What Tomorrow May Bring – the Future of the FCC's Licensed Spectrum Policy

Remarks of FCC Commissioner Kathleen Q. Abernathy
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Thanks for having me here today – it is great to be back for another year at Seminar West.

I have been at the FCC for about a year now. When I arrived at the Commission, I had a pretty clear set of general regulatory principles. But those general principles only go so far. Over the last few months I have devoted significant energy to organizing and honing my views on spectrum policy. I have focused on spectrum, because I believe spectrum based services will provide the next broadband pipe to the home – and the increased competition will have a tremendous impact on our overall regulatory approach to all broadband services.

Today I will sketch out a decision tree for the FCC's licensed spectrum policy. Last Thursday at the San Diego High Tech Council, I set out my views on unlicensed spectrum. Together these remarks will provide a framework for my consideration of spectrum issues, and should provide you with some sense of where my thinking is, while also hopefully contributing to the larger debate.

Spectrum is important because it is a finite natural resource with immense potential value to the American people. That value is derived from commercial services, public safety services, and national security. I will be focusing on the commercial services offered in FCC licensed spectrum bands. Of course, fallow spectrum, in general, has little value. So the goal of the FCC is to create regulatory policies that foster effective investment to deliver services. If private parties don't invest – our spectrum policy is meaningless, because we rely on commercial interests to make it all happen.

It is also important to recognize that the Commission's spectrum management policies must be implemented in the context of numerous restraints – some legal – some factual. Legally we have shared responsibility over spectrum with NTIA and limitations on our authority under the statute. My job is not to question these constraints, but rather to work within them. Factually, we have significant incumbencies in most bands under our jurisdiction.

Within these legal and factual limits, the FCC is charged with three main stages of spectrum decision-making. First the Commission promulgates an allocation – for example, fixed or mobile, aeronautical or satellite, etc. Second the Commission develops service rules to guide the use of the spectrum within the confines of the allocation. Third, the Commission adopts a method for distributing the rights (defined by the allocation and

service rules) to private parties. In performing these tasks, the FCC must also limit harmful interference.

Unfortunately, I believe there has been a "squish problem" in the spectrum policy debate. Folks tend to squish all the respective roles and stages of spectrum policy together. Today I will try not to fall into that trap, and instead focus on rights distribution for the licensed bands. But first a word on allocations and service rules.

There was a time when allocations and service rules were very detailed and narrow. Times have changed at the Commission – and I think increasingly the Commission is inclined to create broad and flexible allocations and service rules where internationally permitted to do so. Flexibility essentially means more rights are put into commercial use. Lack of flexibility essentially leaves these broader rights in government storage – meaning they will inevitably lie fallow. So granting flexibility is about granting rights – which is about getting services to the American people.

One caveat on the trend toward flexible allocations and service rules: the Commission remains committed to preventing harmful interference.

Once the allocation and service rules have been developed consistent with interference protections, the Commission then must determine how best to distribute that bundle of rights. This third decision point is where

Congress has most limited the agency's discretion to act – and where some of the most heated spectrum battles are likely to be waged in the years ahead.

<u>The Key Battleground in the Spectrum Debate: How to Decide Who Gets Which Rights</u>

So what is FCC licensing?

It's the government distributing a good and sanctioning appropriate use.

And what should be the Commission's goal?

To maximize the efficiency of commercial spectrum use by promptly getting as many rights as possible into the marketplace, while protecting licensed uses from harmful interference.

The economy offers us two effective paradigms of rights distribution mechanisms (1) property rights or (2) a "commons". The distribution of spectrum rights can be analyzed as a continuum between these two paradigms.

The private property-like rights model is a lawyer's dream – distribution of all spectrum rights like any other piece of property.

In recent years the Commission has utilized the flexibility granted under the act to move toward a quasi-property rights model – for example through the auction

process. However, full implementation of the property model is foreclosed by the statutory bar on ownership interests in spectrum licenses. The Communications Act's Section 301 states: "It is the purpose of this Act… to provide for the use of such channels, but not the ownership thereof."

Under the property-like approach, maximizing flexibility in service rules and allocations serves the public interest by allowing the "property" to be developed to the greatest degree. The "property" is then sold to the highest bidder in an auction process – and the government role is complete. Ultimately, the market in spectrum becomes a series of secondary transactions with little government intervention.

In contrast, the pure commons approach is an "engineer's dream." The unlicensed bands do not provide for any real interference protection or for any exclusive licensee rights to spectrum. Instead, guided by some technical limitations, the bands are open to all comers so long as they operate approved equipment. This openness eliminates the entry barrier created by the auction price in the property-like rights model – but creates a different kind of barrier by imposing the more detailed technical rules of the common.

In light of these two polar views of spectrum policy, what is a regulator to do?

The Commission is well served by utilizing both the property-like rights approach and the commons model. Just as a city has private land linked together by common roads and parks – so too may the spectrum community enjoy and fully utilize both private property and the commons.

What should be the guiding principles of licensed spectrum policy?

In order to maximize spectrum utility, the FCC should endeavor to get spectrum rights rapidly into the hands of those who can use them most completely.

The method of achieving this goal will depend largely on the nature of the bands involved.

A. Virgin Spectrum Bands

For virgin bands, the Commission must first determine whether the band will be licensed or unlicensed. If it is licensed, then the Commission must determine whether the likely potential uses are mutually exclusive of one another. Mutual exclusivity is important because it is the statutory trigger as to whether the Commission is required to auction the spectrum – although of course there are statutory exceptions.

1. Mutually Exclusive Applications

Flexibility in the Commission's service rules and allocations makes predicting the types of uses likely in a given band very difficult. Without any certainty about the types of services that would be offered in the band, it is virtually impossible to state that mutual exclusivity will not occur. Therefore in order to maintain the viability of flexibly allocated bands with similarly broad service rules, the Commission must find mutual exclusivity and require an auction. This ensures that any resulting licensee will be free to provide their service of choice.

Auctioning also requires us to address the auction exemptions. We have a number of ongoing dockets looking at these issues, but I will only note that there should be auction-exempt spectrum designated for public safety, noncommercial and educational broadcasters and international satellite services. But we must not allow the existence of these exemptions to undermine flexibility.

2. Non Mutually Exclusive Applications

There are rare cases where the allocation, the service rules, or the nature of the technology are so narrow that the Commission can say with certainty that mutually exclusive applications will not be filed. In those cases, the Commission should move promptly to distribute the rights. There has been a tendency within the FCC to feel compelled to auction everything. Although that approach has an appealing symmetry – it is not what the

statute requires, and it does not fit every factual circumstance. So while I believe auctions do offer an efficient rights distribution mechanism – it does not mean all auctions all the time.

B. Spectrum with Incumbencies

In the vast majority of spectrum proceedings, the FCC will be faced with incumbents occupying the band. The FCC will be asked to evaluate whether new services should be permitted into the band either to share with the incumbent or to supplant it.

When faced with incumbent licensees in this situation, the Commission should first ask itself: what is the bundle of rights associated with the current licensee? Licensees must be granted certainty about the bundle of rights they have acquired to enable investment and innovation.

Once government affirms the bundle of rights held by the incumbent, the Commission must turn to the advocates of the new services. Does the incumbent hold the rights to the spectrum use proposed? If the answer is yes, I believe one possible approach is to allow the advocates of the new service to negotiate with the rights-holding incumbent to obtain (or not obtain) the necessary authorization. Of course this policy preference is only possible if there is an effective

secondary market for spectrum – a topic I will return to in a moment.

If the answer is no – that is, if the incumbent does not hold the rights to the spectrum use proposed – then we turn to the next inquiry.

1. Is Sharing Possible?

Are the proposed new uses mutually exclusive with the current use? In other words, would sharing result in harmful interference or substantial efficiency losses?

There are times when this question is easier to answer than others. For example, if the incumbents' or new entrants' rights are extremely narrow, it is easy to assess the potential for sharing.

The most difficult aspect is defining what rises to the level of harmful interference? Or what rises to the level of substantial loss of efficiency? This analysis is further complicated when the proposed new uses represent a new technology or are not clearly defined.

I'm not going to address those issues in this speech. This morning, my goal is to sketch out a spectrum policy decision tree – not to draw the leaves on every branch. I will save these questions for another day.

a. Sharing is Possible

If sharing is possible, then I believe the Commission should treat the subset of rights available as a "virgin" spectrum resource and handle them as described above. So if a domestic satellite use can be made available without harmful interference or substantial efficiency losses to the incumbent terrestrial licensee, the Commission should get those rights into the hands of commercial interests as set out above.

b. Sharing is Not Possible

If sharing is not possible, the Commission is faced with another question: should the incumbent be forcibly moved, or should the proposed new rights be granted to the incumbent? When granted discretion, I begin with the presumption that relocation of incumbent service providers is complex, imposes costs on the economy, takes times, and may undermine investment incentives. Moreover, I am generally very reluctant to insert government into the marketplace on the basis of some asserted "better understanding" of what is the "right" service offering in a band.

Nonetheless there may be cases where government is fairly certain that a new use is higher valued than the current use and that the incumbent would not rationally exercise the rights if they were granted to them. I have defined three situations where it <u>may</u> be justifiable for government to forcibly relocate incumbents: (1) Failure of the Secondary Market, (2) The Irrational Holdout Problem, or (3) Temporal Urgency.

(1) Failure of the Secondary Market

Granting incumbent rights works only if there is an effective secondary market in spectrum rights (something we do not have today). Absent a secondary market, incumbents may be unlikely to utilize or sell the additional rights – because the spectrum cannot evolve to any higher valued use. There may be situations where the sheer number of incumbents or their identity (such as public safety licensees) may also inhibit a secondary market. In these cases, forced relocation may be the only way to maximize utility by introducing new services.

Thus our secondary markets proceeding is an essential piece in our future spectrum policy. We must have secondary markets (that will withstand judicial scrutiny) if the property-like rights-driven license model is to succeed. We must overhaul the antiquated Intermountain Microwave test, we must speed spectrum transactions that do not raise competitive concerns, and we must facilitate spectrum leasing. The secondary markets proceeding is therefore critical to effective spectrum management.

(2) The Irrational Holdout Problem

The irrational holdout problem is why government has eminent domain – namely to prevent any individual property holder from irrationally (that means asking for

a whole lot more than its worth or indeed refusing to sell) blocking the property from evolving to its highest valued use. This can be a real problem even in fully functioning markets – so the Commission should be prepared on rare occasions to step in to force a lone holdout out of a band. I generally believe the Commission should do so only reluctantly, and on a case by case basis if the secondary market is functioning.

(3) Temporal Urgency

Finally government may consider forcible relocation when there is some temporal urgency. Sometimes markets take time – and in extremely rare circumstances the Commission may need to intervene to enable some new service essential to the public welfare.

To the extent we ultimately force relocation, we would presumably have already identified potential uses and would assess the allocation, service rules, and license distribution issues described above.

C. Spectrum Policy and Broadband

Finally, any spectrum policy debate is also inseparably linked to the broadband policy debate. At the Commission, we have and will continue to develop policies that encourage economic investment in facilities-based broadband platforms from cable and telephone company providers. But we are all aware of the

significant legacy regulatory issues associated with these platforms.

Spectrum-based broadband services have the ability to transform this debate. Why? Because every spectrum authorization we grant could be a new facilities-based "last mile." If we facilitate the development of such multiple spectrum-based last miles, we can pull back some of the regulatory burdens that may restrain existing services and allow the broadband marketplace to thrive.

I am convinced that spectrum-based services will provide that next pipe to the home or to wherever you are – and I believe it is essential that our regulatory policies not hinder the development of that third (or fourth or fifth) platform.

That is why last week I laid out what I have called the "nascent services doctrine". That doctrine is premised on the idea that Americans receive the greatest benefit from multiple facilities-based platform competitors and that ultimately less regulation of these services serves the public interest. Under the doctrine, the Commission should restrain from imposing legacy regulation on nascent platforms in order to allow them to develop. Once the platform is a true competitor to the more established providers, then the Commission should strive to achieve regulatory symmetry by deregulating the established platforms.

Some have suggested that regulatory symmetry should be achieved as soon as a platform is delivering "like services". I cannot agree. I do not believe the twin goals of multiple platforms and deregulation can be achieved by burdening new platforms with regulatory anachronisms in the name of reflexive and immediate symmetry. In short, you don't build a treehouse in a sapling. So as part of my spectrum policy, I will fight to hold regulatory proponents at bay while new spectrum-based broadband platforms develop. I believe these platforms are an essential part of the nation's broadband future.

Thanks again for the opportunity to be here – I would welcome any questions.