

**Before the  
National Telecommunications and Information Administration  
Washington, DC 20230**

In the Matter of	)	
	)	
<b>Relocation of and Spectrum Sharing</b>	)	<b>Docket No. 110627357-2209-03</b>
<b>by Federal Government Stations</b>	)	
<b>– Technical Panel and Dispute</b>	)	
<b>Resolution Board</b>	)	
	)	

**COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

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## *Executive Summary*

TIA, a leading trade association for the ICT industry, is a strong supporter of current efforts to fully realize the potential of mobile communications. With America's use of mobile connectivity growing exponentially, TIA shares the concerns expressed by many of a looming "spectrum crunch," as the demand for mobile application out-strips available capacity.

TIA supports the expertise of NTIA in facilitating the process of a Spectrum transition. This transition has been identified as imperative to national policy and TIA is prepared to offer high level support for this process.<sup>1</sup> The Association also strongly supported the passage of the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act).<sup>2</sup>

### **I. SPECTRUM SHORTAGE**

#### *A. AMERICA FACES A SPECTRUM SHORTAGE*

America's use of mobile connectivity is growing exponentially. This increased demand for capacity-intensive access to the Internet is broadly apparent with the rapid growth of smartphone adoption. These devices are essentially handheld computers integrated with a mobile telephone, allowing consumers to use them in much the same manner as their home computers. Smartphones are replacing feature phones. Nearly half of all wireless phones sold in 2011 were

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<sup>1</sup> NTIA, Notice for Proposed Rulemaking, "Relocation of and Spectrum Sharing by Federal Government Stations – Technical Panel and Dispute Resolution Board," Docket No. 110627357-2209-03 (NPRM)

<sup>2</sup> See, Middle Class Tax Relief and Jobs Creation Act of 2012 (Spectrum Act), Pub. L. No. 112-96, sections 6701-6703, 126 Stat. 245 (Feb. 22, 2012) (amending, among other provisions, sections 113(g)-(i) and 118 of the NTIA Organization Act).

smartphones, a share that is expected to increase to more than two-thirds by 2015. Spending on data services will overtake the voice services market in 2013, and by 2015, data services will be 89 percent greater than voice services.<sup>3</sup> The growth in the smartphone universe is straining available wireless spectrum. T-Mobile reports that users of its G1 Android™ phone download 50 times as much data as the average T-Mobile subscriber.<sup>4</sup> Innovation and growth have also gone well beyond the smartphones. Demand for bandwidth consuming devices such as netbooks and tablets are skyrocketing. The market for tablets has experienced dramatic growth as well.<sup>5</sup>

A Commission staff technical paper on mobile broadband analyzed three separate studies, and noted that the average projection for wireless data growth by 2014 was 3,506%.<sup>6</sup> The Commission also has noted that the number of wireless transmitters authorized *annually* has increased fourfold in the last 10 years, and that the number of devices with three or more transmitters has grown by 700% since 2008.<sup>7</sup> This growth, fueled by consumer demand, cannot be sustained without adequate spectrum. As Chairman Genachowski has aptly stated: “Spectrum is the oxygen of our mobile networks. . . . In fact, I believe that the biggest threat to the future of mobile in America is the looming spectrum crisis.”<sup>8</sup>

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<sup>3</sup> See 2012 TIA Market Review & Forecast (“TIA Market Review”) at 4-2.

<sup>4</sup> See 2012 TIA Market Review & Forecast (“TIA Market Review”) at 1-42.

<sup>5</sup> See Steven M. Sears, *A Research in Motion Tablet Play*, Barron’s (Feb. 23, 2011) available at [http://online.barrons.com/article/SB50001424052970204395804576162343528105956.html?mod=BOL\\_da\\_spd](http://online.barrons.com/article/SB50001424052970204395804576162343528105956.html?mod=BOL_da_spd).

<sup>6</sup> *Mobile Broadband: The Benefits of Additional Spectrum*, OBI Technical Paper Series, Federal Communications Commission (Oct. 2010) at 18, available at <http://download.broadband.gov/plan/fcc-staff-technical-paper-mobilebroadband-benefits-of-additional-spectrum.pdf>.

<sup>7</sup> *From the FCC Lab: Report on Trends in Wireless Devices*, Federal Communications Commission (Jan. 2011), available at <http://www.fcc.gov/oet/info/documents/reports/wirelessdevices.pdf>.

<sup>8</sup> Julius Genachowski, Chairman, Federal Communications Commission, Remarks at CTIA Wireless IT & Entertainment: America’s Mobile Broadband Future, 1-2 (Oct. 7, 2009) (“Chairman Genachowski CTIA Remarks”).

Spectrum users continue to benefit from spectral efficiency improvements. As noted by “Cooper Law,” a doubling of spectrum information capacity occurs every 30 months.<sup>9</sup> Consequently legacy spectrum holders have the technical opportunity to satisfy their existing uses with less spectrum. While technological innovation allows current uses to do more with less, it also produces new uses with new demands.

### *B. REPURPOSING SPECTRUM BENEFITS THE ECONOMY*

Repurposing spectrum to wireless broadband will not only satisfy consumer demands, but will also net significant economic benefits. Past efforts to make spectrum available for wireless services reflect the job-creating potential of repurposing spectrum. Spectrum reallocations between 1994 and 2000 led to a 250% increase in investment and a 300% increase in jobs in the mobile market.<sup>10</sup> It also has been noted that a mere 1% increase in broadband deployment could mean the creation of as many as 300,000 new jobs.<sup>11</sup> Further, it has been estimated that new wireless broadband investments of \$17.4 billion will increase U.S. gross domestic product

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<sup>9</sup> See, “Cooper’s Law”. Chicago, IL 60089, USA: ArrayComm LLC. Archived from [the original](#) on 2011-07-20. Retrieved 2012-01-26. “A more interesting way to look at the improvement in the way we use the spectrum is to compare the number of “conversations” (voice or data) that can theoretically be conducted over a given area in all of the useful radio spectrum. It turns out that this number has doubled every two-and-a-half years for the past 104 years. This observation was made by Martin Cooper, Chairman Emeritus of ArrayComm, and is dubbed “Cooper’s Law.”” <http://www.arraycomm.com/technology/coopers-law> accessed 7/31/2012

<sup>10</sup> See Wendy Wigen, *Betting on Wireless Broadband Access to Push the U.S. Forward*, available at <http://www.educause.edu/blog/wwigen/BettingonWirelessBroadbandAcce/207128>.

<sup>11</sup> See Brookings Institute, *The Effects of Broadband Deployment on Output and Employment: A Cross-sectional Analysis of U.S. Data* at 2, 12 (July 2007) available at <http://www.brookings.edu/views/papers/crandall/200706litan.pdf>.

(GDP) by between \$126.3 billion and \$184.1 billion and create between 4.5 million and 6.3 million jobs within twenty-four months of making the investment.<sup>12</sup> Such investments, and associated GDP and job growth, would be facilitated by the repurposing of spectrum for wireless broadband. It has been forecasted that accelerated deployment of wireless broadband technologies and applications will generate productivity gains of almost \$860 billion by 2016.<sup>13</sup>

NTIA's challenge is balancing the dividends associated increased spectral efficiency with these rapidly expanding demands for spectrum for new uses.

## II. PANEL COMPOSITION

TIA appreciates the unique challenges NTIA faces in establishing dispute resolution boards in compliance with the accelerated deadlines set forth by the new law. NTIA should encourage participation from representatives with both the necessary expertise to perform their duties, but also who can remain impartial when resolving disputes between Federal and non-Federal parties. In light of these challenges, and in response to the question raised by the agency, it may be appropriate to use the same members on both the Technical Panel and the Dispute

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<sup>12</sup> See Alan Pearce and Michael S. Pagano, *Accelerated Wireless Broadband Infrastructure Deployment: The Impact on GDP and Employment*, New York Law School, Media Law and Policy Law Journal, vol. 18 at 11-12 (Spring 2009) available at [http://www.nyls.edu/user\\_files/1/3/4/30/84/187/245/Pearce%20&%20Pagano,%20SPRING%202009%20&%20Pagano.%2018%20MEDIA%20L.%20&%20POL%E2%80%99Y.pdf](http://www.nyls.edu/user_files/1/3/4/30/84/187/245/Pearce%20&%20Pagano,%20SPRING%202009%20&%20Pagano.%2018%20MEDIA%20L.%20&%20POL%E2%80%99Y.pdf).

<sup>13</sup> Roger Entner, *The Increasingly Important Impact of Wireless Broadband Technology and Services on the U.S. Economy* at 4 (2008), available at [http://files.ctia.org/pdf/Final\\_OvumEconomicImpact\\_Report\\_5\\_21\\_08.pdf](http://files.ctia.org/pdf/Final_OvumEconomicImpact_Report_5_21_08.pdf) ("Entner Paper").

Resolution panel.<sup>14</sup> The more important consideration is that NTIA draw upon members with the appropriate expertise.

Additional minimal requirements not contained in the law, such as having a security clearance, seems a highly advantageous characteristic. TIA cautions against additional requirements that may unnecessarily narrow the universe of eligible representatives and exclude otherwise qualified representatives. Given the accelerated deadlines for establishing the dispute resolution boards, it would benefit NTIA to have a larger pool of potential representatives.

### **III. REVIEW OF TRANSITION PLANS**

The Middle Class Tax Relief and Job Creation Act of 2012 amended the Commercial Spectrum Enhancement Act (CSEA) to provide additional incentives for Federal users of spectrum.<sup>15</sup> The underlying intent for these acts is to promote the most efficient use of available spectrum. The Spectrum Act's language mandates a strict timeline for the review of transition plans.<sup>16</sup> The allocation of spectrum is a time sensitive process because of this strict tight deadline. As noted in its notice, NTIA must be able to fulfill its requirements under the deadlines even if the applying Federal entity's plan is deemed insufficient.<sup>17</sup>

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<sup>14</sup> See, NPRM, 10-11

<sup>15</sup> Commercial Spectrum Enhancement Act (CSEA), Pub. L. No. 108-494, sections 201-209, 118 Stat. 3986 (codified at 47 U.S.C. 923, 928).

<sup>16</sup> See Spectrum Act, Sec. 301.120

<sup>17</sup> See, NPRM, 12

The Technical Panel must have sufficient information with which to make a determination in a timely manner in order to meet the strict deadlines imposed by the statute. Any measure which would confine the scope and content of the panel's reports could hinder this process and force a decision on the sufficiency of the transition plan based on incomplete information. These plans should be detailed in their requirements so that purchasing parties can be assured of the capabilities of the spectrum being shared or auctioned. An incomplete transition plan could otherwise create a situation where the spectrum being auctioned is not capable of its intended use and leave the purchaser having paid for spectrum it cannot use.

The Spectrum Act does not direct the panel to develop a transition plan, only review provided transition plans for sufficiency.<sup>18</sup> Any insufficiency finding would not substantially impact or impair NTIA's ability to meet the deadlines imposed by the statute. If an entity's transition plan is insufficient, the entity would bear the risk of any consequences that should follow, including being ineligible for funds from the Spectrum Relocation Fund. Any unreasonable delay in the form of non-responsive submissions by an agency should be addressed at appropriate levels within the government to assure compliance with the clear statutory mandate.

#### **IV. NON FEDERAL USERS**

As NTIA points out, the statute provides that either a "Federal entity" or "non-Federal user" engaged in a dispute over the Federal entity's Transition Plan may request the

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<sup>18</sup> See, NPRM, 11-13

establishment of a dispute resolution board. However, as also pointed out by NTIA, there is no statutory definition of “non-Federal user.”

With the lack of a statutory definition, NTIA proposes two definitions for “non-Federal user.” First, NTIA proposes to define this term as “a Commission licensee authorized to use eligible frequencies or a winning bidder in a Commission auction for eligible frequencies that has fulfilled the Commission’s requirements for filing a long-form license application and remitting its final bid payment.”<sup>19</sup> Alternatively, NTIA also proposes the slightly looser requirement that any non-Federal party bringing a dispute must only clearly demonstrate that the entity is a winning bidder at an FCC auction involving the frequencies at issue in the dispute.<sup>20</sup>

While NTIA has correctly noted that the term ‘non-Federal user’ is not defined, NTIA’s proposed definitions are far too narrow. On its face, the only limiting characteristic of a “non-Federal user” is that it cannot include Federal entities. NTIA’s proposed narrow definitions would, for example, exclude non-licensed spectrum users who want to participate. Non-licensed users are significant stakeholders in the process and should not be denied access to the process. TIA argues that any party with interest should be able to participate in the process as a non-Federal user and should have the ability to raise the issues it may have.

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<sup>19</sup> See, NPRM, 15

<sup>20</sup> See, NPRM, 16

## V. DISPUTE RESOLUTION PROCESS

NTIA proposes a “streamlined, practical approach to process legitimate dispute resolution requests . . . and to facilitate the resolution of any dispute as quickly as possible.”<sup>21</sup> The accelerated deadlines set forth in the new law require NTIA to establish dispute resolution boards quickly, in order to make a recommendation not later than 30 days after the request was made.

NTIA stresses that the new law does not confer independent authority on the board to bind the parties, and therefore proposes that the board’s decision take the form of specific written recommendations to NTIA, OMB, the Commission, or the parties to take the suitable steps or remedial actions related to the execution, timing, or cost of the Federal entity’s transition plan.

TIA supports the use of the alternative dispute resolution process. However, TIA argues that in appropriate situations, parties should be encouraged to use binding arbitration, rather than the written recommendations proposed by NTIA. TIA’s proposal of binding arbitration, when appropriate, is consistent with the spectrum laws’ intent to provide for speedy resolution of disputes. Binding arbitration would ensure execution of the ‘streamlined, practical’ approach that NTIA proposes.

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<sup>21</sup> See, NPRM, 15

## **VI. CONCLUSION**

TIA recognizes the unique expertise of NTIA in facilitating the allocation process of a Spectrum transition. We note that this transition has been identified as imperative to national policy. For the foregoing reasons, TIA urges NTIA to take into consideration its views in this proceeding.

Respectfully submitted,

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