that with the ability to agilely adapt to the frequency, modulation, bandwidth and power requirements of various service rules, SDR will engender the requisite flexibility to allow services to travel over multiple frequencies and allow a single frequency to accommodate multiple services.<sup>269</sup> At the same time, the Commission recognizes the need for mechanisms that promote information sharing and bring parties together.<sup>270</sup> This technical flexibility and exchange mechanism combined will enable licensees to more fully separate their spectrum use rights from their facilities to make spectrum a truly fungible good capable of being traded like other commodities.<sup>271</sup> Indeed, guard band managers represent the first wave of experimentation with this new model and, when coupled with the secondary markets initiative, mark the beginning of the next major shift in spectrum policy.<sup>272</sup> However, in establishing a spectrum leasing regime based on the guard band manager and secondary market initiatives, as presently formulated, the Commission may be hindering the development of the exchange-driven spot markets it seeks.

## B. Obstacles and Bridges to the Spectrum Exchanges of the Future

Under the guard band manager initiative and the Commission's leasing proposal in the *Sec-*

*dary Markets NPRM*, the Commission holds licensees ultimately responsible for the actions of their lessee or sublessee to accommodate the control requirements of Section 310(d). However, in an environment where SDR and other digital communications will enable signals to be carried over multiple frequencies with alacrity similar to IP networking, the fiction of control currently being enforced would take on even greater implausibility. One can imagine a scenario where a licensee leases out spectrum through a clearinghouse for a very short period of a time (i.e., a day, an hour or a few minutes) without ever knowing the lessee until well after the term of use has expired. Indeed, this is the very kind of efficient spectrum use the *Secondary Markets NPRM* claimed it hoped to one day develop.<sup>273</sup>

In the scenario described above, licensees maintain virtually no real control over the leased spectrum. Requiring licensees to maintain control over leased spectrum would only hinder transactions. Certifying that each spectrum lessee in an SDR environment meets all eligibility requirements and complies with all technical and service rules, as the second prong of the proposed standard requires, would greatly increase the administrative burden experienced in the current environment and serve as a clear disincentive to overall spectrum leasing. Complicated certification and liability provisions would have to be included in contracts between licensees and exchanges, as well contracts between exchanges and lessees. Such a standard would needlessly drag a third party (the licensee) into a compliance regime that could suffice with only two parties: the lessee and the exchange.<sup>274</sup>

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losophy that spectrum capacity is virtually infinite and only limited by our technological ignorance).

<sup>269</sup> *Secondary Markets Policy Statement*, 15 FCC Rcd. at 24,192-93, paras. 36-37.

<sup>270</sup> *Id.* at 24,193-94, paras. 38-39 (proposing online listing of licenses by service, frequencies and services areas, and promoting the development of private spectrum listing services, as well as spectrum brokers and exchanges).

<sup>271</sup> *Id.* at 24,185, para. 17 (recognizing potential fungibility of spectrum and the possibility of creating spectrum exchanges similar to existing wireline bandwidth exchanges).

<sup>272</sup> As discussed above, economist Eli Noam has proposed that the next paradigm in spectrum policy will be the "Open Access Paradigm." This new paradigm will be rooted in the development of SDR technology-based exchanges that will significantly reduce the cost of access to the spectrum. Noam, *supra* note 25, at 778-81. However, Noam's plan to bring about this new paradigm gets hung up on whether the exchanges should be privately administered by exchanges

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handling licensee owned spectrum, or publicly administered by an entity holding the entire spectrum. See Thomas Hazlett, *Spectrum Flash Dance: Eli Noam's Proposal for "Open Access" to Radio Waves*, 41 J.L. & ECON. 805, 813 (1998) (noting that Noam's proposal moves away from liberalizing licensees' property rights and moves toward a monolithic open access system eliminating property rights and the incentives they create).

<sup>273</sup> The initiation of the secondary markets proceeding was an important project for former FCC Chairman William Kennard. Kennard stated that the Commission must alleviate the coming spectrum drought by creating a fluid spectrum marketplace where spectrum and information about spectrum flows as freely as with any other commodity. Kennard, *supra* note 5.

<sup>274</sup> It also increases the risk of liability for all involved by unnecessarily inflating the number of potentially breaching parties involved.

Giving licensees the authority to suspend or terminate lessees' operations, as the third prong of the proposed standard provided and the first prong may require, may also hinder the development of clearinghouse or exchange-based secondary markets. Just as with the certification requirement, foisting enforcement responsibilities upon licensees would unnecessarily complicate situations where interference must be corrected by requiring them to engage in remediation efforts with the exchange, the lessee and the Commission. Such a process and its attendant time and expense could be spared from innocent and unknowing licensees by simply holding lessees responsible and keeping the Commission and possibly the exchange as the primary enforcement entities. Prospective licensees would be more inclined to exercise their right to transfer spectrum under the latter scheme where that right would be more certain. Lessees, for their part, may also be more inclined to enter into leasing agreements they know will be policed by objective third parties, such as the Commission or an exchange.

Opponents of holding lessees responsible for compliance in a SDR environment may cite the guard band manager as a model for the future of spectrum exchanges. Under such a proposal, guard band managers would hold all the licenses and lease the spectrum out to users. This way the spectrum users' rights would be clearly defined by a single entity, the guard band manager, and the Commission could easily conduct enforcement through the guard band manager. While such an approach seems like a good way to reduce regulatory uncertainties by simplifying the process, it reintroduces a character whose exile is at the heart of the secondary markets initiative—the government. In order to consolidate most licenses with guard band managers, the Commission would have to undertake a monumental reallocation of spectrum, which it disfavors compared to voluntary relocation because it leads to administrative cost and delay and the waste of capital investment laid out for existing and planned services.

Even if the Commission allowed licenses to lapse and subsequently reallocated them under a guard band manager exchange plan, it would still be missing an opportunity to allow market forces to create an exchange infinitely more efficient.<sup>275</sup> By creating too many or too few exchanges or exchanges with too much or too little spectrum, the Commission could overheat or depress competition. By allowing secondary markets and SDR-driven exchanges to develop naturally, the Commission could address eventual market failures after a more complete and accurate picture of the market emerged. Finally, by centralizing license holders, the Commission runs the risk of recreating the rent-seeking behavior Hazlett finds exhibited by broadcasters—they give up certain user rights in exchange for exclusive control of the spectrum and protection from competition.<sup>276</sup>

A liberalized environment where exchanges compete for the business of licensees and lessees by continuously striving to provide better services and lower rates would be preferable to the regimes described above. However, several things must happen to help make this possible. First, Congress and the Commission must get beyond the legal fiction of control imposed by Section 310(d). Short of amending the Communications Act to eliminate the control standard, forbearance from this provision is the best method of achieving this end. By forbearing from enforcing Section 310(d), the Commission may reestablish the connection between responsibility and control by placing the regulatory burden on the party or parties overseeing the operating parameters of the spectrum (that is lessees and exchanges, the most likely groups to engage in misuse and the best situated groups to remedy conflicts). Paradoxically, reestablishing the connection between responsibility and control will sever the link between the spectrum and facilities used in its employment; thereby, freeing spectrum users from unproductive regulatory restraints and uncertainty, while increasing the value of the spectrum at the same time.<sup>277</sup> This occurrence will prove only more valuable, as actual control of spectrum

<sup>275</sup> See Comments of 37 Concerned Economists to the *Notice of Proposed Rulemaking* in WT Dkt. No. 00-230, at 5 (Feb. 7, 2001) (arguing that the Commission should remove regulatory impediments to allow secondary markets to emerge, rather than determine how they should develop).

<sup>276</sup> See Hazlett, *supra* note 48, at 920–21.

<sup>277</sup> DeVany defines liquidity as the “ease and speed with

which an asset may be bought or sold.” DeVany, *supra* note 19, at 633. He also notes that when spectrum is linked with an “asset dedicated solely to producing a specific product, its liquidity is impaired.” *Id.* The uncoupling of the spectrum and the facilities, via abandonment of the control standard, directly increases spectrum’s liquidity and, in turn, its value. *Id.*

is further separated from the licensee in the advanced network of exchanges SDR promises.<sup>278</sup>

Since forbearance is better suited to promote secondary markets than continued enforcement of Section 310(d), it should also be extended to non-telecommunications spectrum uses, particularly broadcast. For this to occur, the Communications Act must be amended to provide broadcast services with a corresponding provision to Section 10(a). Only when all frequencies may be freely alienated will sufficient versatility exist to enable the technology-driven market of the near future to determine how a single piece of the spectrum can be put to its highest valued use.<sup>279</sup> In addition, adoption of forbearance for broadcast services would eliminate a regulatory asymmetry antithetical to the intent of the Communications Act, and which stands as an artificial barrier to the spectrum versatility necessary for unencumbered spectrum markets to evolve.<sup>280</sup>

## VI. CONCLUSION

The U.S. telecommunications industry is faced with the possibility of “spectrum drought” that could significantly retard the development of the industry and the overall economy. The Commission’s secondary markets initiative is a positive step in the process of clarifying spectrum users’

rights and creating a more market based system where currently encumbered spectrum can be liberated by more efficient utilization practices. However, the Commission’s spectrum leasing proposal clings too closely to the Commission’s past of administrative control over spectrum by continuing to insist that licensees be held responsible for their assigned spectrum, even though they do not maintain operational control. Propagating this legal fiction will serve as a disincentive to parties seeking to enter into leasing arrangements, especially licensees who hold the most valuable variable in the equation—the spectrum license. These disincentives will only intensify, as new digital communications technologies increase the ease with which spectrum can be shared among many users. The Commission should take the two steps of forbearing from enforcing the economically and politically outdated control standards of the past and assigning responsibility over the spectrum to the entity operating over the medium to minimize the disincentives to spectrum leasing, particularly in the technologically flexible wireless markets of the future. Such steps would reintroduce the regulatory certainty necessary for parties to create strong secondary markets and begin to reassemble the bundle of rights spectrum once held.

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<sup>278</sup> In a dynamic field such as communications, it is critical to provide for continuous flexibility in allowing resources to be put to changing uses. Robinson, *supra* note 10, at 620

<sup>279</sup> See generally *supra* note 277.

<sup>280</sup> In passing the Telecom. Act, one of Congress’ primary intentions was to eliminate the differences in how competing technologies are regulated. By treating similar but technologically varying services different (television viewers essentially don’t know or care whether their program was at some point carried to them by cable or broadcast), Congress recognized regulation creates disruptions in the marketplace

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by unfairly favoring one market participant over another. While Congress’ efforts have not always resulted in the elimination of this asymmetrical regulation, their stated intent is still clear. See *Mobile Services Fourth Report & Order*, 9 FCC Rcd. at 7123–24, paras. 3–4 (describing symmetrical regulatory framework as part of congressional goal to allow market forces to shape the CMRS market, rather than regulation); see also Price & Duffy, *supra* note 261, at 976 (noting Congress’ desire to “no longer [regulate] in a piecemeal, media-specific fashion, but rather as part of a unified, coherent scheme”).



