

**Acquisition of T-Mobile USA, Inc.
by AT&T Inc.**

**Description of Transaction,
Public Interest Showing and
Related Demonstrations**

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ATTACHMENTS:

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Declaration of John Donovan

Declaration of William Hogg

Declaration of Rick L. Moore

Declaration of Thorsten Langheim

Declaration of Kim Kylesbech Larsen

Declaration of Dennis W. Carlton, Allan Shampine, and Hal Sider

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INTRODUCTION AND SUMMARY

In this transaction, AT&T Inc.—an American company on the leading edge of mobile broadband innovation—is acquiring T-Mobile USA, a Deutsche Telekom subsidiary with declining market shares and no clear path to Long Term Evolution (LTE), the gold standard for advanced mobile broadband services.

AT&T faces network spectrum and capacity constraints more severe than those of any other wireless provider, and this merger provides by far the surest, fastest, and most efficient solution to that challenge. The network synergies of this transaction will free up new capacity—the functional equivalent of new spectrum—in the many urban, suburban, and rural wireless markets where escalating broadband usage is fast consuming existing capacity. This transaction will thus benefit consumers by reducing the number of dropped and blocked calls, increasing data speeds, and dramatically expanding deployment of next-generation mobile technology. Indeed, the transaction will give the combined company the scale, resources, and spectrum that will enable it to deploy LTE to more than 97 percent of Americans—approximately 55 million more Americans than under AT&T’s current plans. That deployment will help fulfill this Administration’s pledge to “connect[] every part of America to the digital age,”¹ and it will create new jobs and economic growth in the small towns and rural communities that need them most. This transaction will leave the wireless marketplace fiercely competitive; indeed, AT&T’s massive LTE deployment will intensify broadband competition throughout the United States. Finally, the transaction will promote America’s global leadership in mobile broadband innovation.

¹ Barack Obama, *State of the Union Address* (Jan. 25, 2011), <http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address> (“*Obama 2011 State of the Union Address*”).

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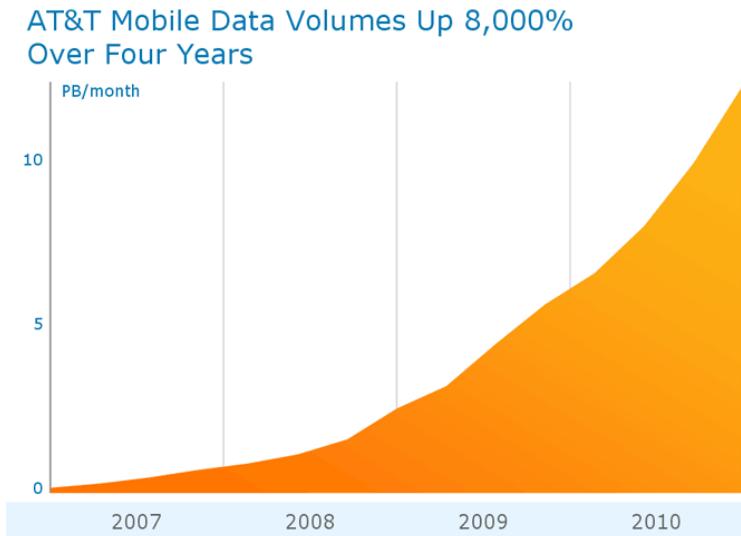
* * *

AT&T has helped lead America's mobile broadband revolution for many years, achieving network-technology breakthroughs at AT&T Labs and then pioneering their deployment to consumers. AT&T introduced the first widely adopted smartphone—Apple's iPhone—in 2007. It now offers a wide-ranging portfolio of mobile broadband devices, including the second-generation iPad and other tablet computers; a variety of netbooks, eReaders, and machine-to-machine (M2M) offerings; and a host of smartphones running on different operating systems, such as Google's Android, Microsoft's Windows, Apple's iOS, and RIM's Blackberry, among others. According to a leading market research firm, AT&T's subscribers owned more than **[Begin Confidential Information]** **[End Confidential Information]** percent of the nation's smartphones at the end of 2010, by far the highest percentage among all U.S. wireless providers.² AT&T's pioneering initiatives have helped convert mobile broadband from a niche product into a transformative engine of innovation, growth, and consumer empowerment. And they have helped make the United States the global leader in mobile broadband subscriptions and smartphone sales.

AT&T's mobile broadband leadership, however, now presents it with unique spectrum and capacity challenges. A smartphone generates 24 times the mobile data traffic of a conventional wireless phone,³ and the explosively popular iPad and similar tablet devices can generate traffic comparable to or even greater than a smartphone. AT&T's mobile data volumes thus surged by a staggering 8000% from 2007 to 2010:

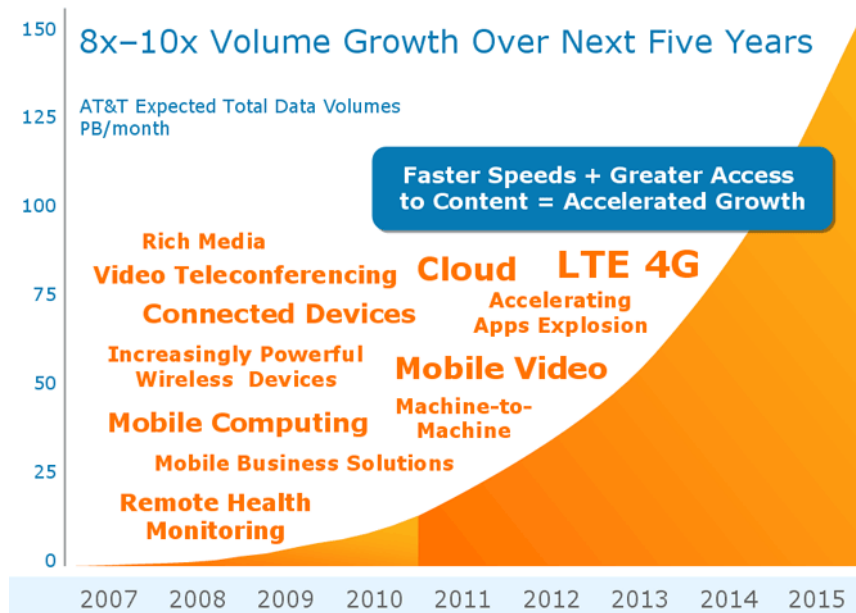
² The Nielsen Company, *Carrier Share of Smartphone Subscribers – Q4 2010*.

³ FCC Fact Sheet, *Spectrum: American Competitiveness, Opportunity, Dollars and the Cost Of Delay* (Mar. 22, 2011), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0322/DOC-305309A2.pdf (“*FCC Fact Sheet*”).



AT&T has worked tirelessly to address this data explosion through a wide variety of means. For example, it has purchased spectrum on the open market when available and has added thousands of cell sites and additional backhaul capacity to its network grid. AT&T has also deployed distributed antenna systems, 24,000 Wi-Fi hotspots across the country, and Wi-Fi Hotzones in heavy usage areas—such as Chicago’s Wrigleyville, New York’s Times Square, and others—to off-load traffic from its mobile network. All told, AT&T invested \$21.1 billion in capital expenditures to upgrade its wireless network between 2008 and 2010.

These types of measures, however, are increasingly inadequate solutions to AT&T’s growing capacity constraints. AT&T is using up its spectrum at an accelerating rate, and the wireless broadband revolution is just beginning. Over the next five years, data usage on AT&T’s network is projected to skyrocket by a factor of eight to ten as customers “mobilize” all of their communications activities, from streaming HD video and cloud computing to a range of M2M applications like energy management, fleet tracking, and remote health monitoring:



Put differently, in just the first *five to seven weeks* of 2015, AT&T expects to carry all of the mobile traffic volume it carried during 2010.

In short, AT&T faces severe capacity constraints and cannot simply wait for the next major auction to resolve them. For example, AT&T expects that, by **[Begin Confidential Information]** **[End Confidential Information]**, it would have insufficient capacity to handle the expected traffic demand for its UMTS services in approximately **[Begin Confidential Information]** **[End Confidential Information]** cellular market areas (“CMAs”) covering **[Begin Confidential Information]** **[End Confidential Information]** people.⁴

These include large cities such as **[Begin Confidential Information]**

[End Confidential Information], as well as

smaller towns and rural areas such as **[Begin Confidential Information]**

[End Confidential Information].

⁴ As discussed below, Universal Mobile Telephone System (“UMTS”) is a wireless technology that supports both voice and mobile broadband services; Global System for Mobile (“GSM”) is an earlier second-generation technology.

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In [Begin Confidential Information] [End Confidential Information] additional markets, AT&T does not have enough spectrum today even to launch and support UMTS service, and thus it can offer only 2G GSM service to the more than [Begin Confidential Information]

[End Confidential Information] people in those markets. In many markets where T-Mobile USA has spectrum, AT&T's capacity constraints also prevent it from dedicating enough spectrum to launch LTE, deploy it optimally, or meet expected demand. For example, in approximately [Begin Confidential Information] [End Confidential Information] CMAs covering about [Begin Confidential Information] [End Confidential Information] people, AT&T lacks spectrum to deploy LTE at all. Within another approximately [Begin Confidential Information] [End Confidential Information] CMAs, covering nearly [Begin Confidential Information] [End Confidential Information] people in large cities and small towns alike, AT&T cannot deploy LTE with the contiguous 20 MHz of spectrum needed for improved speed and spectral efficiency. And AT&T estimates that it is likely to face LTE capacity constraints as early as [Begin Confidential Information] [End Confidential Information] in certain major markets.

T-Mobile USA likewise faces capacity constraints in a number of key markets. It also has no clear path to deploy LTE services because it has already dedicated its spectrum resources to today's less spectrally efficient technologies. T-Mobile USA also faces new questions about its long-term capital support, in part because its parent company, Deutsche Telekom, must dedicate significant capital resources to broadband deployment in Germany and the rest of Europe. Indeed, Deutsche Telekom recently announced that, in light of its capital constraints, T-

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Mobile USA can no longer rely on its parent for investment funding and must instead “fund its future itself.”⁵

From a consumer’s perspective, the capacity constraints confronting these companies, if unaddressed, would translate into more dropped and blocked calls, slower speeds, and access to fewer and less advanced applications. More generally, these capacity constraints could hinder innovation in America’s mobile broadband ecosystem. As Chairman Genachowski has observed, “[i]f we do nothing in the face of the looming spectrum crunch, many consumers will face higher prices—as the market is forced to respond to supply and demand—and frustrating service—connections that drop, apps that run unreliably or too slowly. The result will be downward pressure on consumer use of wireless service, and a slowing down of innovation and investment in the space.”⁶ These consumer harms, moreover, “would . . . have a disproportionate impact on minority and low-income groups who are more likely than the average American to access the Internet through a mobile device.”⁷ “[T]he only thing that can address the growing overall demand for mobile,” the Chairman more recently added, “is increasing the overall supply of spectrum and the efficiency of its use.”⁸

⁵ Transcript of Briefing by Deutsche Telekom and T-Mobile to Analysts, at 4 (Jan. 20, 2011) (Deutsche Telekom CEO Rene Obermann), http://www.telecom.de/dtag/cms/contentblob/dt/en/979218/blobBinary/transcript_20012011.pdf (“*Jan. 20, 2011 DT Analyst Briefing*”); Declaration of Thorsten Langheim, Senior Vice President Mergers and Acquisitions, Deutsche Telekom AG, at ¶ 14 (April 20, 2011) (“Langheim Decl.”) (attached).

⁶ Remarks of FCC Chairman Julius Genachowski, CTIA Wireless 2011, at 9 (Mar. 22, 2011), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305309A1.pdf (“*Genachowski CTIA Remarks*”).

⁷ *Id.*

⁸ Remarks of FCC Chairman Julius Genachowski, NAB Show 2011, at 4 (Apr. 12, 2011), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0412/DOC-305708A1.pdf.

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This transaction helps meet that national objective. Although it will not literally increase “the overall supply of spectrum,” it will dramatically increase the efficiency of its use, and those efficiency gains are the functional equivalent of creating new spectrum. In this manner, the transaction will provide by far the fastest, most efficient, and most certain solution to each applicant’s capacity challenges, while creating significant benefits for consumers and the marketplace as a whole. It will improve service quality and create a robust, ubiquitous, and state-of-the-art wireless broadband platform. It will enable the combined company to compete far more effectively than either company could alone, while fueling the wireless broadband revolution at the heart of this Administration’s goals.

These benefits arise from the uniquely complementary nature of AT&T and T-Mobile USA. Unlike other major U.S. wireless providers, AT&T and T-Mobile USA both use GSM and UMTS/HSPA+ technologies. Their common use of those technologies, together with their complementary spectrum holdings and well-matched cell-site grids, will produce immense synergies. As a result of these synergies, the integration of these two networks will far exceed the sum of its parts, creating substantially more capacity than the two companies could produce individually.

This increased capacity will give the combined company the flexibility it needs, on a market-by-market basis, to improve service quality, free up spectrum for more spectrally efficient technologies such as LTE, or both. These benefits could not be obtained nearly as fully or quickly through any alternative to this transaction. These transaction-specific benefits include:

- *Efficiencies from unique cell-site complementarities.* The combined company expects to integrate more than **[Begin Confidential Information]** **[End Confidential Information]** T-Mobile USA cell sites into the AT&T network. Upon network

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integration, this will equate to “instant” cell splits—increasing cell density and effectively doubling the amount of network traffic that can be carried using existing spectrum in the areas served by those cell sites. This network integration will start immediately after closing, can be targeted initially to areas with the greatest capacity needs, and is expected to be completed within twenty-four months, with service improvements in areas of various markets in as little as nine months. AT&T could accomplish nothing comparable absent this merger. In practical terms, the integration of these two infrastructures will mean fewer dropped and blocked calls and a better mobile Internet experience for consumers.

- *Repurposing of Redundant Control Channels.* Each company now devotes substantial spectrum to “control channels” for its GSM services. The transaction will enable the combined company to eliminate redundant control channels and promptly free up 4.8 to 10 MHz of extra spectrum, depending on the market.
- *Channel Pooling Efficiencies.* This transaction will enable the two networks to group their respective GSM spectrum channels into larger pools (as well as the UMTS spectrum channels as they are integrated over time). Because larger pools increase the statistical probability of obtaining an open channel, the transaction will enable the combined network to serve more subscriber traffic with the same aggregate spectrum than the two could serve independently. By analogy, an airport can serve more customers more quickly if it creates one ticket counter with four ticket agents rather than two counters with two agents apiece. This efficiency alone is expected to increase GSM capacity by as much as 15 percent in some areas and, among other benefits, will reduce the number of blocked calls.
- *Utilization Efficiencies.* The combined company will be able to make more efficient use of “spare” capacity in areas where one or both companies’ networks are underutilized, driving improvements in both performance and capacity in those areas. For example, if AT&T’s GSM network is congested in a market, while T-Mobile USA’s is underutilized, the combined company could use spectrum in the underutilized network to relieve that congestion. Alternatively, if AT&T is facing congestion in its UMTS network but not its GSM network, then a portion of T-Mobile USA’s GSM spectrum could be redeployed to relieve that congestion and provide for more spectrally efficient UMTS services.
- *Broader deployment of more spectrally efficient LTE technologies.* The transaction will accelerate the transition to more spectrally efficient LTE technologies for more subscribers, thereby increasing network capacity and more efficiently using scarce spectrum resources. Over time, the transaction will enable the combined company to transition T-Mobile USA’s HSPA services off of its AWS spectrum in many markets and devote that spectrum to the deployment of LTE services that are 30 to 40 percent more spectrally efficient. In addition, T-Mobile USA’s AWS spectrum covers approximately **[Begin Confidential Information]** **[End Confidential Information]** additional people in areas where AT&T lacks sufficient 700 MHz or AWS spectrum to

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deploy LTE, allowing the combined company to roll out that technology more broadly than AT&T could alone.

AT&T estimates that these efficiencies, in combination, will push back the date of expected spectrum exhaust in many markets, particularly in its constrained markets. With this additional time, the company expects to be able to address continuing capacity needs through the ramping down of GSM networks, the fuller deployment of efficient, capacity-increasing LTE technologies, and new spectrum available at auction. More generally, the consolidation of these two companies is projected to produce operational savings and other cost synergies exceeding \$39 billion, with annual savings of approximately \$3 billion starting in year three.

All of these efficiencies will benefit both companies' current and future customers. For example, by alleviating capacity constraints, this transaction will enable AT&T to enhance service quality for its GSM and UMTS customers, reducing the number of blocked and dropped calls, increasing data speeds, and providing more consistent and reliable service. Moreover, this transaction will give AT&T the capacity it needs to serve more customers in more markets with UMTS and fully optimized LTE than it would otherwise. This transaction will also give T-Mobile USA's 34 million customers access to LTE services that will surpass T-Mobile USA's current services in performance and network efficiency. In addition, T-Mobile USA's customers will have greatly expanded in-home and rural coverage and rapid access to a broader device portfolio. And, as in AT&T's prior acquisitions, consumers will have the option to keep their current T-Mobile USA pricing plans for existing services.

In short, this transaction is the most *pro-consumer* solution to the critical capacity challenges facing these two companies. It is also the most *pro-innovation* and *pro-investment* solution for America. The network and spectrum synergies unleashed by this transaction will

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enable AT&T to continue fostering wireless innovation and supporting the virtuous cycle of investment and innovation needed to fuel advances in the mobile broadband ecosystem. And this transaction gives AT&T the scale, spectrum and resources that will enable it to deploy LTE to more than 97 percent of Americans, many of them in the rural areas and small towns most in need of greater broadband deployment and economic development.⁹

The long-term benefits of such infrastructure investment are immense. As Lawrence Summers, then head of the President’s National Economic Council, explained in 2010, “[e]ach dollar invested in wireless deployment is estimated to result in as much as \$7 to \$10 higher GDP,” and as wireless investment grows, “the benefits for job creation and job improvement are likely to be substantial.”¹⁰ In addition, because AT&T is the only major wireless company that is unionized, this transaction will bring jobs with union wages and benefits.¹¹ And the expansion of LTE’s state-of-the-art broadband performance will help fill gaps in the availability of cutting-edge medical, education, and other services in rural areas and small towns. Because this transaction will produce these larger social benefits, groups from across the political spectrum,

⁹ When the parties announced this transaction in March 2011, AT&T initially stated that it would deploy LTE to 95 percent of the U.S. population. AT&T has now conducted a more refined analysis of the scope and capabilities of the combined network and identified T-Mobile USA and AT&T cell sites that it had not previously counted on for LTE expansion, but that will allow the expansion of LTE into areas not previously included. The parties are thus now increasing the scope of this commitment to more than 97.3%.

¹⁰ Remarks of Lawrence H. Summers, New America Foundation, *Technological Opportunities, Job Creation, and Economic Growth* (June 28, 2010), <http://www.whitehouse.gov/administration/eop/nec/speeches/technological-opportunities-job-creation-economic-growth> (“*Summers Remarks*”).

¹¹ AT&T remains the only large wireless company in the U.S. with a voluntary recognition and card check agreement, which allows eligible employees to choose whether to be represented by the CWA. AT&T remains neutral in organizing drives and voluntarily recognizes the CWA when a majority of workers sign union authorization cards. Under this process, CWA has now organized more than 41,000 AT&T Mobility employees, including those following mergers with AT&T Wireless, BellSouth, Dobson, and Centennial.

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including the Communications Workers of America, the AFL-CIO, the NAACP, the Hispanic Institute, the American Foundation for the Blind, and a broad range of other consumer, civil rights, and rural advocacy groups, have highlighted the transaction’s potential to empower consumers, workers, and small businesses to participate more fully in our nation’s broadband society.

As discussed in Section II below, this transaction will also preserve and, indeed, enhance competition. The Commission found last year that approximately three-quarters of Americans live in localities contested by at least five facilities-based wireless providers.¹² And the U.S. wireless marketplace is characterized by escalating usage, product differentiation, rapid innovation, fierce advertising campaigns, new entry, and sharply declining prices for wireless service by unit of consumption (*e.g.*, minutes or megabytes). It will remain every bit as dynamic and competitive after this transaction as before. Indeed, the wireless marketplace will be *more* competitive because this transaction will expand overall output and relieve both AT&T and T-Mobile USA of capacity constraints that, absent this transaction, would reduce their competitive impact. Moreover, because the transaction will enable AT&T to deploy next-generation LTE services to more than 97 percent of Americans, it will give many more consumers a new, robust alternative to *wireline* broadband services across America.

Post-merger, the combined company will continue to face intense competition from the following providers, among others:

- **Verizon Wireless**, now the largest U.S. wireless provider, occupies an exceptionally strong position in all market segments, and it claims unequaled network advantages in the

¹² Fourteenth Report, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, 25 FCC Rcd 11407, 11621-22 ¶¶ 42-45 (May 20, 2010) (“*Fourteenth Wireless Report*”).

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provision of high-end LTE services over its nationwide 22 MHz block of 700 MHz spectrum.

- *Sprint* has reversed its earlier setbacks, added nearly 1.8 million net subscribers in 2010 (for a total of approximately 50 million), and is aggressively implementing Network Vision, a multi-billion-dollar initiative to upgrade its network to supplement existing 4G services. Sprint has already achieved substantial 4G success by offering attractive pricing plans and upgrading its smartphone portfolio with models like the highly successful EVO.
- *MetroPCS* and *Leap* (“Cricket”)—the leading “all you can eat” providers—have signed a long-term mutual roaming agreement, offer nationwide service plans, and now sell service in markets covering more than 200 million Americans. They are growing rapidly and will continue winning consumers with their low-priced service plans after this transaction closes.
 - According to internal AT&T estimates, MetroPCS has won approximately [Begin Confidential Information] [End Confidential Information] of the Miami market and double-digit shares in other major cities, and its subscriber share now exceeds T-Mobile USA’s in a number of key markets, including [Begin Confidential Information] [End Confidential Information]. MetroPCS recently launched the nation’s first commercially available LTE smartphone for its new 4G LTE network, thereby targeting higher-end consumers in addition to its established base of value-conscious customers.
 - Meanwhile, Leap added hundreds of thousands of new subscribers in 2010 and has achieved substantial shares in a number of metropolitan areas. Although it has long focused on value-oriented voice services, it too has branched out into broadband services, and smartphones now account for 40% of Leap’s handset sales. In March 2011, Leap expanded its LTE deployment plans by reaching a major spectrum arrangement with LightSquared.
- *U.S. Cellular* is a leading provider of nationwide service in 26 states and now has more than six million customers. According to AT&T’s estimates, U.S. Cellular has strong double-digit shares in many markets, including [Begin Confidential Information] [End Confidential Information].
- A number of other providers also offer nationwide wireless service plans with marked success. These include, among the others discussed below, *Cellular South*, which serves about 880,000 customers and plans to launch LTE service by the end of this year; *Cincinnati Bell Wireless*, which serves southwestern Ohio and [Begin Confidential Information] [End Confidential Information]; and *Cox Communications*, which has

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begun aggressively marketing wireless plans to its existing cable subscribers in a growing number of markets.

- ***Clearwire***, owned by a consortium of Sprint, Comcast, Time Warner Cable, Intel, Google, and Bright House Networks, is the nation’s largest holder of spectrum. Using spectrum in the 2.5-2.6 GHz bands, Clearwire is both a retailer of 4G data services (under the “Clear” brand), with more than a million retail customers, and a supplier of wholesale inputs to 4G WiMAX retail providers such as Sprint, Time Warner Cable, and Comcast. In March 2011, it signed a wholesale agreement with Best Buy, which will use Clearwire spectrum to offer its “Best Buy Connect” MVNO services at its retail stores throughout America. Clearwire is also conducting LTE trials, which, according to CTO John Saw, have yielded “mind blowing” results.¹³
- ***LightSquared***, a spectrum-rich and well-capitalized wireless entrant, plans to deploy a 4G LTE network covering 100 million people by the end of 2012 and 260 million by the end of 2015. It recently announced major wholesale arrangements with Best Buy, rural broadband provider Open Range, and Leap, which, as discussed, will use LightSquared spectrum to help roll out its LTE services.

T-Mobile USA’s network and spectrum resources will add substantial value to this highly competitive marketplace when they are combined with AT&T’s network and spectrum resources to produce the output-enhancing synergies discussed in this submission. As a standalone company, however, T-Mobile USA would continue to face substantial commercial and spectrum-related challenges. It confronts increased competition from industry mavericks such as MetroPCS, Leap, and others; its percentage of U.S. subscribers has been falling for nearly two years; and it has no clear path to LTE.

T-Mobile USA’s absence from the marketplace will not have a significant competitive impact, particularly vis-à-vis AT&T. AT&T is more focused on Verizon and Sprint than on T-Mobile USA, and AT&T too is seeing increased competitive threats from rapidly growing mavericks like MetroPCS and Leap and other providers. These other competitors can quickly replace the diminished market role T-Mobile USA plays today—and indeed have already begun

¹³ Karl Bode, *Clearwire: LTE Trial Results ‘Mind Blowing’*, DSL Reports (Mar. 23, 2011), <http://www.dslreports.com/shownews/Clearwire-LTE-Trial-Results-Mind-Blowing-113342>.

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to do so. More generally, this transaction will promote the core objectives of sound competition policy by alleviating the applicants' capacity constraints and thereby generating greater output and more competitive prices.

Finally, the Commission should view this transaction in its international context when assessing both its competitive significance and its importance to American innovation. As the Commission has observed, the U.S. wireless marketplace is substantially less concentrated than its counterparts in other industrialized nations.¹⁴ The Commission would disserve American consumers if it imposed artificial constraints on network scale and efficiency not seen elsewhere in the world, thereby ultimately consigning the U.S. marketplace to a collection of spectrum-starved providers. That outcome would risk degrading service for millions of American consumers, undermining the virtuous cycle of mobile broadband innovation, and imperiling U.S. technological leadership.

In sum, this transaction will be good for consumers, for workers, for the economy, and for the companies involved. It is needed to alleviate serious capacity challenges on the two parties' networks; to enable the combined company to deploy LTE to more than 97 percent of Americans; to derive the greatest value for consumers from T-Mobile USA's existing resources; and to keep America on the cutting edge of wireless broadband technologies. The transaction should be promptly approved.

¹⁴ *Fourteenth Wireless Report*, 25 FCC Rcd at 11621-22 ¶¶ 364-67.

DESCRIPTION OF THE APPLICANTS AND THE TRANSACTION

A. The Applicants

AT&T is a leading provider in the United States of wireless, Wi-Fi, high-speed Internet, local and long distance voice, mobile broadband, and advanced TV services.¹⁵ It also provides worldwide wireless coverage and IP-based business communications services. Headquartered in Dallas, Texas, AT&T is the only large U.S. wireless carrier that is unionized.

Deutsche Telekom AG (DT), based in Bonn, Germany, is one of the world's leading telecommunications companies with operations in about 50 countries. The Federal Republic of Germany holds approximately a direct 15% interest in DT. KfW, a development bank that is 80% owned by the Federal Republic of Germany and 20% owned by the German federal states, owns approximately a 17% interest in DT. DT's core businesses, which require substantial capital investments in their own right, involve the provision of fixed broadband and wireless services in Germany and throughout much of the rest of Europe. *See* Langheim Decl. ¶ 7.

T-Mobile USA, a wholly owned subsidiary of DT, is headquartered in Bellevue, Washington and offers nationwide wireless voice and data services to residential and business customers.

¹⁵ AT&T Mobility LLC, which operates AT&T's wireless network, is the successor to Cingular Wireless and is a wholly owned subsidiary of AT&T Inc. For ease of exposition for present purposes, the term "AT&T" is generally used here to refer to AT&T Mobility LLC or other wholly-owned subsidiaries of AT&T Inc. Nonetheless, AT&T Inc. is the AT&T applicant in this proceeding and, as noted below, is the corporate entity acquiring T-Mobile USA.

B. Qualifications

The Commission has concluded repeatedly that AT&T has the necessary qualifications required by the Communications Act, and nothing has changed to disturb this conclusion.¹⁶ The Commission has likewise concluded that T-Mobile USA has the requisite character and qualifications to hold Commission authorizations.¹⁷

C. Nature of the Transaction

AT&T Inc. has agreed to acquire from DT all of the stock of T-Mobile USA on a debt-free basis. The total consideration will be \$39 billion. That amount will include a cash payment of \$25 billion with the balance to be paid using AT&T common stock, subject to adjustment. AT&T has the right to increase the cash portion of the purchase price by up to \$4.2 billion with a corresponding reduction in the stock component, so long as DT receives at least a 5 percent equity ownership interest in AT&T. If AT&T makes no adjustments, DT will hold approximately 8 percent of AT&T stock at the transaction's close. The number of AT&T shares issued will be based on the AT&T share price during a 30-trading-day period prior to closing, subject to a 7.5 percent collar that was determined at signing. The cash portion of the purchase price will be financed with new debt and cash on AT&T's balance sheet. AT&T has an 18-month commitment for a one-year unsecured bridge term facility with various banks for up to \$20 billion. AT&T assumes no debt from T-Mobile USA or DT.

¹⁶ See Memorandum Opinion and Order, *Applications of AT&T Inc. and Cellco Partnership d/b/a Verizon Wireless*, 25 FCC Rcd 8704, 8720 ¶ 29 (2010) (“AT&T/Verizon Order”); Memorandum Opinion and Order, *Applications of AT&T Inc. and Centennial Communic’ns Corp.*, 24 FCC Rcd 13915, 13931 ¶ 33 (2009) (“AT&T/Centennial Order”).

¹⁷ See Memorandum Opinion and Order, *Applications of T-Mobile USA, Inc. and Suncom Wireless Holdings, Inc. for Consent to Transfer Control of Licenses and Authorizations*, 23 FCC Rcd 2515, 2519-20 ¶ 10 (2008).

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Under the terms of the parties' Stockholder's Agreement, DT will have the right to nominate one director for election to the AT&T board so long as it owns 5% or more of AT&T's voting stock.¹⁸ DT will not be permitted to transfer any stock for the first 12 months after the closing. Sales in any calendar year, other than in a registered offering, will be limited. DT will have demand and piggyback registration rights. But DT will have no special voting rights or other indicia of control. In addition, the Stockholder's Agreement has a standstill provision that limits DT's ability to acquire additional AT&T stock.

STANDARD OF REVIEW

In reviewing license-transfer applications, the Commission first assesses whether the proposed transaction complies with the specific provisions of the Communications Act, other applicable statutes, the Commission's rules, and federal communications policy.¹⁹ The Commission then weighs any potential public interest harms of the proposed transaction against the potential public interest benefits. The Applicants need to show by a preponderance of the evidence that the proposed transaction, on balance, serves the public interest.²⁰ The Commission "may not consider whether the public interest, convenience, and necessity might be served by" a transaction involving an entity "other than the proposed transferee."²¹ Moreover, as the

¹⁸ The Agreement specifies that, in some circumstances, DT can retain this right if it owns as little as 2.5% of AT&T's voting stock if AT&T takes actions to dilute DT's share.

¹⁹ 47 U.S.C. § 310(d)

²⁰ See *AT&T/Verizon Order*, 25 FCC Rcd at 8716 ¶ 22; *AT&T/Centennial Order*, 24 FCC Rcd at 13928 ¶ 27.

²¹ 47 U.S.C. § 310(d).

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Commission has repeatedly found, merger proceedings are improper forums for addressing general industry issues that are not specific to the transaction.²²

This transaction does not violate any law or rule, and, for the reasons discussed below, it will strongly promote the public interest.

PUBLIC INTEREST ANALYSIS

I. THE TRANSACTION WILL BENEFIT CONSUMERS AND THE AMERICAN ECONOMY.

This transaction will generate strong and diverse public interest benefits that would not occur but for this transaction. First, as discussed in Section I.A, it will create immense network and spectrum synergies that will alleviate the capacity constraints that the applicants would otherwise be left to address, far less efficiently and effectively, on their own. It will thereby increase capacity, enhance efficiency in the use of scarce spectrum resources, and significantly improve quality of service. This expanded capacity will benefit not only the applicants and their customers, but consumers in general. As Professor Carlton explains, the transaction will increase total industry output and thus produce lower prices than would prevail in the absence of the transaction.²³

Second, as discussed in Section I.B, the transaction will give the combined company the scale, resources, and spectrum it needs to increase its LTE deployment from AT&T's current

²² E.g., *AT&T/Centennial Order*, 24 FCC Rcd at 13972 ¶ 141; Memorandum Opinion and Order and Declaratory Ruling, *Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and De Facto Transfer Leasing Arrangements*, 23 FCC Rcd 17444, 17527-28 ¶ 185 (2008) (“*Verizon/ALLTEL Order*”); Memorandum Opinion and Order, *AT&T, Inc. and BellSouth Corporation Application for Transfer of Control*, 22 FCC Rcd 5662, 5692 ¶ 56 n.154 (2007) (“*AT&T/BellSouth Order*”).

²³ See Declaration of Dennis Carlton, Allan Shampine, and Hal Sider, Compass Lexecon, at ¶¶ 12, 58, 133 (April 20, 2011) (“*Carlton Decl.*”) (attached); see also Section II, *infra*.

plans of 80 percent of Americans to more than 97 percent. That is a transformative benefit because LTE rivals some of today's wireline broadband connections in speed and performance. This initiative will increase jobs and investment, particularly in rural areas, and enhance U.S. global competitiveness and leadership in mobile broadband services. Moreover, the transaction will promote America's global leadership in mobile broadband innovation. Finally, as discussed in Section I.C, the transaction will enhance our country's disaster preparedness and recovery capabilities.

A. The Transaction Will Benefit Customers of Both AT&T and T-Mobile USA by Creating Substantial Synergies, Expanding Output, and Alleviating Severe Capacity Constraints.

AT&T faces network capacity constraints more serious than those of other providers, and this merger provides the surest, fastest, and most efficient solution to that challenge. This section discusses—

- the sources of these capacity constraints, including AT&T's leadership in smartphone services, its customers' escalating data usage, and its need to support multiple generations of technology over limited spectrum bands;
- the practical consequences of those constraints;
- T-Mobile USA's own capacity constraints and lack of a clear path to LTE;
- the many independent ways in which this transaction will alleviate capacity constraints on both parties' networks, expand output, and thereby promote competition and consumer welfare; and
- the relative inefficacy of alternative ad hoc patches to the parties' systemic capacity challenges.

This section then concludes by identifying the tens of billions of dollars in overall cost synergies this transaction is expected to generate.

1. The Mobile Broadband Revolution Is Placing Unprecedented Strains on AT&T’s Network.

As Chairman Genachowski recently observed, “mobile broadband is being adopted faster than any computing platform in history, and could surpass all prior platforms in their potential to drive economic growth and opportunity.”²⁴ Smartphones are exploding in popularity; data-intensive mobile applications are proliferating; consumers are feeding a limitless appetite for streaming video and social networking sites; and cloud-based computing services are fast emerging. Yet that unprecedented adoption rate is placing similarly unprecedented congestion on mobile broadband networks. And that congestion is hitting AT&T’s network sooner and harder than others for two main reasons. First, AT&T has been a key pioneer of mobile broadband technologies and is now on the leading edge of the mobile traffic growth curve. Second, unlike some of its competitors, AT&T must also dedicate substantial spectrum to serve three different generations of technology.

a) AT&T has pioneered the mobile broadband revolution, and its network usage has surged dramatically.

AT&T has long been a leader in wireless innovation, both in developing key network technologies and in forging the commercial relationships needed to launch a wide range of cutting-edge services and devices, including smartphones, e-readers, M2M services, and cloud-based computing.²⁵ For example, AT&T was the first wireless provider to feature a number of innovative devices, from the revolutionary Motorola RAZR in 2004 to the iPhone in 2007 to the iPad in 2010. And this year, AT&T is the first wireless provider to feature the Motorola ATRIX

²⁴ *Genachowski CTIA Remarks* at 5.

²⁵ Declaration of John Donovan, Chief Technology Officer, AT&T Services, Inc., at ¶¶ 4-8 (April 20, 2011) (“Donovan Decl.”) (attached).

4G, the first smartphone to contain dual-core processing technology that can power a laptop via a docking port. All of these devices consume enormous wireless bandwidth. “Smartphones consume 24 times as much data as traditional cell phones,” and they outsold “PCs worldwide—101 million to 92 million in the 4th quarter of 2010.”²⁶ Meanwhile, tablets can consume at least as much data as smartphones, and “[a]nalysts project tablet sales of 55 million worldwide this year.”²⁷

Because of its leadership, AT&T is now on the front end of the mobile broadband traffic growth curve. AT&T has approximately 31 million smartphone users,²⁸ and according to a leading market research firm, its subscribers accounted for more than **[Begin Confidential Information]** **[End Confidential Information]** percent of all U.S. smartphone users at year-end 2010, **[Begin Confidential Information]** **[End Confidential Information]**.²⁹ At the end of 2010, 61 percent of AT&T’s 68.0 million contract subscribers had “integrated devices,” up from 46.8 percent a year earlier.³⁰ And in the fourth quarter of 2010, integrated devices accounted for more than 80 percent of AT&T’s device sales in connection with contract plans. By the end of 2011, AT&T plans to introduce twenty additional devices, including two LTE tablets and additional LTE devices such as smartphones.

²⁶ *FCC Fact Sheet, supra.*

²⁷ *Id.*

²⁸ Declaration of Rick L. Moore, Senior Vice President of Corporate Development, AT&T Inc., at ¶ 17 (April 20, 2011) (“Moore Decl.”) (attached).

²⁹ The Nielsen Company, *Carrier Share of Smartphone Subscribers – Q4 2010*. By comparison, the data show that **[Begin Confidential Information]** **[End Confidential Information]** percent. *Id.*

³⁰ “Integrated devices are handsets with QWERTY or virtual keyboards in addition to voice functionality and are a key driver of wireless data usage.” AT&T 4Q 2010 Investor Briefing, at 4 (Jan. 27, 2011), http://www.att.com/Investor/Financial/Earning_Info/docs/4Q_10_IB_FINAL.pdf.

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The result is extraordinary and accelerating usage on AT&T’s network. AT&T’s mobile data volumes increased *8000 percent* from 2007 to 2010. Donovan Decl. ¶ 41. That growth is expected to continue. By 2015, AT&T estimates that mobile data traffic on its network will reach eight to ten times what it was in 2010. Moore Decl. ¶ 6. Put another way, in just the first five to seven weeks of 2015, AT&T expects to carry *all* of the mobile traffic volume it carried during 2010.

b) AT&T must support three generations of technology over its available spectrum.

While AT&T’s capacity challenges arise largely from exploding data usage on its network, they are exacerbated by AT&T’s need to divide its spectrum portfolio among three different generations of technology—a challenge some of its competitors do not face. *See* Carlton Decl. ¶¶ 9, 34, 76, 106, 116, 120. In particular, even as AT&T begins to deploy LTE services on its AWS and 700 MHz bands, it must continue to support services on the 850 MHz (cellular) and 1900 MHz (PCS) bands for the tens of millions of its customers using two older standards: (1) the 2G GSM standard, and (2) the UMTS standard, enhanced with different types of High Speed Packet Access (“HSPA” and “HSPA+”) technology, which permit increased download and upload speeds.³¹ Significantly, those customers’ handsets, purchased over many years, are designed for particular standards and frequency bands, and they will not work with newer technologies or on other bands. Hogg Decl. ¶ 16 n.4. Thus, a GSM handset cannot be

³¹ Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services, Inc., at ¶¶ 18, 20, 22 (April 20, 2011) (“Hogg Decl.”) (attached). As used below, “UMTS” refers to all forms of that technology, whether enhanced with HSPA or not.

used for UMTS or LTE services, and a UMTS handset cannot be used for LTE services. And none of these embedded handsets can be used for *any* service in the AWS or 700 MHz bands.³²

AT&T will need to continue dedicating much of its spectrum to supporting these legacy GSM and UMTS services. As of the end of 2010, AT&T provided GSM services to approximately **[Begin Confidential Information]** **[End Confidential Information]** subscribers. Hogg Decl. ¶ 18. And it projects that it will need to continue devoting 850 MHz and 1900 MHz spectrum to GSM subscribers well into this decade, given the time it will take for AT&T to expand its UMTS network and migrate its GSM subscribers to UMTS or LTE services. *Id.* ¶¶ 5, 27.

As of the end of 2010, AT&T separately provided UMTS service to about another **[Begin Confidential Information]** **[End Confidential Information]** subscribers. Hogg Decl. ¶ 22. To support those services, it uses one or more 10 MHz “carriers” of 850 MHz or 1900 MHz spectrum, each consisting of paired 5 MHz blocks of spectrum. *Id.* ¶¶ 21-22. Because of the high demand for broadband service, AT&T already has had to deploy four carriers (for a total of 40 MHz of spectrum) for UMTS in some areas—and it will need to deploy more in the near future, even if doing so squeezes its GSM spectrum allocation and compromises GSM service quality. *See id.*; Section I.A.2, *infra*. AT&T expects that, given the relative infancy of the LTE ecosystem and the time needed to migrate subscribers, it will need to continue to allocate spectrum to UMTS services for a substantial number of years—indeed, even longer than AT&T needs to continue allocating spectrum for GSM services. *Id.* ¶¶ 5, 27.

³² Although handsets are not forward-compatible, they are typically backwards-compatible. For example, UMTS handsets can generally process GSM signals (so long as they are transmitted on compatible frequencies). *See* Carlton Decl. ¶ 33; Hogg Decl. ¶¶ 16 n.4, 22-23.

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Finally, AT&T has begun deployment of LTE services using its AWS and 700 MHz spectrum and currently plans to cover more than 250 million people by the end of 2013. *Id.* ¶ 27. LTE offers peak data speeds that, depending on the deployment configuration, are up to four times faster than HSPA+. *Id.* ¶ 24.

Significantly, although it will take time for subscribers to migrate to LTE, AT&T cannot simply “borrow” spectrum from the AWS or 700 MHz bands to address congestion for its GSM and UMTS/HSPA services. First, its customers’ GSM and UMTS handsets do not operate on those bands (or, for that matter, on a range of other frequencies in which third-party providers offer wholesale spectrum services). Hogg Decl. ¶ 66. Second, even if those customers’ handsets did operate on the AWS and 700 MHz bands, carving out some of that spectrum to support GSM and UMTS services would leave AT&T with insufficient spectrum to deploy the fastest and most spectrally efficient LTE services. *See id.*

AT&T’s need to support multiple generations of technology severely constrains its flexibility to use its spectrum with optimal efficiency. Each new generation of technology can support more traffic in a fixed amount of spectrum in a particular geographic area than its predecessor, and greater use of newer technologies is thus more spectrally efficient. For example, UMTS is significantly more spectrally efficient than GSM, and LTE in turn is 30-40 percent more spectrally efficient than HSPA+. Hogg Decl. ¶ 25. LTE is also about 860 percent more spectrally efficient than GSM. *Id.* But migration of customers from one technology to the next is typically a multi-year undertaking even once the new technology is deployed because, among other things, it takes considerable time for customers to migrate to new handsets. *See id.* ¶ 40. For example, in the first year after AT&T launched UMTS service, fewer than **[Begin Confidential Information]** **[End Confidential Information]** percent of its customers were

UMTS subscribers. *Id.* Even after five years, only about **[Begin Confidential Information]** **[End Confidential Information]** percent of its subscribers had UMTS service, with the remainder still on predecessor technologies. *Id.* Again, AT&T projects it will need to use its 850 MHz and 1900 MHz spectrum holdings to support GSM and UMTS services for a number of years and, in the meantime, will not be able to re-deploy them for more spectrally efficient LTE services. *Id.* ¶¶ 5, 27.

2. AT&T Faces Growing Capacity Constraints That, Absent This Transaction, Would Impair Its Ability to Offer High-Quality, Leading-Edge Services to Its Customers.

As Chairman Genachowski recently warned, today’s “explosion in demand for mobile services places unsustainable demands on our invisible infrastructure—spectrum. . . . And the coming spectrum crunch threatens American leadership in mobile and the benefits it can deliver to our country.”³³ He added:

If we do nothing in the face of the looming spectrum crunch, many consumers will face higher prices—as the market is forced to respond to supply and demand—and frustrating service—connections that drop, apps that run unreliably or too slowly. The result will be downward pressure on consumer use of wireless service, and a slowing down of innovation and investment in the space. Emerging markets like mobile medicine, mobile payments, social-network-based services, and machine-to-machine connectivity will see their growth stunted. This would hurt our economy broadly. It would also have a disproportionate impact on minority and low-income groups who are more likely than the average American to access the Internet through a mobile device.³⁴

³³ *Genachowski CTIA Remarks* at 5-6.

³⁴ *Id.* at 9 (emphasis added).

FCC staff has quantified the “looming spectrum crisis” to which the Chairman referred, concluding that “mobile data demand will exceed available capacity by 2013, and will reach a nearly 300 MHz deficit by 2014.”³⁵

AT&T’s network-capacity challenges, however, are not just “looming” a few years down the road—they are here today, the product of AT&T’s mobile broadband leadership and its need to support multiple generations of services. And although other providers’ public statements indicate that they have sufficient capacity to cover their needs until additional spectrum is made available via auction several years from now,³⁶ AT&T must move more quickly.

³⁵ Federal Communications Commission, *FCC Technical Paper No. 6: Mobile Broadband: The Benefits of Additional Spectrum* (Oct. 2010) at 18, <http://download.broadband.gov/plan/fcc-staff-technical-paper-mobile-broadband-benefits-of-additional-spectrum.pdf> (“*FCC Technical Paper No. 6*”).

³⁶ As noted in Section II.B below, *Verizon Wireless’s* CEO recently reaffirmed that his company is “extremely confident” it has the “spectrum position” it needs. *Verizon and Sprint react to US mega deal*, Mobile Business Briefing (Mar. 22, 2011) (quoting CEO Dan Mead), <http://www.mobilebusinessbriefing.com/article/verizon-and-sprint-react-to-us-mega-deal>. *Sprint* CEO Dan Hesse also has noted the strength of Sprint’s spectrum position: “When you combine Sprint’s spectrum position with Clearwire’s spectrum position it put[s] us in the strongest place for the future.” Andrew Munchbach, *Live from CTIA 2010’s Day Two Keynote with Sprint CEO Dan Hesse* (Mar. 24, 2010), <http://www.bgr.com/2010/03/24/live-from-ctia-2010%E2%80%99s-day-one-keynote-with-sprint%E2%80%99s-dan-hesse/> (“*Hesse Keynote*”). He further stated that “[w]e have the spectrum resources where we could add LTE if we choose to do that, on top of the WiMAX network. The beauty of having a lot of spectrum is we have a lot of flexibility.” Andrew Parker, *Sprint’s 4G move opens way to merger*, Fin. Times (July 12, 2010), <http://www.ft.com/cms/s/0/c4d6eb6a-8de0-11df-9153-00144feab49a.html#axzz1JKLAeXkb> (“*Sprint’s 4G move*”). *Leap’s* President and CEO similarly stated that, particularly with its new LightSquared spectrum arrangement (see Section II.B, *infra*), Leap “certainly ha[s] spectrum in most of our markets to launch LTE and to the degree that we can see cost advantages and scale advantages.” Phil Goldstein, *Leap to hold off on LTE devices until 2012* (Apr. 13, 2011), http://www.fiercewireless.com/story/leap-hold-lte-devices-until-2012/2011-04-13?utm_medium=nl&utm_source=internal. Meanwhile, *MetroPCS* has skipped a generation of technology and moved directly to more spectrally efficient LTE, which according to its COO, will allow it to “have great capacity,” particularly as it “can move voice to LTE.” Sue Marek, *MetroPCS’ COO on the pros and cons of the AT&T/T-Mobile deal*, FierceWireless (Mar. 30, 2011), <http://www.fiercewireless.com/story/metropcs-coo-pros-and-cons-attt-mobile-deal/2011-03-30>.

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AT&T has worked tirelessly to address these network-capacity challenges through a wide variety of available measures. First, AT&T has added many thousands of cell sites to extend and deepen its network, including approximately **[Begin Confidential Information]** **[End Confidential Information]** in 2010 alone. Hogg Decl. ¶ 72. A provider can effectively divide, or “split,” the geographic area covered by a cell site by adding one or more nearby sites. *Id.* ¶ 43. Because each site will serve a smaller area than the original, fewer people have to share the radio channels in each of the split sites, which effectively increases the available capacity. *See id.* To take a simple example, if a cell site covering a given area is divided into two equally sized cells covering the same area, the total capacity (*i.e.*, the amount of traffic that the network can handle) doubles. *Id.* As discussed below, however, building new cell sites is difficult, expensive, and—most importantly—prone to multi-year delays.

Second, AT&T has deployed indoor and outdoor distributed antenna systems (“DAS”), and Wi-Fi hotspots and Hotzones to offload traffic from AT&T’s mobile broadband network and relieve congestion. For example, AT&T installed a DAS network in downtown Chicago to offload heavy usage due to business and festival traffic. Hogg Decl. ¶ 34. AT&T also had deployed 24,000 Wi-Fi hotspots as of the end of 2010 in high use areas, as well as Hotzones in areas such as New York City’s Times Square and Chicago’s Wrigleyville. *Id.* In addition, since 2007, AT&T has purchased or leased spectrum in particular areas (where available and compatible) to alleviate specific capacity constraints on existing networks and to support next-generation networks. *Id.* ¶¶ 33, 66.³⁷

³⁷ AT&T also recently implemented tiered data pricing for smartphones, a decision necessitated, in part, by the need to respond to network capacity constraints. *See* Declaration of David Christopher, Chief Marketing Officer, AT&T Mobility Inc., at ¶ 4 (April 19, 2011) (“Christopher Decl.”) (attached).

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As discussed in Section I.A.6 below, however, these are short-term and expensive patches, and they are increasingly inadequate for dealing with AT&T's broader spectrum challenges. In a number of markets, AT&T is burning through its existing spectrum at an accelerating rate. Whereas in 2004 it took 24 months in major markets to exhaust 10 MHz of spectrum, from 2008-2010 growing UMTS demand caused AT&T to burn through 10 MHz in half that time or less in some major markets. Hogg Decl. ¶ 6. As a result, in many urban, suburban, and rural markets, AT&T faces a growing capacity crunch. Absent a solution to this problem, AT&T's customers would face a greater number of blocked and dropped calls as well as less reliable and slower data connections. And in some markets, AT&T's customers would be left without access to more advanced technologies. These potential consumer harms vary by market and fall generally into the following categories.

First, AT&T anticipates that it would lack the spectrum it needs to serve the demand for UMTS service in approximately **[Begin Confidential Information]** **[End Confidential Information]** CMAs covering nearly **[Begin Confidential Information]** **[End Confidential Information]** people by the end of **[Begin Confidential Information]** **[End Confidential Information]** (and in additional markets thereafter). Hogg Decl. ¶ 37. In particular, AT&T expects **[Begin Confidential Information]** **[End Confidential Information]** CMAs to reach UMTS spectrum exhaust between now and the end of **[Begin Confidential Information]** **[End Confidential Information]**, and **[Begin Confidential Information]** **[End Confidential Information]** more CMAs by the end of **[Begin Confidential Information]** **[End Confidential Information]**. *Id.* These markets include large cities such as **[Begin Confidential Information]**

[End Confidential Information], as well as smaller towns and

rural areas such as [Begin Confidential Information]

[End Confidential Information]. *Id.* Without a capacity solution, subscribers in these areas would confront degradation in service, including increased blocked and dropped calls and data connections, slower mobile broadband service, and other reductions in service quality. *Id.* ¶ 38.

Second, in [Begin Confidential Information] [End Confidential Information] other CMAs covering more than [Begin Confidential Information] [End Confidential Information] people, spectrum constraints currently keep AT&T from launching and supporting more spectrally efficient UMTS services *at all*. Hogg Decl. ¶ 39. Such areas encompass smaller and rural markets where broadband is less prevalent today, including—to name but a few examples—[Begin Confidential Information]

[End Confidential Information]. *Id.* In all of these areas, spectrum constraints deny customers the faster speeds and other benefits that accompany an upgrade from GSM to UMTS/HSPA+. And AT&T is unable to take advantage of the latter technology's greater spectral efficiencies. *Id.*

Third, quite apart from GSM and UMTS services, spectrum and capacity constraints would prevent AT&T in some markets from deploying LTE service at all, from providing it in its most beneficial configuration, and/or from serving expected LTE demand. In approximately [Begin Confidential Information] [End Confidential Information] CMAs covering about [Begin Confidential Information] [End Confidential Information] people, AT&T lacks the AWS or 700 MHz spectrum it needs to deploy LTE at all, while T-Mobile USA has at least 20 MHz of AWS spectrum. Hogg Decl. ¶ 60. Within another approximately [Begin Confidential Information] [End Confidential Information] CMAs, covering nearly

[Begin Confidential Information] [End Confidential Information] people, AT&T’s average spectrum holding is insufficient to permit deployment of the most spectrally efficient LTE services, whereas the combination of AT&T’s and T-Mobile USA’s spectrum will address the situation. *Id.* These markets include major cities such as [Begin Confidential Information] [End Confidential Information], and smaller communities such as [Begin Confidential Information] [End Confidential Information], and smaller communities such as [Begin Confidential Information] [End Confidential Information]. *Id.* AT&T also estimates that, as early as [Begin Confidential Information] [End Confidential Information], growing LTE demand is likely to create capacity shortages in such major markets as [Begin Confidential Information] [End Confidential Information]. *Id.*

3. Absent This Transaction, T-Mobile USA Would Confront Capacity Constraints and Lack a Clear Path to LTE.

Meanwhile, T-Mobile USA faces spectrum constraints of its own, despite its substantial investments in spectrum and network facilities. Like AT&T, T-Mobile USA confronts rising demand for data services.³⁸ As of the end of 2010, 3G/4G smartphone customers accounted for 24 percent of T-Mobile USA’s total customers, about double the 12 percent figure it had achieved by the fourth quarter of 2009.³⁹ Because of this “explosive growth in demand,” T-Mobile USA “faces spectrum exhaust in a number of markets.” Larsen Decl. ¶ 12. In particular,

³⁸ Dr. Kim Kyllsbech Larsen, Senior Vice President, Technology Service and International Network Economics, Deutsche Telekom AG, at ¶¶ 12-13 (April 19, 2011) (“Larsen Decl.”) (attached).

³⁹ *T-Mobile USA Reports Fourth Quarter 2010 Results*, at 5 (Feb. 25, 2011), http://www.t-mobile.com/company/InvestorRelations.aspx?tp=Abt_Tab_InvestorRelations&ViewArchive=Yes.

T-Mobile USA anticipates that, during [Begin Confidential Information] [End Confidential Information], it will reach spectrum exhaust in [Begin Confidential Information] [End Confidential Information]; that, during [Begin Confidential Information] [End Confidential Information], it will reach spectrum exhaust in [Begin Confidential Information]

[End Confidential Information];

and that, by [Begin Confidential Information] [End Confidential Information], anywhere from [Begin Confidential Information] [End Confidential Information] of its markets could follow suit. *Id.* ¶ 18.

Just as significantly, T-Mobile USA has “no clear path” to LTE. Larsen Decl. ¶¶ 23-26; Langheim Decl. ¶ 11. T-Mobile USA has already dedicated its current spectrum to UMTS/HSPA+ and GSM technologies. Larsen Decl. ¶ 11; Langheim Decl. ¶ 12. As a result, T-Mobile USA “does not have access to the spectrum needed to deploy LTE in an economically and technically sustainable fashion.” Langheim Decl. ¶ 12. Even in areas where T-Mobile USA could try to “refarm” its existing spectrum to make room for LTE, it would face serious competitive disadvantages. [Begin Confidential Information]

[End

Confidential Information]. Larsen Decl. ¶ 30. Moreover, T-Mobile USA [Begin Confidential Information]

[End Confidential Information]. *Id.* ¶ 23. In short, any such deployment

would be [Begin Confidential Information]

[End Confidential Information]. *Id.* As a result, T-Mobile USA “has no clear path to an effective, economical deployment of LTE.” *Id.* Simply put, its “options are [Begin Confidential Information] [End Confidential Information].” *Id.*

T-Mobile USA could try to alleviate these problems by purchasing more spectrum and investing in the necessary network infrastructure—at an estimated cost of [Begin Confidential Information] [End Confidential Information]. Langheim Decl. ¶ 14. But T-Mobile USA has concluded that its options for acquiring sufficient additional spectrum [Begin Confidential Information]

[End Confidential Information]. Larsen Decl. ¶ 9. Further, T-Mobile USA could not acquire new spectrum unless it obtains the necessary billions of dollars in investment capital, and it can no longer look to its corporate parent for that purpose. As DT Senior Vice President Langheim explains, “[t]he required substantial investments in LTE in the United States would significantly stretch Deutsche Telekom’s financial capability or, alternatively, force Deutsche Telekom to reallocate investments from our core Europe operations into T-Mobile USA, which has been shrinking for the last two years and which is lacking a clear path towards LTE to stay competitive.” Langheim Decl. ¶ 14. Because Deutsche Telekom has determined that it cannot divert capital from its core business, it has directed T-Mobile USA to “fund its future itself.”⁴⁰ As Langheim concludes, “[t]his means that T-Mobile USA would need

⁴⁰ *Jan. 20, 2011 DT Analyst Briefing* (Deutsche Telekom CEO Rene Obermann); *see also* Langheim Decl. ¶ 14 (“Because Deutsche Telekom’s financial priorities must be focused on

to fund spectrum acquisitions and other necessary capital investments through its own operations rather than by drawing on the resources of its corporate parent.” Langheim Decl. ¶ 14. That DT decision has made it significantly more difficult for T-Mobile USA to obtain the capital it needs to upgrade its network.

4. This Transaction Provides By Far the Surest, Most Output-Expanding, and Most Pro-Consumer Solution to the Applicants’ Capacity Challenges.

This transaction provides the most effective, efficient, and timely resolution of the capacity constraints facing AT&T and T-Mobile USA. AT&T’s and T-Mobile USA’s spectrum and networks are uniquely complementary: in addition to their well-matched cell site grids, both providers use GSM/HSPA+ technologies and have contiguous and compatible spectrum assets:

AT&T and T-Mobile USA Networks and Spectrum

Spectrum Band	AT&T			T-Mobile USA		
	GSM	UMTS/HSPA	LTE	GSM	UMTS/HSPA	LTE
700 MHz			UC			
850 MHz	X	X				
1900 MHz	X	X		X		
AWS			UC		X	

X: Active; UC: Under Construction

See Carlton Decl. ¶ 32 & Table 1. That complementarity will allow the combined company to produce the network synergies detailed below, each of which will increase capacity and output through more efficient use of the applicants’ spectrum and network resources. That increased capacity is *the functional equivalent of new spectrum*. AT&T estimates that the efficiencies resulting from this transaction, in combination, will push back the date of expected spectrum exhaust in many markets, particularly in its constrained markets. Hogg Decl. ¶ 11. With this

Europe, however, Deutsche Telekom’s CEO Rene Obermann has stated publicly that T-Mobile USA ‘has to develop into a self-funding platform that is able to fund its future itself.’”).

additional time, the company expects to be able to address continuing capacity needs through the ramping down of GSM networks, the fuller deployment of efficient, capacity-increasing LTE technologies, and new spectrum available at auction. *Id.*

This additional capacity will produce immediate and long-term benefits for the two companies' customers and consumers at large. It will give the combined company the flexibility it needs, on a market-by-market basis, to improve service quality for existing services and reallocate spectrum so that more consumers will have access to more advanced and spectrally efficient technologies such as LTE. And because the combined network will far exceed the sum of its parts (*i.e.*, 1+1=3), the transaction will increase overall output and consumer welfare more broadly. *See* Carlton Decl. ¶¶ 51-58, 133; *see* Section I.A.5, *infra*. Acting alone, neither company could begin to realize these efficiencies on anything resembling the same timetable.

a) Network Capacity Expansion Through Integration of T-Mobile USA's Cell Sites.

AT&T and T-Mobile USA have highly compatible cell site grids, both (1) because, unlike other major carriers, they both use GSM and UMTS/HSPA technologies that will permit more rapid integration of cell sites, and (2) because many of T-Mobile USA's sites are located in places where AT&T needs them to, for example, ease capacity congestion in its network. Hogg Decl. ¶¶ 18-19, 43-45. As a result, upon network integration, the combined company can conduct instant "cell splits," effectively doubling the amount of traffic that can be carried over the same amount of spectrum in the area served by the original site. *See* Section I.A.2, *supra*. All told, AT&T plans to integrate more than **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA's cell sites this way. Hogg Decl. ¶ 44; *see also* Larsen Decl. ¶ 7.

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The cell-site integration will proceed on a rolling basis, beginning immediately upon close of the transaction. AT&T will implement cell splits in its network by identifying T-Mobile USA sites that are complementary to AT&T's cell grid and then replacing T-Mobile USA's antennas and equipment with multi-band antennas and AT&T's equipment. Hogg Decl. ¶ 46. In selecting these T-Mobile USA sites, AT&T will give priority to locations that are currently suffering from near-term capacity constraints. *Id.* The company expects to see service improvements in areas of various markets in as early as nine months, and it expects to complete this integration process and optimize its network architecture on a national basis within twenty-four months. *Id.* ¶ 44. AT&T has a proven track record of incorporating cell sites in this fashion from prior transactions. *Id.* ¶ 45.

Given the complexity and delays inherent in the process of building cell sites (discussed in more detail below), AT&T could not replicate the benefits of this network integration on its own nearly as quickly because it could not possibly build **[Begin Confidential Information]**

[End Confidential Information] additional sites for many more years. *See* Hogg Decl. ¶¶ 12, 47; *see* Section I.A.6, *infra*. In markets throughout the country, the transaction will thus create a denser cell grid far faster than AT&T could standing alone. For example, AT&T projects that integration of T-Mobile USA's sites will increase cell density by as much as 35-45 percent in Chicago, 25-35 percent in San Francisco and New York, and nearly **[Begin Confidential Information]** **[End Confidential Information]** percent in Wichita, Kansas.

Hogg Decl. ¶ 47. By itself, this increase in network density will mean that the combined company's GSM and UMTS networks will have greater capacity than the sum of the two companies' separate networks. And that additional capacity will relieve congestion, allow for further broadband traffic growth, and, in some markets, allow existing customers to be served

with less spectrum, thereby freeing up spectrum for more spectrally efficient services. *Id.* ¶¶ 12, 44.

b) *Elimination of redundant control channels.*

AT&T and T-Mobile USA each generally dedicate substantial spectrum to GSM control channels, which are used to transmit commands (such as the assignment of particular radio channels) between user handsets and base stations. Hogg Decl. ¶ 48. The transaction will allow more efficient use of spectrum because the parties' combined network will require only a single set of control channels, rather than one for each independent network. *Id.* Eliminating redundant control channels will free up anywhere from 4.8 to 10 MHz of spectrum in each market where the applicants both provide GSM service. *Id.*; *see also* Larsen Decl. ¶ 7.

That spectrum can be either used to improve the quality of GSM service in congested areas or re-deployed and used more efficiently on the combined company's UMTS network. For example, in a market where AT&T currently has only 5 MHz of spectrum available for redeployment to UMTS, the elimination of redundant control channels could free up enough spectrum to permit the combined company to relieve UMTS congestion by deploying an additional carrier (which requires 10 MHz of spectrum). Hogg Decl. ¶ 48. This efficiency is another way in which the transaction will give the combined company substantially more capacity than the sum of the capacities of the standalone companies, increasing output and generating lower prices than would otherwise prevail. Carlton Decl. ¶¶ 12, 58, 133. No other two major carriers today have compatible GSM networks that would produce this efficiency, and thus it is unique to this transaction.

c) *Channel pooling efficiencies.*

Because not all users in a wireless cell are likely to place calls at once, a large number of those users will share a “pool” of a provider’s radio channels available to connect handsets with the network. Hogg Decl. ¶ 50. The term “channel pooling efficiencies” refers to the efficiencies a wireless provider gains when it can combine spectrum in an area and pool a greater number of wireless channels together. *Id.*⁴¹ For example, if a provider doubles the number of radio channels in a pool, it can serve significantly *more* than double the amount of customer traffic from that pool with the same statistical likelihood of network availability. *See id.* ¶ 52.

By analogy, imagine two airport scenarios involving four ticket agents:

Scenario 1: All customers line up in a single queue to accept service from any of the four ticket agents.

Scenario 2: Customers line up in two queues on opposite sides of the airport (making it impractical for customers to change queues), and each queue is served by two ticket agents (for a total of four).

Scenario 1 will result in faster and more efficient service for customers than Scenario 2. In Scenario 1, whenever a ticket agent is available, the next customer in line will be served. In Scenario 2, if there is no one in line for one group of ticket agents, those ticket agents could not serve any customers even if there is a long line for the other two ticket agents. *Id.* ¶ 51.

In wireless communications, two providers with complementary spectrum and common technologies can achieve an analogous benefit by serving all of their customers over a single set of shared network resources. In particular, any given caller is significantly more likely to find a vacant channel when a larger number of channels are pooled together. Hogg Decl. ¶ 50. This

⁴¹ Some network engineers use the term “trunking efficiencies” to describe the same phenomenon. Hogg Decl. ¶ 49 n.18. These terms relate to efficiencies in wireless channels between subscribers and radio infrastructure and are unrelated to efficiencies in backhaul facilities between towers and switching stations.

means in turn that, in every market where the parties' networks overlap, the combined company will be able to serve *more* customers (*i.e.*, carry more traffic) over the *same* amount of spectrum than they had independently served before. *Id.* ¶¶ 49-53; *see also* Larsen Decl. ¶ 8. This is yet another way in which the combined company's network will exceed the sum of its parts, creating the functional equivalent of new spectrum.

Channel pooling permits both immediate and longer-term benefits. In the short term, simply by pooling its GSM channels together, the combined company expects to increase network capacity in many areas by approximately 10 to 15 percent beyond the sum of each network's capacity standing alone. Hogg Decl. ¶ 50. Significantly, these channel pooling efficiencies can be achieved even if the networks being combined are both near capacity ("heavily loaded"). *Id.* ¶ 52. Once the networks are integrated, channel pooling will thus give the combined company an immediate boost in capacity in markets such as **[Begin Confidential Information]** **[End Confidential Information]**, where both parties face capacity challenges. *Id.*

Over the longer term, these efficiencies will give the combined company significantly greater flexibility in how it utilizes spectrum. In some markets, they will enable the company to consolidate the two networks' GSM spectrum, reducing dropped and blocked call rates and improving service quality. *Id.* ¶ 53. In other markets, because channel pooling efficiencies effectively allow a provider to use less spectrum to serve the same number of customers without increasing dropped and blocked call rates, the combined company could free up some spectrum currently dedicated to GSM and re-deploy it for UMTS services. That would relieve congestion for the latter services, allow subscribership numbers to grow without a loss of service quality, and make more efficient use of spectrum (since, as noted, later wireless technologies are more

efficient than earlier ones). *Id.* Moreover, also over the longer term, the combined company will be able to pool the channels used for UMTS services themselves once it begins serving all UMTS subscribers in a given area over the same frequency bands. *Id.* ¶ 49 n.19. In all of these respects—indeed, as a general matter—the more efficient use of spectrum will reduce the unit costs of providing service. *Id.* ¶ 53.

d) Utilization efficiencies.

In markets where one or both companies' GSM networks are underutilized, the combined company will be able to increase that utilization to help relieve congestion, to migrate spectrum to more spectrally efficient UMTS services, or both. Hogg Decl. ¶¶ 54-55. For example, in **[Begin Confidential Information]** **[End Confidential Information]**, AT&T's GSM network is capacity constrained, but T-Mobile USA's network is comparatively underutilized. *Id.* ¶ 54. Conversely, in **[Begin Confidential Information]** **[End Confidential Information]**, T-Mobile USA's GSM network is more heavily loaded than AT&T's. *Id.* By combining the networks, the parties will be able to carry traffic in those areas more efficiently, thereby relieving congestion and freeing up spectrum. *Id.* ¶ 55. By analogy, consider two water bottles of identical size, where one is 80 percent full and the other is 10 percent full. Pouring the water from one bottle into the other leaves one 90-percent-utilized bottle and frees up an empty bottle to use for some other purpose. In this context, moreover, the freed-up spectrum can hold substantially more traffic than before if it is repurposed for more efficient UMTS technology. *Id.*

The particular ways in which the efficiencies play out will vary by market. The critical point, however, is that the transaction will give the combined company flexibility to make more efficient use of either party's currently underutilized GSM network in order to relieve

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congestion, free up spectrum for more efficient UMTS services (which can carry more traffic over the same amount of spectrum), or both. This is yet another way in which the merger will expand output and enhance consumer welfare.

e) *Additional spectrum for more spectrally efficient LTE services.*

The transaction also will increase capacity by freeing up spectrum that can be used for more spectrally efficient LTE services. As noted, T-Mobile USA's AWS spectrum is currently dedicated to relatively less efficient HSPA+ technology. Over time, at a rate that will vary by market, the combined company will be able to (1) migrate T-Mobile USA subscribers off the AWS spectrum to AT&T's UMTS bands, which merger synergies will have made less congested, (2) upgrade them to LTE service, or (3) pursue some combination of these two. Hogg Decl. ¶ 56. This process generally will take time because it will require the affected T-Mobile USA UMTS subscribers to obtain new handsets, given that their current handsets cannot provide UMTS service outside the AWS band and cannot provide LTE service on any band. But the transaction eventually will enable AT&T to free up T-Mobile USA's AWS spectrum for higher-performing and more spectrally efficient LTE services. *Id.* Moreover, in some places, such as **[Begin Confidential Information]** **[End Confidential Information]**, T-Mobile USA holds AWS spectrum that it has not deployed for UMTS service, and the combined company can re-purpose that spectrum for LTE without having to migrate UMTS/HSPA customers. *Id.*

In some markets, this spectrum redeployment will enable the combined company to offer LTE where neither company could have offered it separately. For example, as noted above, in approximately **[Begin Confidential Information]** **[End Confidential Information]** CMAs where AT&T lacks enough 700 MHz or AWS spectrum to deploy LTE, T-Mobile USA has

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AWS spectrum that can be used to support that deployment. Hogg Decl. ¶ 60. These markets include **[Begin Confidential Information]**

[End Confidential Information], to name a few examples. *Id.* Within approximately **[Begin Confidential Information]** **[End Confidential Information]** additional CMAs (including cities such as **[Begin Confidential Information]** **[End Confidential Information]** and smaller towns such as **[Begin Confidential Information]** **[End Confidential Information]**), the combination of AT&T and T-Mobile USA spectrum will give the post-merger company contiguous blocks of at least (on average) 20 MHz of AWS spectrum for LTE, which AT&T currently lacks in those areas. *Id.* In these markets, that 20 MHz of contiguous spectrum will enable the combined company to provide LTE to more people at faster speeds and with greater efficiency. *Id.* In other markets, the redeployment of T-Mobile USA's spectrum to LTE will also help prevent likely exhaustion of the LTE network as that service ramps up and demand inevitably increases. *Id.* AT&T estimates that, without this transaction, it is likely to face LTE capacity constraints as early as **[Begin Confidential Information]** **[End Confidential Information]** in such major markets as **[Begin Confidential Information]**

[End Confidential Information]. *Id.*

Finally, as described above, T-Mobile USA has no clear path to providing LTE service with its current spectrum holdings because it is already serving millions of customers on its AWS spectrum using less spectrally efficient HSPA+ technologies. This transaction will provide a clear path for migrating T-Mobile USA customers to more efficient LTE services, thereby enabling the combined company to further expand output.

* * *

In sum, the transaction will enable the merged firm to create far greater capacity on the combined network than the two networks could achieve on their own by (i) creating a denser network with additional cell sites that increase aggregate capacity; (ii) increasing spectrum available to provide service by consolidating redundant GSM network control channels; (iii) increasing the efficiency of existing spectrum through “channel pooling”; (iv) making greater use of underutilized networks; and (v) freeing up spectrum for more spectrally efficient services and thereby expanding the number of areas in which such services will be deployed. In so doing, the transaction will give the combined company much-needed flexibility to relieve capacity constraints by enabling it to optimize its use of spectrum on a market-by-market basis, while giving it the headroom necessary to migrate users to more efficient technologies over time.

5. By Alleviating the Parties’ Capacity Constraints and Enabling More Efficient Use of Spectrum, This Transaction Will Yield Substantial Benefits for Consumers.

The transaction will benefit consumers in general and the two companies’ customers in particular. First, as Professor Carlton explains, “[t]he increase in the combined capacity of the AT&T and T-Mobile USA networks that will result from the proposed merger will lower the cost of serving additional subscribers and thus create incentives to expand output and lower prices relative to the levels expected in the absence of the transaction.” Carlton Decl. ¶ 134; *see also id.* ¶ 12. The combined company will have especially “strong incentives to fully utilize available capacity given the rapid projected increase in the demand for wireless services and competition from AT&T’s rivals.” *Id.* ¶ 58; *see also id.* ¶ 7. Thus, the transaction will increase overall output and produce better services and more competitive prices in the market as a whole than would prevail in the absence of the transaction.

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Second, the transaction will deliver major benefits to the current and future customers of both companies:

AT&T Customers. Because the transaction will alleviate AT&T's severe capacity constraints and avoid spectrum exhaust, AT&T's GSM and UMTS customers will receive higher quality of service in the form of fewer dropped and blocked calls, better in-building and in-home coverage, and faster, more consistent, and more reliable data services, particularly during periods of peak use. *See* Hogg Decl. ¶¶ 61-64. And because AT&T will adopt the best practices of each company, AT&T expects that its customers will benefit from T-Mobile USA's industry-leading customer care practices.⁴²

Moreover, as described above, this transaction will (1) in many areas, give AT&T customers access to UMTS and LTE services they could not otherwise receive at all and (2) in many other areas, give AT&T customers faster LTE services as a result of greater deployment of spectrum resources to LTE services. Further, AT&T's increased deployment of LTE to more than 97 percent of the U.S. population will give millions of people who are *not* currently AT&T customers the option of choosing LTE services. As a result, these customers will be able to take advantage of faster services with less latency (particularly important for applications such as telemedicine, video conferencing, and online gaming). Hogg Decl. ¶ 26.

T-Mobile USA Customers. Again, the transaction will give T-Mobile USA customers their only clear path to LTE, the mobile technology of the future. Larsen Decl. ¶ 36. T-Mobile USA customers, like AT&T customers, will further benefit from improved service quality,

⁴² *See, e.g.*, Press Release, *T-Mobile USA Tops Fourth Consecutive Retail Customer Satisfaction Study* (Feb. 17, 2011), <http://newsroom.t-mobile.com/articles/T-Mobile-JDPower-Retail-Customer-Satisfaction>; Press Release, *T-Mobile Tops Ranking in Wireless Customer Service For Second Consecutive Time* (Feb. 3, 2011), <http://newsroom.t-mobile.com/articles/T-Mobile-Highest-Customer-Service>.

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especially in capacity-constrained areas, with fewer dropped and blocked calls and faster and more consistent data downloads. T-Mobile USA customers will also gain access to a broader range of current devices such as the iPhone, the iPad, and the ATRIX 4G, as well as faster access to the next generation of devices. Moore Decl. ¶ 10.

Further, because most T-Mobile USA GSM customers have handsets that will work on AT&T's GSM network, AT&T expects that, immediately after closing, T-Mobile USA's customers in certain areas will benefit from their ability to access both networks. Hogg Decl. ¶ 57. In these areas and elsewhere once the networks are integrated, T-Mobile USA's GSM customers will enjoy improved coverage, including superior in-building and in-home service, because of the denser grid and access to 850 MHz spectrum. *Id.* As T-Mobile USA's UMTS subscribers migrate to the AT&T network, they too will benefit from better in-building penetration and broader coverage—indeed, more than double the geographic coverage for UMTS they have today. *Id.* 58. These are key benefits: **[Begin Confidential Information]**

[End Confidential Information]. Larsen Decl. ¶ 30.

Finally, the transaction will enhance the diversity of rate plans available to T-Mobile USA customers. Consumers who are happy with their T-Mobile USA rate plans will be able to keep them, so they will enjoy the benefits of improved service quality and thus a lower quality-adjusted price. Moore Decl. ¶ 30. Moreover, T-Mobile USA customers who wish to consider other options will have access to AT&T's broad selection of rate plans, such as basic/senior plans available to customers 65 years and older, individual entry-level plans starting as low as 200 minutes per month, and plans with expanded weekend hours, and rollover minutes. *Id.* In

addition, they will benefit from free mobile-to-mobile calling to a substantially expanded customer base. *Id.*

To be clear, consumers will not have to make any changes to their T-Mobile USA services or devices upon the close of this transaction. Their handsets will continue to work, and they can remain on their current rate plans. The transaction merely gives them the highly valuable *option* to take advantage of more advanced service technologies, a broader range of devices, and additional rate plans.

6. Alternative Solutions to the Two Carriers’ Capacity Challenges Would Be Far Inferior.

AT&T and T-Mobile USA have thoroughly explored alternatives for relieving their capacity constraints, and each is already aggressively pursuing all steps reasonably available to make more efficient use of its existing spectrum and network. But those steps are costly and prone to lengthy delays, and none of them would come close to providing the benefits and efficiencies of this transaction. As the Commission’s staff has recognized, even “substantial investment” in networks is unlikely to prevent spectrum exhaust due to mobile data demand.⁴³

a) Adding sites

Although wireless networks can incrementally increase capacity in some circumstances by organically adding cell sites through cell splitting, that approach cannot provide the solution AT&T needs. Hogg Decl. ¶¶ 67-72. With this transaction, AT&T expects to integrate more than

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[End Confidential Information] T-Mobile USA cell

⁴³ *FCC Technical Paper No. 6*, at 26; *see also* Federal Communications Commission, *Connecting America: The National Broadband Plan*, at 77 (2010), <http://download.broadband.gov/plan/national-broadband-plan.pdf> (“*National Broadband Plan*”) (“In the absence of sufficient spectrum, network providers must turn to costly alternatives, such as cell splitting, often with diminishing returns.”).

sites into the AT&T network. *Id.* ¶ 67. For a variety of reasons discussed below, AT&T simply could not add **[Begin Confidential Information]** **[End Confidential Information]** new sites in anything close to the same period of time, or likely in the same advantageous locations, in the absence of this transaction. *Id.* ¶¶ 69, 72.

To add a site, a provider must locate a suitable and available location, arrange to acquire the site through purchase or lease, comply with regulatory requirements that necessitate extensive studies and consultation, apply for and obtain building permits and zoning approvals, contract with third-party vendors to purchase the needed equipment, construct the site and associated backhaul, and then integrate the site into the network. *Id.* ¶¶ 69-71. This process can literally take years. In the San Francisco/Bay Area market, for example, the zoning process *alone*—only a single step in this long, multi-step process—has taken AT&T an average of **[Begin Confidential Information]** **[End Confidential Information]** to complete. *Id.* ¶ 70.

Despite these obstacles, AT&T completed approximately **[Begin Confidential Information]** **[End Confidential Information]** new cell sites in 2010, which was less than the **[Begin Confidential Information]** **[End Confidential Information]** sites it budgeted for and pursued. Hogg Decl. ¶ 72.⁴⁴ Thus, the **[Begin Confidential Information]**

[End Confidential Information] T-Mobile USA sites that AT&T could integrate represent more than *eight years* of new sites based on AT&T's 2010 rate. *Id.* ¶ 67. Nor are the delays inherent in the site addition process likely to diminish in the near future. To the contrary,

⁴⁴ In some areas, AT&T's success rate in adding sites was even worse. In the **[Begin Confidential Information]** **[End Confidential Information]** metropolitan area, for example, AT&T completed only **[Begin Confidential Information]** **[End Confidential Information]** percent of the site additions that were planned that year. Hogg Decl. ¶ 72.

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many municipalities face budget deficits and have fewer resources to process tower site applications even as the number of site applications has grown with the rollout of 4G services by multiple providers. *Id.* ¶ 71. At the same time, the pace of those other providers' site additions limits the available pool of engineering, vendor, and other resources AT&T needs in order to add cell sites of its own. *Id.*⁴⁵

Delay is not the only reason that AT&T could not come close to replicating the cell density improvement resulting from this transaction. T-Mobile USA's sites are the product of years of effort to secure the best cell site locations. Some of T-Mobile USA's well-placed sites appear to be in locations where AT&T could not replicate them—for example, because of limited space. Hogg Decl. ¶ 68. Moreover, after years of aggressive cell-splitting activities to improve capacity, it has become increasingly difficult for AT&T to find suitable locations. *Id.* ¶ 69. Finally, adding sites is also extremely costly. Indeed, Commission staff has estimated that it would cost the industry \$174 billion to build enough cell sites to handle the expected demand growth between now and 2014 and has concluded that adding cell sites is not a feasible alternative to additional spectrum for dealing with growing mobile data demand.⁴⁶

Nor could AT&T simply lease space on these **[Begin Confidential Information]**
[End Confidential Information] T-Mobile USA sites in the absence of this transaction. Even if T-Mobile USA owned a given cell tower and wished to explore such a leasing arrangement,

⁴⁵ There is no merit to speculation that AT&T could add more sites faster by relying on third-party tower companies. *See* Spencer Ante & Amy Schatz, *Skepticism Greets AT&T Theory*, Wall St. J. (Apr. 4, 2011). AT&T already has pursued that course with vigor, and many of the sites it adds involve third-party tower companies. But such companies often do not have towers in the locations where AT&T faces congestion and needs to add a site. Indeed, in many cases where AT&T works with a tower company, the tower company itself needs to build a new tower, thus encountering many of the same obstacles outlined above.

⁴⁶ *FCC Technical Paper No. 6*, at 21.

many of those sites may not have space or the structural reinforcement needed for two carriers' equipment. After this transaction, by contrast, the combined company will integrate the sites into a single network with only one set of equipment and multi-band antennas.

b) Deployment of DAS and Wi-Fi

Nor can outdoor distributed antenna systems and Wi-Fi hotspots (and Hotzones) achieve the same nationwide efficiencies as the merger, even if they are coupled with other available measures to increase efficiency and manage capacity. AT&T's experience is that Wi-Fi provides less meaningful capacity relief than a cell site and, of course, is limited to small areas. Hogg Decl. ¶ 73. Distributed antenna systems likewise provide meaningful traffic offload only in areas with extremely high user densities, such as convention centers, stadiums, and universities. *Id.* And even then, they are extremely expensive to deploy, costing on average **[Begin Confidential Information]** **[End Confidential Information]** more than an equivalent cell split and over **[Begin Confidential Information]** **[End Confidential Information]** more than adding a carrier to an existing cell site. *Id.* Further, deployment of DAS can be subject to permitting and construction delays similar to those affecting new cell site additions. *Id.* At best, both Wi-Fi and DAS offer highly localized solutions for areas much smaller than those served by a cell site and cannot solve the systemic capacity issues that AT&T and T-Mobile USA confront. *Id.*⁴⁷

c) Redeploying existing spectrum

It would also be exceptionally difficult, if not impossible, for AT&T to repurpose its existing spectrum quickly enough to alleviate the capacity crunch it faces. As noted above,

⁴⁷ While AT&T also has added femtocells to its networks, these are designed primarily to address in-home coverage issues rather than to increase network capacity and, accordingly, do not constitute a workable solution to capacity problems in most cases. Hogg Decl. ¶ 73.

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AT&T must continue to support tens of millions of GSM and UMTS subscribers. These embedded users have handsets that work only in particular bands and with particular technologies, limitations that severely constrain AT&T's ability to repurpose the spectrum those customers use. And existing customers generally will not transition quickly from one technology or frequency band to another, because doing so requires them to give up their existing handsets. Based on AT&T's experience, it can take years for subscribers to migrate to new technologies in volumes sufficient to provide material offload from the legacy network. Hogg Decl. ¶ 27. As discussed, AT&T also cannot use its existing AWS and 700 MHz spectrum to alleviate capacity constraints, since that spectrum is needed for LTE services that AT&T is deploying. Indeed, because LTE is more spectrally efficient than GSM and UMTS, it would be a significantly *less* efficient use of spectrum to divert AWS and 700 MHz spectrum from LTE to these older technologies.

Nor can AT&T address its short-term capacity challenges with the spectrum it is purchasing from Qualcomm. That spectrum is only "unpaired" (one-way). Moore Decl. ¶ 25. Although technological advances will allow unpaired spectrum to be integrated into two-way wireless technologies to supplement downlink capacity, the technical specifications for doing so in LTE will not be developed until 2012, and equipment manufacturers will then need substantial time to design, test, and build the relevant equipment. As a result, this spectrum likely will not be available until 2014 at the earliest.⁴⁸

⁴⁸ Moore Decl. ¶ 25. AT&T's existing WCS spectrum holdings cannot be used for this purpose either, because the technical rules for the WCS band, such as limits on the power spectral density limits, make it infeasible to use that band for broadband service. *See* AT&T Petition for Partial Reconsideration, WT Docket No. 07-293, at 13-20 (filed Sept. 1, 2010). And the spectrum that AT&T acquired in 2010 as a result of divestitures in the Verizon/Alltel transaction primarily expanded AT&T's footprint to cover areas where it previously had not

d) Adding spectrum through purchase or lease

AT&T and T-Mobile USA also have no feasible near-term sources of additional spectrum that would solve the problem. Although the Commission has identified spectrum it hopes to free up for commercial use, the Commission staff has observed that “new spectrum has historically taken between six and thirteen years to make available[.]”⁴⁹ That will be too late to solve the provider-specific challenges that AT&T and T-Mobile USA confront today. For example, the broadcast spectrum that the Commission proposes to make available for broadband use through incentive auctions will require passage of new federal legislation, an FCC rulemaking, the occurrence of the auction process itself, clearance of the spectrum, and deployment of the needed equipment. Recent experience teaches that these steps take many years and proceed with extreme unpredictability. Moore Decl. ¶ 23; Larsen Decl. ¶¶ 33-35. AT&T certainly cannot count on this process to resolve its growing capacity constraints today.

Nor can AT&T find an adequate solution by acquiring spectrum that has already been licensed to other mobile providers. AT&T is sometimes able to purchase small blocks of spectrum in selected areas, but that is at most a localized and short-term solution. Moore Decl. ¶ 24. Also, AT&T often cannot feasibly make use of other providers’ spectrum because its existing network equipment and customers’ handsets will not operate on it. *See id.* ¶ 22; Hogg Decl. ¶ 16 n.4; Carlton Decl. ¶ 33.

For similar reasons, spectrum leased from wholesale providers such as Clearwire or LightSquared cannot address AT&T’s mounting capacity constraints. Among other limitations,

owned a network. Because there was very little overlap, the transaction provided no relief for AT&T’s capacity challenges. Hogg Decl. ¶ 33 n.13.

⁴⁹ *FCC Technical Paper No. 6*, at 26.

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AT&T (like T-Mobile USA) has a large embedded base of subscribers whose existing handsets would not work on those providers' spectrum bands or with their technologies. This transaction presents an efficient solution in part because it *avoids* that problem: AT&T and T-Mobile USA use compatible GSM spectrum that will not require immediate handset replacements for existing subscribers. In contrast, Clearwire or LightSquared spectrum may well offer reasonable solutions for carriers like MetroPCS or Leap, but only because they can put it to a quite different use. Unlike AT&T, which needs additional spectrum to relieve congestion on *existing* service bands serving millions of current customers, MetroPCS and Leap can look to Clearwire and LightSquared to deploy a new generation of service over a new generation of handsets. More generally, as Professor Carlton points out, LightSquared, Clearwire, and the companies that use their spectrum “can ‘leapfrog’ existing carriers by deploying ‘next generation’ technologies without needing to dedicate spectrum and network assets to serving existing subscribers.”

Carlton Decl. ¶ 76; *see also id.* ¶ 106.

7. In Addition To Network-Capacity-Oriented Synergies, the Transaction Will Also Create Substantial Cost Synergies.

AT&T projects that this transaction will generate cost savings and other synergies that ultimately exceed the purchase price of \$39 billion, with an annual run rate on the order of \$3 billion from year three onward. Moore Decl. ¶ 32. These cost synergies are based on standard discounted cash flow analysis, and are described in greater detail in the attached declaration of AT&T Senior Vice President of Corporate Development Rick Moore.

To take one example, even as AT&T integrates thousands of T-Mobile USA's cell towers to enhance the efficiency of the combined network, it can also decommission thousands of surplus sites, generating substantial costs savings from elimination of leases, utilities,

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maintenance, and other site-related expenses. Moore Decl. ¶ 34. AT&T will also be able to reuse equipment from these decommissioned sites to enhance network coverage and performance in other locations, resulting in additional savings.⁵⁰ *Id.* Further savings will arise from a reduction in interconnect and toll expenses as a result of switching to AT&T where possible for transport. *Id.*

The combined company will also be able to take advantage of scale efficiencies by, for example, optimizing its retail and distribution network. Moore Decl. ¶ 35. And the company will be able to combine customer support and billing functions to generate additional annual savings. *Id.* ¶ 37. The transaction will further generate purchasing efficiencies when the combined company procures customer equipment such as handsets as well as network equipment and infrastructure. *Id.* ¶¶ 35-36. The transaction will also enable the combined company to re-allocate capital expenditures that the individual companies would have been required to make over the next few years in attempting to address some of their respective capacity issues, including capital to build out infrastructure and acquire spectrum on the secondary market. *Id.* ¶ 36.

Consumers will benefit as the combined company realizes these cost reductions. As Professor Carlton explains, reductions in marginal costs (such as customer acquisition costs) create incentives to expand output and reduce prices to consumers. Carlton Decl. ¶ 67. But that is also true of fixed cost savings in an industry, like this one, that is operating near capacity and faces high costs to expand output. In that situation, all such costs—“including those typically considered ‘fixed’ in an accounting sense—are properly thought of as variable because they must

⁵⁰ AT&T will likely make the remaining equipment and towers (if the company owns them) available for sale to other providers.

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be incurred in order to serve additional subscribers.” *Id.* As Professor Carlton concludes, the synergies created by combining these two companies will reduce the “fixed costs” of expanding output and will thus increase the combined company’s economic *incentives* to expand output, all to the benefit of consumers. *Id.*

Finally, AT&T has a strong track record of realizing synergies from prior transactions. *See* Moore Decl. ¶¶ 38-42. In these prior acquisitions, AT&T not only gained experience in how to integrate operations, but also met or exceeded key targets for synergies and cost savings while delivering significant customer benefits. For example, within just a few years of Cingular’s acquisition of AT&T Wireless, the combined company had lowered costs in areas such as network infrastructure, sales and marketing, and billing and information systems; dramatically expanded its 3G footprint; improved Cingular’s customer retention; and launched new innovative devices and products. *Id.* ¶ 39. The SBC-AT&T Corp. merger further illustrates AT&T’s ability to execute merger integrations successfully. While SBC had estimated in January 2005 that the net present value of merger synergies from that transaction would be \$15 billion, it was able to increase that forecast one year later to approximately \$18 billion. *Id.* ¶ 40. And from 2006 through 2008, actual synergy savings exceeded expectations in a variety of areas, including network planning and engineering, information technology, and procurement. *Id.* AT&T likewise exceeded forecasted synergy savings in a number of categories in its acquisition of BellSouth. *Id.* ¶ 41.

B. This Transaction Will Strongly Advance the Nation’s Broadband and High Tech Goals.

1. This Transaction Gives the Combined Company the Necessary Scale, Scope, Resources, and Spectrum to Deploy LTE to More than 97 Percent of Americans, Thereby Stimulating Economic Growth and Thousands of Jobs.

As a result of this transaction, AT&T can increase its LTE deployment from 80 to more than 97 percent of the U.S. population. That deployment will mark a quantum leap towards meeting the Administration’s rural broadband deployment objectives—without any expenditure of public funds.

In his State of the Union address, President Obama noted the strategic importance of broadband in “winning the future” by “encouraging American innovation” and maintaining our global competitiveness.⁵¹ Central to the President’s message was the fundamental importance of widespread broadband availability. He vowed to “make it possible for businesses to deploy the next generation of high-speed wireless coverage” throughout America, not only to produce a “faster Internet” and “fewer dropped calls,” but also to “connect[] every part of America to the digital age.”⁵² The benefits of this private investment, he added, will be diverse and immense: “farmers and small business owners will be able to sell their products all over the world,” firefighters “can download the design of a burning building onto a handheld device,” rural students can “take classes with a digital textbook,” and a patient in a remote area “can have face-to-face video chats with her doctor.”⁵³ These private investments, he concluded, “will make

⁵¹ *Obama 2011 State of the Union Address, supra.*

⁵² *Id.*

⁵³ *Id.*

America a better place to do business and create jobs.”⁵⁴ In February 2011, the President followed up on this pledge by announcing the Wireless Innovation and Infrastructure Initiative, which takes steps to extend the 4G revolution to rural areas and bring them fully within the 21st century economy.⁵⁵

This Commission has likewise recognized that “[b]ringing ubiquitous and affordable broadband services to rural America will improve the quality of education, healthcare, and public safety in rural America, among other benefits. On a larger scale, ensuring that all Americans, including those in rural areas, have access to such services will help to improve America’s economy, its ability to compete internationally, and its unity as a nation.”⁵⁶

AT&T’s 97 percent LTE deployment will help the U.S. meet these critical priorities. AT&T’s current (pre-merger) plans call for deployment of LTE to approximately 80 percent of the U.S. population but no more. *See* Moore Decl. ¶¶ 5, 13. The remaining 20 percent of the population generally lives in less populated areas, including rural and smaller communities, where economies of scale and density are very low and per-customer costs are very high.⁵⁷ And in some of these areas, AT&T simply lacks the spectrum necessary to deploy LTE. *See* Section I.A, *supra*. This transaction, however, will give AT&T the scale, scope, resources, and spectrum

⁵⁴ *Id.*

⁵⁵ The White House, *President Obama Details Plan to Win the Future through Expanded Wireless Access* (Feb. 10, 2011), <http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access>.

⁵⁶ Federal Communications Commission, *Bringing Broadband to Rural America: Report on Rural Broadband Strategy* at 8, ¶ 15 (May 22, 2009); *accord National Broadband Plan*, at 5, 227, 269.

⁵⁷ *See* Federal Communications Commission, *OBI Technical Paper No. 1: The Broadband Availability Gap*, at 40 (Apr. 2010), <http://download.broadband.gov/plan/the-broadband-availability-gap-obi-technical-paper-no-1.pdf>.

it needs to increase its LTE deployment from 80 percent to more than 97 percent of the U.S. population.

This initiative means, in practical terms, that AT&T will provide LTE to approximately 55 million more people than under its current plans and more than an additional million square miles, which equates to more than one-third of the land mass of the contiguous United States. Much of this additional service will be provided in rural areas and will thus give rural residents access to efficient, fast, and reliable broadband connections that they might otherwise lack altogether. And even in locations where another provider has already deployed LTE, AT&T's deployment will provide, at a minimum, key additional competition.

The LTE and other deployment initiatives this transaction makes possible will spur additional broadband investment, jobs, and economic growth worth billions of dollars in all areas of the country. One study concludes that “[a]nnualized investment in 3G wireless and satellite technologies from 2003 to 2009 was \$11.6 billion, which corresponds to 168,300 jobs created.”⁵⁸ Chairman Genachowski has likewise recognized that 4G investment can spur hundreds of thousands of new U.S. jobs.⁵⁹ And Lawrence Summers, then head of the President's National Economic Council, stated in 2010 that “[e]ach dollar invested in wireless deployment is estimated to result in as much as \$7 to \$10 higher GDP,” and that as wireless investment grows, “the benefits for job creation and job improvement are likely to be substantial.”⁶⁰

⁵⁸ Robert W. Crandall & Hal J. Singer, *The Economic Impact of Broadband Investment*, Broadband for America, at 2 (2010) (emphasis omitted).

⁵⁹ *Genachowski CTIA Remarks*, at 9 (citing estimate of the High Tech Spectrum Coalition: “[O]ver the next five years, investments in 4G wireless technologies will create 205,000 US jobs, assuming our spectrum infrastructure can handle 4G demand.”).

⁶⁰ *Summers Remarks*, *supra*.

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This transaction will create precisely those “benefits for job creation and job improvement.” In addition, because AT&T is the only unionized major wireless company, this transaction will bring jobs with union wages and benefits. That is one reason why this transaction has drawn strong support from the Communications Workers of America and the AFL-CIO.⁶¹ And the success of AT&T’s best-in-class supplier diversity program,⁶² along with the benefits of LTE for communities of color (discussed below), are key reasons why civil rights groups including the NAACP and the Hispanic Institute have highlighted the transaction’s potential to significantly expand the opportunities for minority consumers and businesses to participate in our country’s broadband economy.⁶³

⁶¹ See CWA, *AT&T/T-Mobile Deal Will Benefit Workers and Build Out Broadband* (Mar. 24, 2011) (“AT&T’s acquisition of T-Mobile USA is good news. AT&T will build out broadband to provide service to 95 percent of the country and workers at T-Mobile will benefit from a management record of neutrality in organizing. The merger of AT&T and T-Mobile spectrum will improve AT&T’s network and quality, along with the job security of CWA members.”), http://www.cwa-union.org/news/entry/att_t-mobile_deal_will_benefit_workers_and_build_out_broadband; see also *Statement by AFL-CIO President Richard Trumka on Announced Acquisition of T-Mobile USA by AT&T* (Mar. 22, 2011), www.speedmatters.org.

⁶² See AT&T’s Global Supplier Diversity Website, <http://www.attsuppliers.com/sd/>. See also *AT&T Receives High Marks from Diversity Inc.* (Mar. 7, 2011), <http://www.att.com/gen/press-room?pid=19272&cdvn=news&newsarticleid=31668&mapcode=corporate|community>.

⁶³ For example, the NAACP states: “AT&T’s acquisition of T-Mobile has the potential to benefit consumers, communities and workers alike. AT&T has scored among the highest ranked in the telecommunications industry for its commitment to diversity in terms of procurement, philanthropy, promotion and hiring among other criterion at the federal, state and local levels We are hopeful that this acquisition will further advance increased access to affordable and sustainable wireless broadband services and in turn stimulate job creation and civic engagement throughout our country.” Letter from Hilary O. Shelton, Director, Washington Bureau and Senior Vice President for Advocacy and Policy, NAACP, to Marlene Dortch, FCC, at 1 (Apr. 18, 2011); *The Hispanic Institute Announces Support for Proposed Merger of AT&T and T-Mobile* (Mar. 21, 2011) (“The proposed merger of AT&T and T-Mobile will move us closer to universal mobile broadband deployment. When we consider how essential mobile technology is to empowering communities, we conclude that this proposal is good for Hispanic America.”), <http://www.thehispanicinstitute.net/node/3690>.

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This more than 97 percent LTE deployment will further create long-term benefits for the affected communities that far transcend the immediate economic stimulus. LTE will bring especially significant benefits to residents of rural areas and smaller communities, where the benefits of real-time video and similar capabilities are most urgently needed to fill gaps in physical infrastructure for healthcare, education, and other social needs. For example, LTE's uniquely low latency rate provides better support for delay-sensitive online applications such as distance learning (which involves real time interaction between students and teachers), video conferencing, remote medical monitoring, real-time patient examinations by doctors in multiple locations, and complex gaming systems played simultaneously by thousands of users. *See, e.g.,* Donovan Decl. ¶ 29.

In addition, LTE's state-of-the-art broadband performance will create a virtuous cycle of investment and innovation in cloud computing. With increased spectrum and higher bandwidth speeds, more information and processing power can be transferred to the "cloud"—*i.e.*, to Internet-based servers running sophisticated programs that end users can use on demand through their broadband connections. *See* Donovan Decl. ¶¶ 6, 30-32. As a result, wireless devices will become dramatically more useful to consumers even as—with the transfer of many computing responsibilities to the cloud—those devices become thinner, lighter, and able to support far longer battery life. These advances can also facilitate embedding wireless connectivity in a wide variety of consumer and business devices, with usage and other capabilities monitored and controlled from the cloud. Cloud computing depends, however, on rapid transfers of data between wireless devices and the cloud. Because LTE is uniquely efficient in handling those data transfers, broader LTE coverage will support the shift towards cloud-based services for business and consumers and ensure in particular that rural areas are not left behind. As

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Chairman Genachowski recently observed, “[a] thriving global cloud computing industry, built on ubiquitous broadband, can be as beneficial for economic growth in the 21st century as electricity was in the 20th.”⁶⁴

AT&T’s massive LTE deployment will also help close the digital divide. As a group of sixteen prominent civil rights organizations has explained in filings with the Commission, “[d]ue in part to the relative affordability of wireless offerings, wireless broadband has been a real success story for minorities.”⁶⁵ Indeed, according to numerous studies, “wireless is the only broadband technology for which minority adoption and use currently indexes at higher levels than for White Americans.”⁶⁶ A report by the Pew Internet & American Life Project, for example, found that “African Americans are the most active users of the mobile internet—and their use of it is also growing the fastest. This means the digital divide between African Americans and white Americans diminishes when mobile use is taken into account.”⁶⁷ The Pew

⁶⁴ Remarks of FCC Chairman Julius Genachowski, *The Cloud: Unleashing Global Opportunities*, Aspen IDEA Project, at 8 (Mar. 24, 2011), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305399A1.pdf.

⁶⁵ Comments of the National Organizations, GN Docket No. 09-191, at 10 (Jan. 14, 2010) (including joint comments from ASPIRA Association; Black College Communications Association; Hispanic Institute, Hispanic Technology and Telecommunications Partnership, Labor Council for Latin American Advancement; Latinos in Information Sciences and Technology Association; Lawyers’ Committee for Civil Rights Under Law, League of United Latin American Citizens; MANA, A National Latina Organization; National Association of Black County Officials; National Black Caucus of State Legislators; National Conference of Black Mayors; The National Coalition on Black Civic Participation-Black Women’s Roundtable; National Organization of Black Elected Legislative Women; National Puerto Rican Coalition; United States Hispanic Chamber of Commerce).

⁶⁶ *Id.* at 9-12.

⁶⁷ John Horrigan, *Pew Internet & American Life Project: Wireless Internet Use*, at 4 (July 2009), <http://www.pewinternet.org/~media/Files/Reports/2009/Wireless-Internet-Use-With-Topline.pdf>.

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report also found similar trends among Hispanic users of mobile broadband services.⁶⁸ As Commissioner Clyburn recently pointed out, the African American and Hispanic communities have “excelled” in their adoption of mobile broadband services, and both groups “take advantage of a much wider array of their phones’ data functions than their white counterparts.”⁶⁹

AT&T’s LTE initiative will thus be a key part of keeping these and other minority groups on the leading edge of the broadband revolution. Because LTE technology, unlike its predecessors, operates on a par with some of today’s wireline broadband platforms, LTE can play a particularly important role in the advancement of minority communities. That is why the Hispanic Institute, consistent with the experience of other minority advocates, notes that “mobile broadband access has become a key resource to help many Hispanics succeed and thrive in today’s economy. From improving health care to increasing educational opportunities and access to government resources, wireless devices, services and applications offer Hispanics a new route to take a full advantage of many life-enhancing resources.”⁷⁰ The National Coalition on Black Civic Participation has similarly pointed out that the wider availability of wireless broadband services will enhance entrepreneurial opportunities for minority- and women-owned businesses.⁷¹

⁶⁸ *Id.* at 18.

⁶⁹ Remarks of FCC Commissioner Mignon L. Clyburn, National Conference for Media Reform, Boston, MA (Apr. 8, 2011), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0408/DOC-305663A1.pdf.

⁷⁰ The Hispanic Institute & Mobile Future, *Hispanic Broadband Access: Making the Most of the Mobile, Connected Future*, at 4 (Sept. 15, 2009), http://www.thehispanicinstitute.net/files/u2/Hispanics_and_Broadband_Access_0.pdf.

⁷¹ Letter from Joycelyn Tate, Telecommunications Policy Advisor, National Coalition of Black Civic Participation – Black Women’s Roundtable, to Marlene Dortch, FCC, GN 09-51 (Feb. 25, 2010).

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In light of all these many benefits that mobile broadband holds for minorities, leading civil rights organizations have recognized the importance of “encourag[ing] investment” in wireless broadband networks and services so that “future generations of Americans, across every demographic” can participate fully in our digital society.⁷² By building out LTE to more than 97 percent of the U.S. population, AT&T will be bringing that vision a big step closer to reality.

In sum, the benefits of this deployment will not end once the LTE platform is deployed. Investment in broadband infrastructure generates dynamic economic and social value that can dramatically improve consumer welfare for years to come. LTE service will provide millions of Americans with better healthcare, greater educational and economic opportunities, and stronger engagement in civic life. As the Commission has recognized, ubiquitous, dependable and affordable broadband has become a “foundation for economic growth, job creation, global competitiveness and a better way of life.”⁷³ This transaction will help achieve that national priority.

2. The Transaction Will Help Preserve America’s Global Leadership in Mobile Broadband Innovation.

As the National Broadband Plan explains, a core Administration objective is to keep America “lead[ing] the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.”⁷⁴ The U.S. leads innovation in areas throughout the mobile broadband ecosystem, from networks to operating systems to mobile applications. That leadership arises

⁷² See, e.g., Minority Media and Telecommunications Council Reply Comments, GN Docket No. 09-157, at 3 (Nov. 5, 2009).

⁷³ *National Broadband Plan*, at xi.

⁷⁴ *Id.* at xiv.

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from a complex, virtuous cycle of innovation, in which network providers play a critical role. This transaction will help maintain that global leadership.

AT&T, in particular, has long played a central role in mobile broadband innovation. AT&T Labs is a world-class research institution that supports more than a thousand scientists and engineers, and AT&T earned more than 1,000 patents in 2010 alone. Donovan Decl. ¶ 5. Its innovations have spanned the entire wireless ecosystem from network standards to speech-recognition software. To take just one example, AT&T is a world leader in the deployment of wireless broadband networks using UMTS standards. *See id.* ¶ 19.

In this and many other respects, the innovations of wireless providers in general and AT&T in particular have triggered broader ecosystem innovations, responses, and further innovations. To win customers, wireless providers are constantly innovating to improve their mobile platforms, which, in turn, prompts others to deploy ever more innovative devices and applications. As customers adopt new devices and applications, demand for wireless service increases, thus spurring network operators to enhance their networks still further. Improved networks spur more improved devices and applications, which in turn spur still-better networks, and so on in a “virtuous cycle” of innovation. *See id.* ¶14.

Again, however, “there’s a catch. . . . [W]hile American ingenuity and our appetite for wireless technology is limitless, spectrum is not. And the coming spectrum crunch threatens American leadership in mobile and the benefits it can deliver to our country.”⁷⁵ As discussed, that spectrum crunch is hitting AT&T harder and sooner than the industry at large. And because AT&T plays a key role in supporting the cycle of mobile broadband innovation in the United States, its capacity problems could have ripple effects throughout the broadband ecosystem. By

⁷⁵ *Genachowski CTIA Remarks* at 5-6.

efficiently addressing those constraints before they prevent AT&T from helping support the next generation of innovative mobile services and applications, this transaction will be good not only for AT&T and its customers, but for America's high tech sector as a whole. Donovan Decl.

¶¶ 12-16.

C. The Transaction Will Enhance Public Safety.

Disaster preparedness has become a national imperative,⁷⁶ and AT&T has responded with best-in-class preparedness capabilities.⁷⁷ Over the last decade, AT&T has devoted unparalleled resources to America's need for effective communications in emergencies, including mobile command centers, portable cell sites known as Cells on Wheels (COWs) or Cells on Light Trucks (COLTs), a fleet of mobile generators, and mechanisms for linking mobile cell sites to satellites when landline connections go down.⁷⁸ These resources are pre-positioned around the nation and can be deployed on short notice to areas struck by emergencies. AT&T's disaster preparedness teams also have highly specialized capabilities to restore communications in the event of incidents involving chemical, biological, radiological, and other hazardous materials.

AT&T's response to Hurricane Ike in 2008 illustrates its emergency-preparedness capabilities.⁷⁹ When Ike struck Galveston, AT&T deployed 500 portable generators to power its cell sites and set up five mobile cell sites in the area. AT&T doubled the capacity of its 3G network in the Galveston area during the hurricane to ensure that emergency personnel had

⁷⁶ See The White House, *The Federal Response to Hurricane Katrina: Lessons Learned*, at 3 (2006), available at <http://www.whitehouse.gov/reports/katrina-lessons-learned.pdf>.

⁷⁷ See AT&T, *Network Disaster Recovery*, <http://www.corp.att.com/ndr/>.

⁷⁸ See AT&T, *Network Disaster Recovery, Deployment History*, <http://www.corp.att.com/ndr/deployment1.html>.

⁷⁹ See AT&T, *Network Disaster Recovery, Deployments: Hurricane Ike – Galveston Island*, http://www.corp.att.com/ndr/deployment_2008_09_galveston.html.

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reliable connectivity, and emergency personnel, Red Cross relief workers, and insurance claims adjusters could thus connect their laptops to AT&T's 3G network for data services. AT&T also dedicated a team of its employees to travel around the area with emergency personnel teams to ensure that they had the communications tools needed to respond effectively to situations as they developed. In total, AT&T deployed more than 3000 technicians and 200 construction contractors to restore communications to the Galveston area.

This transaction will enable AT&T to build on its strong track record for disaster preparedness by expanding the infrastructure and spectrum resources from which it can draw during emergencies. T-Mobile USA also has an excellent track record of disaster recovery and response over many years, as demonstrated during Hurricane Katrina in 2005.⁸⁰ T-Mobile USA additionally has significant disaster response equipment deployed across the nation, including a large fleet of mobile generators and mobile cell site equipment. AT&T's and T-Mobile USA's combined emergency-preparedness initiatives will provide customers with more robust disaster recovery capabilities than they would receive in the absence of this transaction.

II. THE TRANSACTION WILL PRESERVE AND PROMOTE COMPETITION.

The U.S. wireless marketplace is extremely competitive. By freeing the applicants from their output-suppressing capacity constraints, this transaction will leave the marketplace more dynamic and competitive than before, and the beneficiaries will be American consumers.

⁸⁰ See Press Release, T-Mobile USA, *T-Mobile Gulf Coast Wireless Network Coverage at or Near Normal Levels* (Sept. 7, 2005), <http://newsroom.t-mobile.com/articles/t-mobile-restore-hurricane-Katrina-1>; Press Release, T-Mobile USA, *T-Mobile Store Lets Katrina Victims Place Free Phone Calls* (Sept. 15, 2005), <http://www.mobiledia.com/news/36374.html>; Ed Oswald, *T-Mobile Opens Wi-Fi to Katrina Victims*, Betanews (Aug. 31, 2005), <http://www.betanews.com/article/T-Mobile-Opens-WiFi-to-Katrina-Victims/1125506464>.

A. The U.S. Wireless Marketplace Is Exceptionally Dynamic and Competitive.

By a broad range of metrics, the mobile marketplace ranks among the most dynamic and competitive sectors of the American economy:

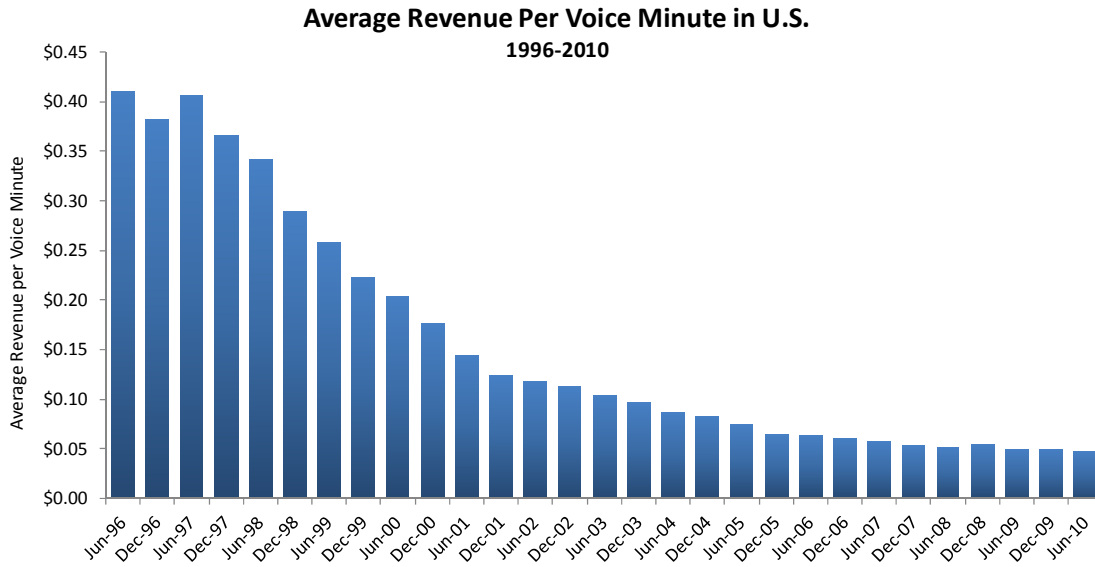
First, industry output has been exploding. As discussed in Section I.A above, American consumption of wireless network capacity has increased many times over since 2007, and will increase many times over again by 2015, all at an accelerating pace.

Second, just as *quantity* has increased, so too has the paradigm-shattering *dynamism* of wireless services. As the Chairman observes: “In just a matter of years, those brick [1G] phones have evolved into 4-ounce mini-computer smartphones” with “more computing power than NASA’s lunar module”; mobile broadband applications rank among “the most remarkable forces for economic opportunity and quality of life that we’ve ever seen”; “[r]obust networks and powerful devices are allowing us to do all kinds of things we could barely have imagined a few years ago”; and “[i]t’s hard to imagine an industry that’s produced more game-changers than the wireless industry.”⁸¹

Third, wireless prices have been falling across the board for many years, amid “industry consolidation” that enabled providers to “exploit economies of scale” and thereby “offer more wireless services for similar or lower prices.”⁸² For example, the average revenue per voice minute has fallen from approximately 41 cents in June 1996 to less than a nickel in June 2010:

⁸¹ Genachowski CTIA Remarks, at 2, 4.

⁸² GAO, *Telecommunications: Enhanced Data Collection Could Help FCC Better Monitor Competition in the Wireless Industry*, at 24 (July 2010) (“GAO 2010 Report”); see Carlton Decl. ¶ 15.



Source: Figures based on application of FCC methodology to CTIA data; FCC, *Fourteenth CMRS Competition Report*, Table 19, pp.112-114; CTIA, *CTIA's Wireless Industry Indices Mid-Year 2010 Results*, November 2010: Table 34, p. 94; Table 35, p. 95; Table 52, pp. 121-122; Table 78, pp. 187-88; Table 86, pp. 204-205.

As the GAO confirmed last year, “the overall average price (adjusted for inflation) for wireless services declined each year from 1999 to 2008,” and “the average price for wireless service in 2009 was approximately 50 percent of the price in 1999.”⁸³ Average industry revenue per text message fell even faster—by more than 70 percent between 2005 and 2008 (from \$0.037 to \$0.011).⁸⁴ And the quantity-adjusted price of a wireless broadband plan, measured by average revenue per megabit, has plummeted most dramatically of all. For example, AT&T’s average revenue for one megabyte of data service has dropped almost **[Begin Confidential Information]** **[End Confidential Information]** percent since 2007 (Carlton Decl. ¶ 17):

⁸³ GAO 2010 Report, at 24.

⁸⁴ Fourteenth Wireless Report, 25 FCC Rcd at 11532 ¶ 192.

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Fourth, providers are not resting on today's successes, but are constantly investing in advanced network infrastructure to support tomorrow's high-bandwidth services. For example, AT&T invested approximately \$21.1 billion between 2008 and 2010 to upgrade and expand its wireless network. Carlton Decl. ¶ 136. Similarly, other major wireless providers—from Verizon to MetroPCS to Leap to Clearwire—have invested billions of dollars in capital upgrades over the past several years, amid the worst recession in decades. This continued and increasing investment underscores the dynamism and competitiveness of the U.S. wireless marketplace. Indeed, this sector has been one of the few bright spots in a still-challenged economy.

Fifth, wireless providers are not only spending billions to improve service; they are also vigorously advertising those improvements to differentiate themselves in the marketplace and win customers. As everyone who watches television or reads a newspaper is aware, wireless providers of all stripes are engaged in unremitting advertising campaigns, touting their network

quality, high speeds, devices, and attractive pricing plans. Indeed, except for the automotive industry, the telecommunications sector (wireline and wireless) outspends every other on advertising.⁸⁵ And “wireless service providers” in particular “spend more on advertising than firms in many other industries.”⁸⁶

Sixth, competition is both fierce and multi-dimensional, as providers try to win customers with the most attractive combinations of price, service quality, speeds, devices, and operating systems. In the next section, we discuss in greater detail how network service providers compete along these various dimensions. Yet handset and operating system competition further underscores the dynamism and competitiveness of the mobile broadband ecosystem. Wireless providers offer consumers an ever-expanding array of handset options to win and keep their business, and U.S. consumers can now choose among *more than 600* handsets produced by dozens of independent handset manufacturers, including Apple, Dell, HTC, Kyocera, LG, Motorola, Nokia, Palm, Pantech, RIM, Samsung, Sharp, and Sony Ericsson.⁸⁷ These handsets have widely varying features to accommodate all tastes, including appealing form factors, high-resolution color screens, user-friendly interfaces, simple-to-use features, high-quality cameras, Bluetooth and Wi-Fi connectivity, and the ability to run hundreds of thousands of applications written by third parties.

⁸⁵ See Kantar Media Reports *U.S. Advertising Expenditures Increased 6.5 Percent in 2010* (Mar. 17, 2011), <http://kantarmediana.com/intelligence/press/us-advertising-expenditures-increased-65-percent-2010>.

⁸⁶ *Fourteenth Wireless Report*, 25 FCC Rcd at 11492 ¶ 129.

⁸⁷ See CTIA, *The United States and World Wireless Markets: Competition and Innovation are Driving Wireless Value in the U.S.*, at 11 (May 2009), attached to Letter from Christopher Guttman-McCabe, Vice President of Regulatory Affairs, CTIA – The Wireless Association, to Marlene Dortch, FCC, GN Docket No. 09-51 (May 12, 2009).

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Wireless providers also compete vigorously to offer a diverse selection of operating systems, including Android, Windows Mobile, BlackBerry OS, Apple iOS, Nokia Symbian, and Palm OS. This intense competition is perhaps best illustrated by the rapid ascent of Google’s Android operating system. Although it was formally introduced just over three years ago, Android has now become the “most popular smartphone operating system in the United States.”⁸⁸ Android’s success arises both from its innovativeness and from Google’s parallel development of the Android Market, which now boasts more than 150,000 Android-compatible apps.⁸⁹ Android’s extraordinarily rapid growth is also due to the fierce rivalry among wireless service providers, which have added a host of Android-based handsets to their device portfolios and aggressively marketed them to consumers. Indeed, AT&T alone plans to launch twelve new Android devices in 2011.⁹⁰

In short, competition among service providers, handset manufacturers, and operating system developers is strong and mutually reinforcing. All of these firms are constantly creating new services and products—and forming new strategic partnerships and alliances to market those products and services—to keep ahead of their competitors and deliver the most compelling products to consumers.

⁸⁸ Ian Paul, *Android Edges RIM, Apple as Most Popular Smartphone OS*, PC World (Mar. 4, 2011) (citing market analysis by Nielsen), http://www.pcworld.com/article/221358/android_edges_rim_apple_as_most_popular_smartphone_os.html.

⁸⁹ Andrew Kameka, *Android has 150k apps, 350k daily activations, and more notes from Eric Schmidt’s MWC keynote*, Androinica (Feb. 15, 2011), <http://androinica.com/2011/02/android-has-150k-apps-350k-daily-activations-and-more-notes-from-eric-schmidts-mwc-keynote/>.

⁹⁰ Press Release, *AT&T Announces Plans to Deliver Nation’s Most Advanced Mobile Broadband Experience* (Jan. 5, 2011), <http://www.att.com/gen/press-room?pid=18885&cdvn=news&newsarticleid=31477&mapcode=wireless-networks-general|consumer>.

B. The Marketplace for Wireless Services Will Remain Highly Competitive Following This Transaction.

As indicated by all of these market characteristics—falling prices, accelerating output, technological dynamism, surging investment, ubiquitous advertising wars, and multi-dimensional competition—the U.S. wireless marketplace ranks among the most competitive in the U.S. economy. It will remain so after this merger. We discuss that issue in extensive detail below, but several points warrant emphasis at the outset.

First, approximately three-quarters of Americans live in areas where they may choose among *at least five* facilities-based wireless providers.⁹¹ That figure, which the Commission calculated last year, does not include mobile virtual network operators (“MVNOs”) such as TracFone. Nor does it include new facilities-based entrants such as LightSquared, which has struck deals with Best Buy and others to use its substantial spectrum holdings to serve potentially millions of customers.

Second, T-Mobile USA and AT&T are not close competitors, and other providers already fill—or could easily move to fill—the competitive role T-Mobile USA occupies today. For example, Sprint has re-emerged with a combination of first-to-market 4G services, attractive devices, and aggressive pricing. MetroPCS and Leap offer inexpensive, no-contract service with nationwide coverage; have rapidly expanded into markets covering (between them) more than 200 million people; and have won dramatic gains in total subscribership. *See* Carlton Decl. ¶ 102; Christopher Decl. ¶¶ 60-62. According to AT&T’s estimates, MetroPCS has now surpassed T-Mobile USA in subscribership in many major markets, including [Begin

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⁹¹ *Fourteenth Wireless Report*, 25 FCC Rcd at 11448-49 ¶¶ 42-45.

Information]. *See* Christopher Decl. ¶ 61. These new mavericks not only appeal to the value-conscious consumers that have long constituted T-Mobile USA’s base, but have aggressively rolled out new smartphone services. For example, the first LTE provider in the United States was not Verizon, but MetroPCS.

In contrast, T-Mobile USA is—in the words of DT Senior Vice President Thorsten Langheim—“struggling to remain a strong competitor in the wireless marketplace. Despite marketing efforts to improve its standing, T-Mobile USA has steadily lost market share . . . over the past two years.” Langheim Decl. ¶ 11. T-Mobile USA has faltered because, among its other challenges, it occupies an uncomfortable position between higher-end providers and value competitors. Christopher Decl. ¶ 46. On the one hand, it has been undersold by MetroPCS, Leap, and others in the provision of budget-oriented services. *Id.* And on the other hand, it “lacks a clear path to deployment of LTE that is necessary for it to compete robustly in the U.S. longer term,” particularly for high-end mobile broadband services. Langheim Decl. ¶ 11. In Professor Carlton’s words, “T-Mobile’s competitive position is probably best summarized in J.P. Morgan’s recent comment that T-Mobile is ‘struggling for relevance.’”⁹² For all of these reasons, it is not a significant competitive constraint on AT&T. *See* Christopher Decl. ¶¶ 23-27.

Third, as Professor Carlton further explains in his attached declaration, an economically sensible way to promote greater output, higher quality, and lower prices in capacity-constrained industries such as this one is to permit an efficient capacity-enhancing combination. Carlton Decl. ¶ 158. Blocking such combinations would have the opposite effects: lower output, worse quality, and higher prices. As Chairman Genachowski recently observed, “[i]f we do nothing in

⁹² Carlton Decl. ¶ 130 (quoting J.P. Morgan, North America Equity Research, *U.S. Telecom Services & Towers*, at 18 (Jan. 13, 2011) (“*J.P. Morgan January 2011 Analysis*”)).

the face of the looming spectrum crunch, many consumers will face higher prices—as the market is forced to respond to supply and demand[.]”⁹³ Although the Chairman was addressing the need to free up more spectrum through auctions in the long term, his reasoning applies equally to this transaction, which, as discussed, creates the functional equivalent of more spectrum.

1. The Commission Should Adhere to Its Current Market-Definition Conclusions, but the Existing Screens Should Be Modified to Reflect New Sources of Commercially Available Spectrum.

The Commission begins its competitive analysis of wireless transactions by defining the appropriate product market, geographic markets, and market participants. As to the first issue, the Commission “treat[s] the provision of mobile broadband services using more recent and advanced networks (*e.g.*, 3G, 4G) and the provision of mobile voice and data services over earlier generations of wireless networks as part of a combined mobile telephony/broadband services market, rather than separate markets,” now that the industry is “transitioning from the provision of interconnected mobile voice and add-on mobile data services over legacy wireless networks to the provision of mobile voice and data services over wireless broadband networks.”⁹⁴

Second, the Commission has repeatedly concluded that the geographic market is local rather than national and consists of CMAs or, alternatively, “Component Economic Areas (“CEAs”).”⁹⁵ As the Commission has explained, “the geographic market is the area within which

⁹³ *Genachowski CTIA Remarks*, at 9.

⁹⁴ *Verizon/ALLTEL Order*, 23 FCC Rcd at 17470 ¶ 47; *accord* Memorandum Opinion and Order, *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation for Consent to Transfer Control of Licenses and Authorizations*, 19 FCC Rcd 21522, 21562-63 ¶ 89 (2004) (“*Cingular/AT&T Wireless Order*”).

⁹⁵ See *Verizon/ALLTEL Order*, 23 FCC Rcd at 17471 ¶ 49; Memorandum Opinion and Order and Declaratory Ruling, *Applications of Cellco Partnership D/B/A Verizon Wireless and*

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a consumer is most likely to shop for mobile telephony/broadband services,” and “[f]or most individuals, this market will be a local area, as opposed to a larger regional or nationwide area.”⁹⁶ The Department of Justice has likewise concluded that mobile services are offered in “numerous *local* geographic markets,” given that, among other considerations, customers generally choose among providers that market services “where they live, work, and travel on a regular basis” and “[t]he number and identity of . . . providers varies among geographic areas[.]”⁹⁷

AT&T’s own market research confirms these conclusions. The great majority of AT&T’s new customers—some **[Begin Confidential Information]** **[End Confidential Information]** percent—purchased their wireless service locally, either through a company-owned store, local outlets of chain stores such as Radio Shack, Best Buy, Target, AT&T agent stores, or other local retail stores. *See* Christopher Decl. ¶ 12. Independent studies reach similar conclusions about the industry at large: local sales (at a store or kiosk) account for

Rural Cellular Corporation for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager Leases and Petitions for Declaratory Ruling, 23 FCC Rcd 12463, 12485 ¶ 41 (2008) (“*Verizon/RCC Order*”); Memorandum Opinion and Order, *Applications of AT&T Inc. and Dobson Communic’ns Corporation for Consent to Transfer Control of Licenses and Authorizations*, 22 FCC Rcd 20295, 20310 ¶ 25 (2007) (“*AT&T/Dobson Order*”); Memorandum Opinion and Order, *Application of Great Western Cellular Partners, LLC and Alltel Communic’ns, Inc. for Consent to transfer Control of License*, 21 FCC Rcd 11526, 11545-49 ¶¶ 35-43 (2006) (“*Midwest Wireless Order*”); Memorandum Opinion and Order, *Applications of Western Wireless Corporation and Alltel Corporation for Consent to Transfer Control of Licenses and Authorizations*, 20 FCC Rcd 13053, 13072-75 ¶¶ 44-51 (“*Western Wireless Order*”); Memorandum Opinion and Order, *Applications Nextel Communic’ns, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations*, 20 FCC Rcd 13991-95 ¶¶ 57, 63-67 (2005) (“*Sprint/Nextel Order*”); *Cingular/AT&T Wireless Order* at 21567-69 ¶¶ 104-112.

⁹⁶ *Verizon/ALLTEL Order*, 23 FCC Rcd at 17472 ¶ 52.

⁹⁷ Complaint, *United States v. AT&T Inc.*, Civ. No. 1:09-cv-01932-JDB, at ¶ 15 (D.D.C. filed Oct. 13, 2009) (emphasis added).

approximately [Begin Confidential Information] [End Confidential Information] percent of industry-wide total sales and, indeed, approximately [Begin Confidential Information] [End Confidential Information] percent of MetroPCS's sales. *Id.*

Further underscoring the local nature of this marketplace, AT&T has tailored its sales operations to respond quickly and distinctively to local market conditions. AT&T Mobility's Chief Marketing Officer, David Christopher, explains:

AT&T has divided the country into twenty-seven separate geographic regions, each led by a vice president/general manager ("VP/GM") who is responsible for operations of the [AT&T] stores, our relationships with AT&T's local dealer agents at the local level, and all other sales activities within their respective markets. In fact, the annual performance of these VP/GMs is evaluated, in part, by the profits and losses associated with all sales activity within their markets. They strive to meet unique local customer demand by working with our headquarters marketing team to run local advertising pointing out the advantages of AT&T service in a specific local area, by direct marketing campaigns, and by offering local promotions on handsets and peripheral devices. To further support this effort, our direct mail direct response . . . and online marketing and sales efforts are capable of making targeted offers to customers in specific local market areas.

Id. ¶ 13. Similarly, because T-Mobile USA's own experience confirms that customers prefer to make purchasing decisions locally, it recently reorganized its sales staff by local region to address local market conditions most effectively. In any event, as Professor Carlton concludes, this transaction will create such output-expanding, pro-consumer synergies that it would warrant approval even if competition were (improperly) analyzed at the national level. Carlton Decl. ¶¶ 8, 12.

Third, the Commission has concluded that the market participants for purposes of its competitive analysis include "facilities-based" entities providing mobile telephony/broadband

services.⁹⁸ Those participants include every provider that serves customers within a given geographic market, irrespective of how many other geographic markets that provider also serves. As discussed below, a number of major U.S. providers are called “regional” in the narrow sense that they have networks and recruit customers in only a subset of the nation’s hundreds of geographic markets. Key providers in this category have nonetheless entered into wholesale roaming agreements throughout other markets in order to offer *nationwide* service plans: *i.e.*, seamless coverage in most or all population centers throughout the United States, generally without retail roaming fees. *See* Carlton Decl. ¶¶ 9, 102, 104, 113, 115; Christopher Decl. ¶¶ 8, 63. These providers compete in the same *product* market as carriers that market nationally, even though they compete in only some of the local *geographic* markets. *See* Carlton Decl. ¶¶ 112-115; Christopher Decl. ¶ 9.⁹⁹

The Commission next applies a two-part initial “screen” to separate those local markets where, without further analysis, it is clear that the transaction would result in no potential competitive harm, from those local markets where further competitive analysis is required to determine whether the transaction would promote or harm consumer welfare.

HHI Screen. The first part of the screen considers changes in market concentration in the provision of mobile telephony/broadband services as a result of the proposed transaction, and is based on the size of the post-transaction Herfindahl-Hirschman Index (“HHI”) of market concentration and the change in the HHI. Under the analysis used in recent Commission orders,

⁹⁸ *See, e.g., Verizon /ALLTEL Order*, 23 FCC Rcd at 17480-81 ¶ 71.

⁹⁹ *See also Cingular/AT&T Wireless Order*, 19 FCC Rcd at 21564 ¶ 94 (including within relevant product market all firms “able to offer nationwide service,” including “nationwide carriers” and “regional firms,” but excluding providers “unable to offer national mobile telephony services”).

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a market is subject to further scrutiny if, based on the NRUF data, its post-transaction HHI (1) would be both greater than 2800 and increase by at least 100, or (2) would increase by at least 250.¹⁰⁰ As discussed in detail below, this merger, even in the markets flagged by the HHI screen, poses no substantial competitive concern because, in addition to the merger’s output-enhancing effect, the combined company will face vigorous competition from diverse providers and, in any event, T-Mobile USA is not a particularly close competitor to AT&T.

Spectrum screen. The second part of the market-by-market screen examines the input market for spectrum available for the provision of mobile telephony/broadband services. In past transactions—which (as discussed below) predated the deployment of new spectrum for mobile broadband purposes—the Commission designed the spectrum screen to include spectrum bands designated for cellular, PCS, Specialized Mobile Radio (“SMR”), and 700 MHz services, as well as AWS-1 and 55.5 MHz of Broadband Radio Service (“BRS”) spectrum where available. The screen ranges from 95 MHz to 145 MHz, depending on the availability of AWS-1 and BRS.¹⁰¹ If the Commission used this approach here, despite its obsolescence, 202 CMAs would be flagged by the spectrum screen and subject to further analysis.¹⁰² Spectrum aggregation data is provided in Appendix A. Again, this screen is only the starting point in the Commission’s analysis, and the remainder of that analysis confirms that the overwhelming majority of the markets at issue will retain both several strong competitors—indeed, at least four in more than 80

¹⁰⁰ See, e.g., *Verizon /ALLTEL Order*, 23 FCC Rcd at 17483 ¶ 78.

¹⁰¹ *Id.*

¹⁰² The Commission has asked AT&T in pending spectrum-transfer proceedings to provide data concerning its holdings of the 25 MHz of WCS spectrum, which a recent Commission order intended to make usable for mobile broadband services. See Report and Order and Second Report and Order, *Amendment of Part 27 of the Comm’n’s Rules To Govern the Operation of Wireless Commc’ns Servs. in the 2.3 GHz Band*, 25 FCC Rcd 11710 (2010) (recons. filed). Those data are included in Appendix A.

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percent of these CMAs—and ample spectrum resources to support further growth. Appendices B and C provide further details on competitive conditions in these CMAs.

In any event, the current spectrum screen substantially overstates potential threats to competition because it excludes much of the spectrum currently available for mobile telephony and broadband services. The Commission should now update this analysis in two respects. First, it should include 90 MHz of MSS/ATC spectrum within the screen because, as the Commission itself found just this month, MSS/ATC providers will soon “provide mobile services similar to those provided by [other] mobile providers” and should thus be considered “in the context of our existing competitive analysis framework for mobile telephony/broadband services.”¹⁰³ Indeed, LightSquared plans to begin the rollout of wholesale mobile broadband service using MSS/ATC spectrum in 2011, as soon as the Commission resolves GPS interference issues, and its network is expected to encompass 100 million Americans by year-end 2012, 145 million by year-end 2013, and 260 million by year-end 2015.¹⁰⁴ Second, the Commission should include *all* 194 MHz of BRS/EBS spectrum (not just the 55.5 MHz it has considered before) because the BRS/EBS transition is complete in most areas of the country, and because Clearwire and its partners (including Sprint and Time Warner Cable) are making widespread use of WiMAX service throughout the country, now passing more than 100 million people.

In short, these broader spectrum categories easily “meet the criteria for suitable spectrum within two years” and are thus appropriately considered “a relevant input” for purposes of the

¹⁰³ Report and Order, *Fixed and Mobile Servs. in the Mobile Satellite Service Bands*, FCC No. 11-57, ET Docket No. 10-142, at ¶ 23 (Apr. 6, 2011).

¹⁰⁴ LightSquared, *Nationwide LTE Broadband Network*, <http://www.lightsquared.com/what-we-do/network/>.

Commission’s spectrum screen.¹⁰⁵ AT&T has addressed these points in detail in its public interest statement in the AT&T-Qualcomm proceeding and incorporates that discussion by reference here.¹⁰⁶

2. The Combined Company Will Face Strong Competition From Many Sources.

Whatever the results of the initial screens, the Commission’s merger analysis ultimately asks whether a transaction will give rise to a substantial prospect of either anticompetitive coordination or anticompetitive unilateral effects. The nature and extent of competition in U.S. wireless markets foreclose either concern here, as discussed below. We begin by describing the strong competitors that the combined company will continue to face after this transaction is complete. These include not only providers that market service to customers living in most U.S. markets, but also “regional” providers that market only where they operate networks. Again, providers in *both* categories offer their customers *nationwide* service plans.

Verizon Wireless is the nation’s largest wireless provider with a leading reputation for high-quality network performance, and it competes with AT&T in almost every local market. It has an exceedingly robust spectrum position. In addition to its other 700 MHz band holdings, Verizon Wireless has 22 MHz of upper 700 MHz band spectrum nationwide for its ongoing LTE deployment.

Verizon Wireless often targets AT&T in its commercials and asserts that Verizon’s network is superior to AT&T’s more congested counterpart. Christopher Decl. ¶ 28. Verizon is

¹⁰⁵ *Verizon/ALLTEL Order*, 23 FCC Rcd at 17477 ¶ 62.

¹⁰⁶ Public Interest Statement, *Application of AT&T Mobility Spectrum LLC and Qualcomm Inc. for Consent to Assign Eleven Lower 700 MHz Band Licenses*, WT Docket No. 11-18, at 21-28 (Jan. 13, 2011).

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using its nationwide 700 MHz footprint to aggressively deploy 4G LTE, which it says will cover two-thirds of Americans by mid-2012.¹⁰⁷ Verizon also states that it will offer a suite of 10 devices for its 4G LTE network that will be available by mid-2011.¹⁰⁸ Verizon claims to face no systemic constraints on its network capacity. Indeed, in the wake of this transaction's announcement, Verizon Wireless's CEO reaffirmed that his company is "extremely confident" it has the "spectrum position" it needs.¹⁰⁹

Sprint has reversed recent trends and, in 2010, achieved successes that CEO Dan Hesse called "unprecedented in the history of the U.S. wireless industry."¹¹⁰ Sprint added nearly 1.8 million net subscribers in 2010, including nearly 1.1 million during the fourth quarter of 2010 alone, for a total of approximately 50 million.¹¹¹ Along with Verizon Wireless and U.S. Cellular, Sprint fared well in Consumer Reports's recent survey of customer satisfaction, and it is now rapidly increasing market share with its 4G service. See Carlton Decl. ¶¶ 96-100; Christopher Decl. ¶ 30. Sprint's success contrasts sharply with T-Mobile USA's own recent performance:

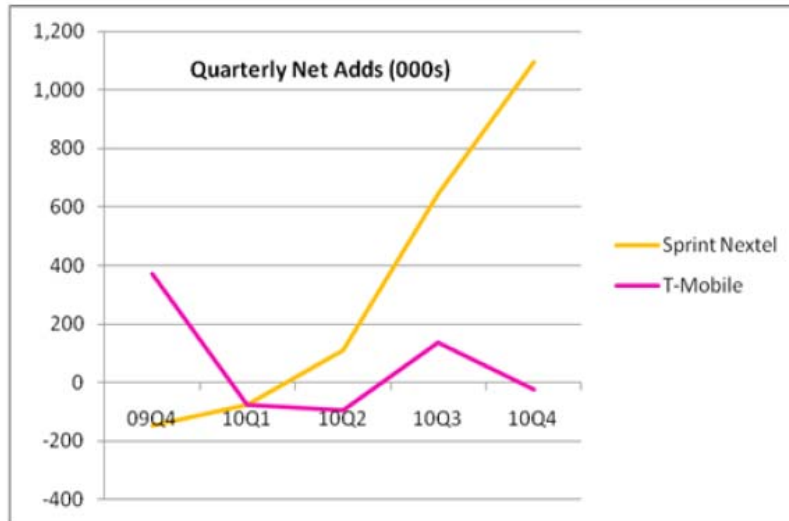
¹⁰⁷ Press Release, Verizon Wireless, *Verizon Wireless Unveils Suite of 4G LTE Smartphones, Tablets, a Mi-Fi, Hotspot and Notebooks* (Jan. 6, 2011), <http://news.vzw.com/news/2011/01/pr2011-01-06n.html>.

¹⁰⁸ *Id.*

¹⁰⁹ *Verizon and Sprint react to US mega deal*, Mobile Business Briefing, Mar. 22, 2011 (quoting CEO Dan Mead), <http://www.mobilebusinessbriefing.com/article/verizon-and-sprint-react-to-us-mega-deal>. As Verizon Wireless's CTO added: "We added enormous capacity to the network in one fell swoop. It is there waiting for us to grow into it." *Report: Verizon to Offer Unlimited iPhone Plans*, DailyTech (Jan. 10, 2011) (quoting Anthony J. Melone), <http://www.dailytech.com/Report+Verizon+to+Offer+Unlimited+iPhone+Plans/article20614.htm>.

¹¹⁰ Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results*, at 2 (Feb. 10, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1796.

¹¹¹ *Id.* at 1, 11.



Sprint’s resurgence is attributable to several factors. First, it was the first to market with a 4G product. In partnership with Clearwire (in which it has a majority ownership stake), Sprint is aggressively rolling out its 4G/WiMAX network, which now reaches well more than 100 million people.¹¹² Sprint touted these leading-edge network capabilities to consumers in aggressive marketing campaigns throughout 2010, vigorously promoting “the First 4G Phone.”¹¹³ And Sprint appears to have delivered on its network performance promises to customers, **[Begin Confidential Information]**

[End

Confidential Information]. Christopher Decl. ¶ 30. Indeed, Sprint CEO Dan Hesse has taken aim at AT&T’s HSPA+ products by touting Sprint’s services as “4G, not faux G.”¹¹⁴

¹¹² Sprint recently reached a new wholesale agreement with Clearwire for access to Clearwire’s 4G network. See Roger Cheng, *Sprint to Pump \$1 Billion Into Clearwire*, Wall St. J. (Apr. 19, 2011). According to Clearwire’s interim Chief Executive, John Stanton, the agreement reaffirms the companies’ relationship, as well as the strength of their combined spectrum position. *Id.*

¹¹³ E.g., Sprint, *Sprint HTC EVO™ 4G*, <http://now.sprint.com/firsts/evo4g/#/evo4g/>.

¹¹⁴ Roger Cheng, *Sprint CEO Touts 4G Devices, “Not Faux G,”* WSJ Blog (Mar. 22, 2011), <http://blogs.wsj.com/digits/2011/03/22/sprint-ceo-touts-4g-devices-not-faux-g/>.

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Second, Sprint has achieved this early 4G success in part because of its exceptional spectrum position, which is far stronger than AT&T's today. As Hesse explains, “[w]hen you combine Sprint’s spectrum position with Clearwire’s spectrum position it put[s] us in the strongest place for the future.”¹¹⁵ He added: “We have the spectrum resources where we could add LTE if we choose to do that, on top of the WiMAX network. The beauty of having a lot of spectrum is we have a lot of flexibility.”¹¹⁶ A senior Sprint executive recently announced that Sprint might well use that flexibility to “deploy LTE as part of its Network Vision network modernization project . . . , with nationwide LTE coverage by year-end 2013.”¹¹⁷

Third, Sprint has accompanied this strong network performance with its highly popular suite of award-winning Android handsets, including the HTC EVO 4G, HTC EVO Shift 4G, and Samsung Epic 4G. Christopher Decl. ¶ 34. Sprint is also reportedly gearing up to include eighteen 4G-enabled devices within its portfolio by the end of this year. *Id.*

¹¹⁵ *Hesse Keynote, supra.* Clearwire has an average spectrum position of approximately 140 MHz across its national spectrum footprint and of approximately 160 MHz across the 100 largest markets. Clearwire Corporation, Annual Report (2010 Form 10-K), at 3 (Feb. 22, 2011). Combined with its own spectrum, this gives Sprint access to an average of more than 190 MHz nationwide, *Fourteenth Wireless Report*, 25 FCC Rcd at 11569, Table 26 (showing Sprint with average holdings of 52.5 MHz) and more than 260 MHz in some markets. *See, e.g.,* Public Interest Statement, *Sprint Nextel Corporation and Clearwire Corporation*, WT Docket 08-94, Appx. D, at 48, 52 (June 1, 2008) (showing that, in Dallas County, Texas, Clearwire has 186 MHz of 2.5 GHz spectrum and Sprint has 77.75 MHz of non-2.5 GHz spectrum).

¹¹⁶ *Sprint’s 4G Move, supra; see also* Marguerite Reardon, *CTIA Day 1: Where’s T-Mobile; talk of spectrum crunch*, CNET News (Mar. 22, 2011), http://reviews.cnet.com/8301-12261_7-20046096-10356022.html#ixzz1IfWvLnt8 (quoting Sprint’s Senior Vice President of Networks, Bob Azzi: “[w]e are well positioned with Clearwire in terms of spectrum[.]”); Scott Cendrowski, *Why Sprint stock can double*, CNNMoney.com (Mar. 25, 2011) (quoting Greenlight Capital’s David Einhorn: because “Sprint has more than three times the spectrum for 4G than Verizon or AT&T,” it could have “a huge advantage going forward”), http://money.cnn.com/2011/03/24/pf/sprint_stock_comeback.fortune/?section=magazines_fortune.

¹¹⁷ Sue Marek, *Sprint could deploy LTE nationwide by year-end 2013*, FierceWireless (Mar. 2, 2011), <http://www.fiercewireless.com/story/sprint-could-deploy-lte-nationwide-year-end-2013/2011-03-02>.

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Fourth, Sprint has lured subscribers away from its rivals not only with faster data speeds, but also with aggressively priced unlimited data plans. For example, Sprint targeted AT&T's iPhone users when highlighting a substantial price difference between AT&T's plans and Sprint's \$69.99 *Everything* unlimited data plan. Christopher Decl. ¶¶ 41-42. Overall, Sprint's strategy appears to have succeeded. In every month since October 2010, **[Begin Confidential Information]**

[End Confidential Information]. *Id.* ¶ 43.

MetroPCS and *Leap* (discussed below) have now become the industry's leading "maverick[s]," a term that does not apply to providers that, like T-Mobile USA, are losing share. *See* Carlton Decl. ¶ 154. MetroPCS and Leap each offer unlimited ("all you can eat") voice and data plans to value-oriented customers at low rates and on a no-contract basis. They are taking an "increasing percentage" of subscribers from "the postpaid contract world,"¹¹⁸ prompting other major providers, including AT&T, to make competitive responses. *See* Christopher Decl. ¶¶ 48-49, 59-62. Indeed, MetroPCS and Leap are now mentioned in the same breath with AT&T, Verizon Wireless, Sprint, and T-Mobile USA.¹¹⁹ And in a growing number of markets, these providers—and MetroPCS in particular—are estimated to have surpassed T-Mobile USA in both

¹¹⁸ Final Transcript, *PCS—MetroPCS Communications, Inc. at Morgan Stanley Technology, Media & Telecom Conference*, at 8 (Mar. 3, 2011) ("*Metro PCS Morgan Stanley Conference Transcript*") (MetroPCS CFO Braxton Carter: "And we have seen [an] increasing percentage of our gross adds coming from the lower part of the postpaid contract world. I think, Tom on our year-end call mentioned roughly a third of our customers are coming from that. And I think it's a natural evolution."); *see also* Carlton Decl. ¶ 109.

¹¹⁹ For example, Sprint CFO Bob Brust recently remarked: "Retail is a tough place. I mean, we have got a *lot of retail competition* out there, and for [Clearwire] to jump in to that may not be the easiest thing in the world. You've got *Verizon, and AT&T and us and T-Mobile, and Leap and Metro and this, that, and everything else*, so that's a long putt." Final Transcript, S—Sprint Nextel Corporation at Bank of America Merrill Lynch Media, Communications & Entertainment Conference, at 12 (Sept. 15, 2010) (emphasis added).

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subscriber share and competitive significance. They can quickly fill any market gap T-Mobile USA leaves upon the completion of this transaction.

Since 2002, MetroPCS has grown from roughly 500,000 subscribers to approximately 8.1 million subscribers today—a sixteen-fold increase in nine years. *See* Christopher Decl. ¶ 60. In September 2008, MetroPCS signed a long-term mutual roaming agreement with Leap and now offers service for a flat monthly fee, without retail roaming charges, in areas covering approximately 90 percent of the U.S. population.¹²⁰ In the words of CFO Braxton Carter, MetroPCS has “a nationwide footprint . . . that really puts us on par from a footprint standpoint on a combined network that is *actually a tad bit larger than the Sprint network*”:¹²¹

¹²⁰ Carlton Decl. ¶ 104; Press Release, *Leap Wireless International, Inc. and MetroPCS Communications, Inc. Enter into National Roaming Agreement and Spectrum Exchange Agreement and Settle Litigation* (Sept. 29, 2008), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1203113&highlight=>; *see* MetroPCS Coverage Map, <http://www.metropcs.com/coverage>; Metro USA FAQs, <http://www.metropcs.com/plans/metrousa/faq.aspx>; MetroPCS Rate Plans, <http://www.metropcs.com/plans/default.aspx?tab=family>.

¹²¹ Final Transcript, *PCS—MetroPCS Communications, Inc. at Raymond James Institutional Investors Conference*, at 1 (Mar. 7, 2011) (emphasis added). MetroPCS’s own facilities cover approximately 100 million people. *See Metro PCS-Transcript Morgan Stanley Conference* at 8.



MetroPCS’s success is equally striking when one considers its share of subscribers in the particular local markets it has entered. According to AT&T’s estimates, MetroPCS has won approximately a **[Begin Confidential Information]** **[End Confidential Information]** percent share of the Miami market and double-digit shares of such major markets as **[Begin Confidential Information]** **[End Confidential Information]**. Christopher Decl. ¶ 61.¹²² And it is rapidly expanding into new markets, including New York, Los Angeles, Boston, and Philadelphia. *Id.* ¶¶ 54, 61. AT&T’s estimates further indicate that MetroPCS’s share exceeds that of T-Mobile USA in many markets, including **[Begin Confidential Information]**

[End Confidential Information]. *Id.* ¶ 61.

¹²² The market-share discussion in this section reflect a provider’s share of subscribers within the relevant “designated market areas” (“DMAs”).

MetroPCS has achieved this success because of, among other considerations, its low prices and formidable local distribution network. *See id.* ¶¶ 13, 61.

Although MetroPCS has traditionally focused on selling inexpensive voice plans to value-oriented customers, it has now aggressively entered the 4G race; indeed, it was the first provider to offer a commercial LTE service. It now offers LTE in at least the following markets: Atlanta, Jacksonville, Miami, Orlando, Boston, Dallas-Fort Worth, Detroit, Las Vegas, Los Angeles, New York City, Philadelphia, Sacramento, and San Francisco. Christopher Decl. ¶ 54. According to MetroPCS CEO Roger Linquist, the company “will finish ‘phase one’ of its LTE buildout by the first quarter of [2011], and will then cover most all of the carrier’s customers with the 4G technology ‘[P]hase two’ of MetroPCS’ LTE buildout will be completed by the end of next year, and will involve putting LTE onto all of the carrier’s 11,000 cell sites.”¹²³

MetroPCS recently rolled out new smartphone plans that provide access to its 4G network, which one analyst has called “the best value for data at the high-end.”¹²⁴ In CFO Carter’s words, “[t]here is a tsunami of Androids coming through[,]” driving Metro’s “heavy users to . . . higher ARPU rate plans.”¹²⁵ He added in early March 2011 that, even though “[t]he Androids have been out a little while longer than two months now, . . . a third of our sales [have been] the Androids handsets” so far this year.¹²⁶ CEO Linquist recently reaffirmed his

¹²³ Mike Dano, *MetroPCS details LTE buildout plans for 2011, open to LightSquared*, FierceWireless (Sept. 22, 2010), <http://www.fiercewireless.com/story/metroPCS-details-lte-buildout-plans-2011-open-LightSquared/2010-09-22#ixzz1HungmW5B>.

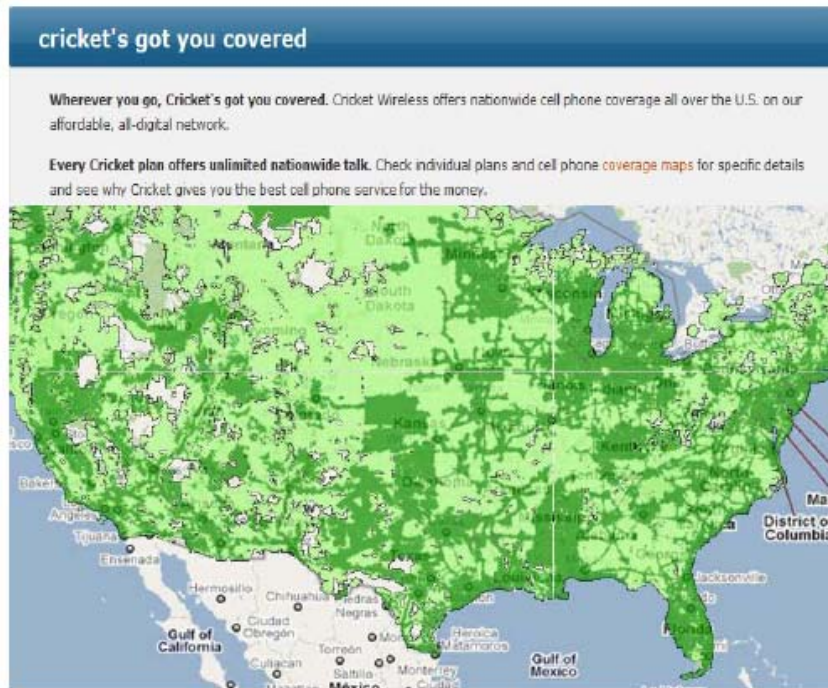
¹²⁴ Carlton Decl. ¶ 107 (quoting Deutsche Bank Analyst Report, *MetroPCS Comm. Increasing 4Q10 Net Adds on Positive Channel Checks* (Jan. 4, 2011) (“*Deutsche Bank Jan. 4, 2011 Analyst Report*)).

¹²⁵ *Metro PCS Morgan Stanley Conference Transcript*, at 2.

¹²⁶ *Id.* at 3.

company’s commitment to this smartphone segment, observing that the bar and clam phones are “going the way of the dinosaurs.”¹²⁷ And because most of MetroPCS’s smartphone customers will use spectrally efficient LTE services, the company has the spectrum resources it needs to provide high-quality service to its growing 4G customer base, as MetroPCS told the Commission earlier this year.¹²⁸

Leap, which operates under the brand name “Cricket,” markets all-you-can-eat plans to customers in 135 CMAs covering 102 million people, has spectrum in hundreds of additional CMAs, and has announced a variety of potential expansion plans. Carlton Decl. ¶ 108. Like MetroPCS, with which it has a comprehensive long-term roaming agreement, Leap offers nationwide service:



¹²⁷ Final Transcript, *PCS – MetroPCS Communications, Inc. at Credit Suisse Group Convergence Conference*, at 2 (Mar. 9, 2011).

¹²⁸ See Letter from Carl Northrop, Counsel to MetroPCS, to Chairman Genachowski, GN Docket No. 09-191, at 6-7 (Feb. 14, 2011).

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See Christopher Decl. ¶ 52. Leap has expanded its subscriber base from 1.47 million to 5.5 million in seven years. Christopher Decl. ¶ 62.¹²⁹ According to AT&T estimates, Leap has achieved a strong presence in such markets as **[Begin Confidential Information]**

[End Confidential Information]. Carlton

Decl. ¶ 108. In **[Begin Confidential Information]**

[End Confidential Information], Leap’s shares are estimated to exceed T-Mobile USA’s. *See id.*

Leap has traditionally served value-oriented customers and continues targeting its advertising campaigns at consumers seeking lower-priced alternatives to AT&T and Verizon:



Like MetroPCS, Leap has also recently branched out into smartphone services. Leap offers 3G service in all of its markets to approximately 92 million covered POPs, and its MVNO arrangement with Sprint expands 3G coverage to over 280 million POPs.¹³⁰ Ten percent of Leap’s customer base had already moved to smartphones by year-end 2010. Smartphones—including Android, Windows, and Blackberry devices—now account for 40% of Leap’s new

¹²⁹ See Leap Wireless International, Inc., Annual Report (2010 10-K), at 48 (Feb. 25, 2011) (“Leap 2010 10-K”); Leap Wireless International, Inc., Annual Report (2004 10-K) at 32 (May 16, 2005).

¹³⁰ See Press Release, Cricket Announces Launch of Nationwide 3G Data Roaming (Oct. 19, 2010), <http://www.mycricket.com/press/press-release/Cricket-Announces-Launch-of-Nationwide-3G-Data-Roaming>.

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handset sales.¹³¹ CEO Doug Hutcheson explains: “Our business progress demonstrates how data services are increasingly important to our customers, as evidenced by our customers’ significant uptake of smartphones and data-focused, higher-ARPU service plans.”¹³² He adds: “We have now got the devices, the service plans, and the nationwide 3G coverage our customers want. . . . The result is a significant increase in customer lifetime value which validates that we’re making the right investments in the right places.”¹³³ As with its other services, Leap emphasizes value in promoting its products against their more expensive AT&T and Verizon counterparts—advertising, for example, “All the BlackBerry” at “Half the Cost of AT&T and Verizon” with “No Signed Contracts” and “No Fees.”¹³⁴

Finally, Leap has begun LTE testing and, in March 2011, accelerated its 4G deployment plans by reaching a major spectrum arrangement with LightSquared to “supplement the LTE coverage that Cricket plans to deploy.”¹³⁵ Leap currently plans to launch a commercial 4G trial in late 2011.¹³⁶

¹³¹ Mike Dano, *Leap plans Wi-Fi-only ViewSonic Android tablet, more Android smartphones*, Fierce Wireless (Mar. 24, 2011), <http://www.fiercewireless.com/ctialive/story/leap-plans-wi-fi-only-viewsonic-android-tablet-more-android-smartphones/2011-03-24>.

¹³² Press Release, *Cricket Enters into 4G Roaming Agreement with LightSquared* (Mar. 22, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1541451&highlight=> (“*Leap-LightSquared Press Release*”).

¹³³ LEAP – Q4 2010 Leap Wireless International Earnings Conference Call, at 2 (Feb. 22, 2011).

¹³⁴ BlackBerry® Curve™ 8530 | Cricket Wireless, <http://www.mycricket.com/bundles/curve?CMP=AFC-Google09>.

¹³⁵ *Leap-LightSquared Press Release*.

¹³⁶ *Leap 2010 10-K*, at 3.

U.S. Cellular. This highly successful provider serves approximately 6.1 million customers in 26 U.S. states.¹³⁷ Like the other providers discussed above, it offers nationwide coverage:



According to AT&T’s internal estimates, U.S. Cellular has double-digit and sometimes leading shares of many markets in which T-Mobile USA and AT&T also compete, including **[Begin Confidential Information]**

[End Confidential Information]. Christopher Decl.

¶ 65. U.S. Cellular provides a range of 2G and 3G services and offers its customers nationwide 3G data roaming. It also offers a range of state-of-the-art smartphones, including the BlackBerry Bold and a variety of Android phones.¹³⁸ In November 2010, U.S. Cellular announced that it

¹³⁷ United States Cellular Corporation, Annual Report (2010 10-K), at 1 (Feb. 25, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=106793&p=irol-sec>.

¹³⁸ U.S. Cellular, *Phones*, <http://www.uscellular.com/uscellular/cell-phones/showPhones.jsp>.

would launch an LTE test market in late 2011 and was planning for full-scale LTE deployment in 2012.¹³⁹

Strong additional competition is also provided by more regional competitors offering nationwide service plans. These regional competitors include, among many others:

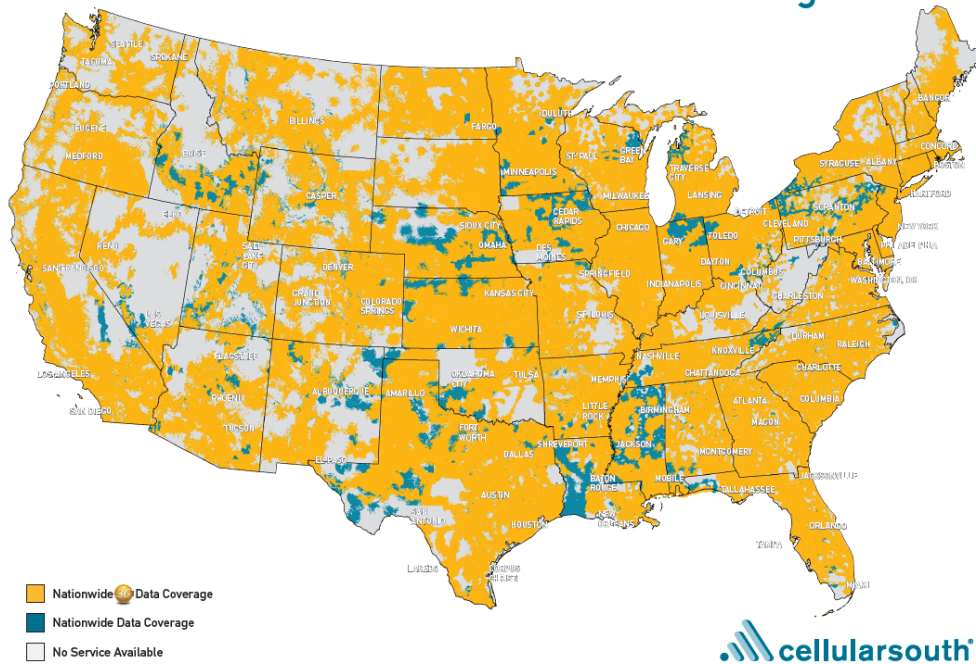
Cellular South serves approximately 880,000 subscribers in at least six states:

Mississippi, Alabama, Tennessee, Florida, Louisiana, and Arkansas. Carlton Decl. ¶ 114. In February 2011, it launched a “nationwide talk unlimited plan” for \$59.99. CellSouth’s website has a page designed specifically to attract customers away from AT&T, advertising: “From coast to coast, we’ve handpicked the best networks to give you better coverage in far more places than AT&T,” and “Our Smartphone Unlimited Plan is a first-of-its-kind value! Get unlimited talk, text, email, and web at a price that saves you over \$40/month compared to AT&T or Verizon.”¹⁴⁰ And its marketing materials further tout CellSouth’s “[n]ationwide [d]ata [c]overage,” most of it (the areas colored orange) in 3G:

¹³⁹ Mike Dano, *U.S. Cellular plans LTE test, vendor selection next year*, Fierce Wireless (Nov. 10, 2010), <http://www.fiercewireless.com/story/us-cellular-plans-lte-test-vendor-selection-next-year/2010-11-10>.

¹⁴⁰ *Why Cellular South*, <http://www.cellularsouth.com/DiscoverCenter/why-cs/att.jsp>.

Cellular South Nationwide Data Coverage



Similarly, Allied Wireless—a successor to Alltel—serves more than 800,000 subscribers in Georgia, North Carolina, South Carolina, Illinois, Ohio, and Idaho.¹⁴¹ Cincinnati Bell, a significant competitor in southwestern Ohio, has an estimated market share [Begin Confidential Information] [End Confidential Information]. Christopher Decl. ¶ 67. Cox Communications is aggressively promoting its “Unbelievably Fair” (SM) wireless plans to its existing cable TV subscribers in a growing number of markets, including parts of California, Virginia, Oklahoma, and Nebraska. Cox will soon expand into Cleveland and parts of New England and “plans to launch wireless service across 50 percent of its cable footprint by year-end.”¹⁴² Although Cox launched in

¹⁴¹ Allied Wireless Communications Corp., *About Us, Company Overview*, <http://www.awcc.com/index.php?id=2>.

¹⁴² Phil Goldstein, *Cox to expand wireless to 50% of footprint by year-end*, FierceWireless (Mar. 29, 2011), <http://www.fiercewireless.com/story/cox-expand-wireless-50-footprint-year-end/2011-03-29>.

existing markets through the use of Sprint's spectrum, it is also conducting trials of 4G LTE technology on its own AWS and 700 MHz spectrum, for which it spent more than half a billion dollars at auction.¹⁴³

Finally, in addition to these retail competitors, additional providers are using strong spectrum positions to deploy 4G technology and offer nationwide wholesale capacity to existing competitors and new entrants. These include:

Clearwire, owned by a consortium of Sprint, Comcast, Time Warner Cable, Intel, Google, and Bright House Networks, is the nation's largest holder of spectrum. Using spectrum in the 2.5-2.6 GHz bands, Clearwire is both a retailer of 4G data services (under the "Clear" brand), with more than a million retail customers, and a supplier of wholesale inputs to 4G WiMAX retail providers such as Sprint, Time Warner Cable, and Comcast.¹⁴⁴ It also recently struck a wholesale wireless deal with Best Buy, under which the retailer will use Clearwire's spectrum to market 4G services ("Best Buy Connect") for \$45 per month to customers at Best

¹⁴³ See *id.*; Press Release, *Cox Successfully Demonstrates the Delivery of Voice Calling, High Definition Video Via 4G Wireless Technology* (Jan. 25, 2010), <http://cox.mediaroom.com/index.php?s=43&item=469>.

¹⁴⁴ For example, Time Warner resells Clearwire's 4G service in several markets, including New York City. Michelle Maisto, *Sprint, Clearwire, Time Warner to Bring WiMax 4G to NYC*, eWeek.com (Oct. 18, 2010), <http://www.eweek.com/c/a/Mobile-and-Wireless/Sprint-Clearwire-Time-Warner-to-Bring-WiMax-4G-to-NYC-869670>. Comcast resells Clearwire's 4G service in numerous cities. Press Release, *Comcast Begins National Rollout of High-Speed Wireless Data Service* (June 29, 2009) ("Comcast's 4G service will be provided via the Clearwire network, and its 3G service will be provided by Sprint's nationwide 3G network."), <http://www.comcast.com/About/PressRelease/PressReleaseDetail.aspx?PRID=887>; Devin Coldewey, *Comcast to piggyback on Clearwire and Sprint networks and offer mobile broadband*, CrunchGear (June 29, 2009), <http://www.crunchgear.com/2009/06/29/comcast-to-piggyback-on-clearwire-and-sprint-networks-and-offer-mobile-broadband>.

Buy’s retail outlets nationwide,¹⁴⁵ and a new wholesale agreement with Sprint that, according to Clearwire’s CEO, “provides us with the capital to operate efficiently over the next couple of years” and “to plan for our expansion.”¹⁴⁶ Clearwire is also conducting LTE trials, and CTO John Saw reports that those trials are producing “mind blowing” results, including “60-90 Mbps of user data rate while you’re driving [at] fifty miles an hour.”¹⁴⁷

LightSquared—the successor to SkyTerra—will begin deploying a nationwide 4G LTE network in the second half of 2011 (upon resolution of GPS interference issues) and “could vigorously compete with AT&T and Verizon in the market for 4G LTE service.”¹⁴⁸ It expects to reach 100 million people by year-end 2012, 145 million by year-end 2013, and 260 million by year-end 2015.¹⁴⁹ LightSquared has both strong financial backing from Harbinger Capital Partners and, in its words, “owns valuable high quality spectrum assets, including 59 MHz of nationwide ubiquitous spectrum in an advantageous frequency position.”¹⁵⁰ As discussed, LightSquared has entered into a long-term 4G roaming agreement with Leap. It also recently announced an agreement to lease spectrum to Open Range, a wireless broadband provider in

¹⁴⁵ Phil Goldstein, *Best Buy kickstarts Clearwire MVNO service for \$45 per month*, FierceWireless (Mar. 29, 2011), <http://www.fiercewireless.com/story/best-buy-kickstarts-clearwire-mvno-service-45-month/2011-03-29>.

¹⁴⁶ See Roger Cheng, *Sprint to Pump \$1 Billion Into Clearwire*, Wall St. J. (Apr. 19, 2011) (quoting interim CEO John Stanton).

¹⁴⁷ Karl Bode, *Clearwire: LTE Trial Results “Mind Blowing,”* DSL Reports (Mar. 23, 2011), <http://www.dslreports.com/shownews/Clearwire-LTE-Trial-Results-Mind-Blowing-113342>.

¹⁴⁸ Paul Kapustka, *LightSquared Poised to Build Nationwide 4G Network*, PCWorld (Apr. 14, 2011), http://www.pcworld.com/article/225282/lightsquared_poised_to_build_nationwide_4g_network.html.

¹⁴⁹ LightSquared, *Nationwide LTE Broadband Network*, <http://www.lightsquared.com/what-we-do/network/>.

¹⁵⁰ Our Investors – LightSquared, <http://www.lightsquared.com/about-us/our-investor/>.

rural communities.¹⁵¹ And like Clearwire, it also has entered into a wholesale agreement with Best Buy. CEO Sanjiv Ahuja recently disclosed that the company is negotiating spectrum contracts with 15 additional companies.¹⁵²

The arrangements that spectrum wholesalers (such as Clearwire and LightSquared) have struck with retailers (like Best Buy) and cable companies (like Comcast and Time Warner Cable) illustrate the growing competitive role of MVNOs in the mobile marketplace. *See generally* Carlton Decl. ¶¶ 117-119. In the U.S., an increasing number of non-facilities-based MVNOs offer service to tens of millions of subscribers.¹⁵³ While MVNOs generally compete directly with facilities-based providers on price and differentiate themselves through branding, recent market developments make them much more significant as competitive threats.¹⁵⁴ Globally, moreover, MVNOs are already recognized as competitors to facilities-based providers. For example, in its recent T-Mobile/Orange decision, the European Commission took MVNOs into account when analyzing the state of competition in the mobile communications market.¹⁵⁵ Under the circumstances, the FCC, too, should account for MVNOs within its competitive analysis.

¹⁵¹ Press Release, *LightSquared and Open Range Partner to Expand Deployment of Nation's First 4G LTE Wireless Broadband and Satellite Network to Rural American Communities* (Mar. 11, 2011), <http://www.lightsquared.com/press-room/press-releases/lightsquared-and-open-range-2/>.

¹⁵² Phil Goldstein, *LightSquared CEO: We're in contract negotiations with 15 companies*, FierceWireless (Mar. 28, 2011), <http://www.fiercewireless.com/story/lightsquared-ceo-were-contracts-talks-15-companies/2011-03-28>.

¹⁵³ Letter from Christopher Guttman-McCabe, Vice President of Regulatory Affairs, CTIA – The Wireless Association, to Marlene Dortch, Secretary, FCC, WT Docket No. 09-66, GN Docket No. 09-157, GN Docket No. 09-51, at 2 (April 29, 2010).

¹⁵⁴ *See id.*

¹⁵⁵ *Case No. COMP/M.5650 – T-Mobile/Orange*, EUR-Lex 32010M5650, at 9 (Mar. 1, 2010), http://ec.europa.eu/competition/mergers/cases/decisions/M5650_20100301_20212_247214_EN.pdf.

3. The Transaction Will Not Harm Competition.

The Commission analyzes horizontal mergers to determine whether they will create one of two types of anticompetitive harm—either “coordinated interaction” or “unilateral effects.”¹⁵⁶ This transaction presents neither concern.

a) The transaction poses no prospect of anticompetitive coordination.

This merger presents no plausible basis for concern about anticompetitive coordination. Such concerns typically arise in markets with commodity products, limited (and highly transparent) dimensions of competition, limited growth, and few or no “disruptive” players. *See* Carlton Decl. ¶¶ 146-148.¹⁵⁷ As Professor Carlton discusses in his attached declaration, wireless markets have none of those features.

First, wireless markets are characterized by many heterogeneous firms with many different service plans and diverse market positions. These providers compete on multiple dimensions: not only on absolute price levels, but also on highly variable price structures (larger vs. smaller buckets, wireless-to-wireless minutes free, etc.), service quality (speed, reliability, network coverage, etc.), operating systems, and devices. *See* Carlton Decl. ¶¶ 149-152. Indeed, as the popularity of the iPhone and Android platforms reveals, wireless providers now compete on innovation as well. *See* Donovan Decl. ¶¶ 4, 14. By itself, the complexity and non-

¹⁵⁶ “Unilateral effects are those that result when a merged firm finds it profitable to alter its behavior by increasing prices or reducing output,” whereas “[c]oordinated interaction consists of actions by a group of firms that are profitable for each of the firms involved only because the other firms react by accommodating these actions rather than attempting to undercut them.” *Verizon/ALLTEL Order*, 23 FCC Rcd at 17484 ¶ 82 nn.298, 299.

¹⁵⁷ *See also Sprint/Nextel Order*, 20 FCC Rcd at 13995 ¶ 70 (factors include “the number of firms, transparency of information, firm and product homogeneity, and the presence of mavericks”); *Cingular/AT&T Wireless Order*, 19 FCC Rcd at 21580-86 ¶¶ 150-164.

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transparency of this competitive landscape would present formidable obstacles to any effective coordination effort. *See* Carlton Decl. ¶¶ 149-152.

Second, wireless markets are characterized by both strong demand and rapid technological flux. Those conditions would make coordination among firms formidably difficult, given that every provider has strong individual incentives to be an early provider of new services and to serve rapidly growing demand. *See* Carlton Decl. ¶ 151.

Third, wireless markets are highly prone to disruption by mavericks. For example, upstarts such as MetroPCS and Leap have succeeded—as shown by their dramatic subscriber growth—because they have effectively distinguished themselves from Verizon, AT&T, and others on (for example) the basis of price. And Sprint can claim to have added nearly two million net subscribers in 2010 because it effectively marketed its value propositions plus its groundbreaking first-in-time 4G service and devices. Such widespread differentiation among providers and services would further impede any coordination effort. *See* Carlton Decl. ¶¶ 148-152.

Finally, even by itself, the geographically local nature of wireless markets would also preclude any coordination arrangement. Local markets vary tremendously in the number and identity of competitors, as discussed above. Major providers would find it difficult, if not impossible, to “coordinate” their competitive activities without triggering disruptive responses from various upstarts in local markets. *See* Carlton Decl. ¶ 152.

b) *The transaction poses no prospect of anticompetitive unilateral effects.*

There is also no basis for concern that the transaction will present unilateral anticompetitive effects—*i.e.*, “increas[ed] prices or reduc[ed] output” as compared to the

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marketplace in the absence of the transactions.¹⁵⁸ Such concerns are most substantial when (1) the pre-merger companies are not capacity constrained and thus, in the absence of the merger, would find it profitable to add more customers at existing price levels, and (2) the merging brands are close substitutes and exert strong mutual competitive pressure. Carlton Decl. ¶¶ 137-140. Neither condition is present here, and typical “unilateral effects” concerns are thus inapplicable. *Id.*

First, the transaction will produce *greater* output and *lower* prices than would exist in the absence of the transaction precisely because it will enable these two companies to meet otherwise intractable capacity constraints. Carlton Decl. ¶ 133. Firms like AT&T that are operating at or near capacity have little or no incentive to cut prices in order to attract new subscribers. Instead, even in highly competitive markets, such firms have the incentive to ration available capacity through a variety of means, including the use of usage-sensitive pricing to discourage high customer demand for available capacity. *See* Christopher Decl. ¶ 4. For example, AT&T instituted tiered pricing for its smartphone services in 2010 to help promote that capacity-conserving objective. *Id.* Alternatively, a provider facing severe capacity constraints could throttle back on high usage or simply allow its network to become increasingly congested.¹⁵⁹ In practical effect, either outcome would raise the quality-adjusted price of service.

In these circumstances, the capacity increases created by this highly synergistic transaction can only benefit consumers. As Professor Carlton explains, those increases “will lower the cost of serving additional subscribers and thus create incentives to expand output and

¹⁵⁸ *Verizon/ALLTEL Order*, 23 FCC Rcd at 17484 ¶ 82 n.298.

¹⁵⁹ *See generally* Brennon Slattery, *T-Mobile Unlimited Data Plan Includes Throttling*, PC World (Apr. 13, 2011), http://www.pcworld.com/article/225012/tmobile_unlimited_data_plan_includes_throttling.html.

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lower prices relative to the levels expected in the absence of the transaction.” Carlton Decl.

¶ 134. This is “especially” true “in light of the large projected increases in demand for data services[.]” *Id.*¹⁶⁰ And the transaction will benefit consumers by creating incentives for greater innovation, greater output, and lower prices than would occur in the absence of this transaction. *See* Christopher Decl. ¶¶ 79-80; Carlton Decl. ¶ 134. In particular, it will “enable AT&T to bring to market a broader range of products and services in a more timely, efficient, and competitive manner,” thereby “challeng[ing AT&T’s] competitors to compete on the quality and pricing of their service offerings” as well. Christopher Decl. ¶ 80.

In any event, even apart from these considerations, the transaction presents few concerns about unilateral anticompetitive effects because, as discussed, T-Mobile USA does not exert strong competitive pressure on AT&T and the two brands serve substantially different groups of subscribers. Christopher Decl. ¶ 27; Carlton Decl. ¶ 149. Verizon is AT&T’s “next closest” competitor, followed by Sprint, while MetroPCS, Leap, and other regional providers are increasing competitive threats. While AT&T tracks T-Mobile USA’s activities (along with those of other providers), it does not view T-Mobile USA as a close competitor, let alone as a major competitive threat. Christopher Decl. ¶ 27. Indeed, **[Begin Confidential Information]**

¹⁶⁰ As Professor Carlton further explains (Decl. at ¶¶ 141-143), the “upward pricing pressure” (“UPP”) analysis reflected in the new DoJ/FTC Horizontal Merger Guidelines is designed for markets where firms do not confront long-term capacity constraints that deprive them of normal incentives to win more customers by lowering prices. That analysis is thus an inappropriate means of evaluating the proposed merger, given the severe capacity constraints facing AT&T and T-Mobile USA and the ability of the two companies to increase their capacity and output through merger synergies.” *See also* Jonathan B. Baker, *Merger Simulation in an Administrative Context*, at 5 n.8 (Feb. 22, 2011) (“In practice, unilateral effects most commonly arise from mergers among firms that sell differentiated products without binding capacity constraints.”), <http://ssrn.com/abstract=1790943>.

[End

Confidential Information]. Christopher Decl. ¶ 23.

The two companies are positioned very differently in the marketplace. For example, T-Mobile USA focuses on a [Begin Confidential Information]

[End Confidential Information] than AT&T. Carlton Decl. ¶ 89 & Table 2, ¶ 125. In a recent survey, T-Mobile USA subscribers were substantially [Begin Confidential Information]

[End Confidential Information].¹⁶¹ Data usage also accounts for a far lower percentage of T-Mobile USA’s revenues than AT&T’s, and T-Mobile USA has a far higher share of non-contract subscribers. See Carlton Decl. ¶ 89 & Table 2, ¶ 125.

MetroPCS, Leap, and other value providers increasingly target the same value-conscious consumers as T-Mobile USA. Christopher Decl. ¶ 46; Carlton Decl. ¶ 89 & Table 2. And they are doing so more successfully because they tend to offer lower prices than T-Mobile USA for value-oriented services. Christopher Decl. ¶ 46. For example, as MetroPCS told the Commission earlier this year, “MetroPCS’ most expensive all-inclusive plan . . . is priced well below the unlimited voice and data offerings of all of MetroPCS’ major competitors,” and it cited T-Mobile USA’s comparable plan in particular as one of the “substantially more expensive” alternatives.¹⁶²

In short, MetroPCS, Leap, and others can fill any gap T-Mobile USA might leave in the competition for value-conscious consumers when the transaction is completed. Indeed, as

¹⁶¹ See Nielsen, *Q4 2010 Q4 Mobile Insights: National Report*, at 68-69.

¹⁶² *MetroPCS Feb. 14, 2011 Letter* at 12 and n.42.

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discussed above, MetroPCS and Leap have *already* overtaken T-Mobile USA in a growing number of markets. This trend is likely to continue. “[A] significant driver of . . . new customers [for MetroPCS] is an influx of former contract customers “[T]hese consumers, who are typically no longer on contract, are porting their numbers to [MetroPCS] once they recognize the value proposition offered by unlimited month-to-month usage and near-nationwide coverage for an all-in flat rate. . . . [One-third] of its gross adds were former post paid subs, and . . . this share could increase as [MetroPCS] rolls out new attractive handsets.”¹⁶³

The threat of new entry further minimizes any concern about unilateral effects. For example, LightSquared’s recent wholesale deal with Best Buy shows the potential for new retail competition, and LightSquared has sufficient spectrum to wholesale to additional providers such as Wal-Mart or Amazon.¹⁶⁴ Similarly, cable companies such as Cox and Time Warner Cable both have spectrum in their own right and have entered arrangements with wholesalers such as Clearwire.¹⁶⁵ The cable companies, which can easily exploit their longstanding access to millions of cable television subscribers, could also expand their offerings to respond to any opportunity in a market segment now served by T-Mobile USA. *See* Carlton Decl. ¶ 120.

More generally, this transaction will not eliminate a major competitive force from the marketplace. T-Mobile USA is now “struggling for relevance” in this increasingly competitive

¹⁶³ Carlton Decl. ¶ 110 (quoting *Deutsche Bank Jan. 4, 2011 Analyst Report* at 4).

¹⁶⁴ *See* David Goldman, *LightSquared’s big gamble: A brand-new wireless network*, CNNMoney.com (July 21, 2010), http://money.cnn.com/2010/07/21/technology/LightSquared_wireless_network/index.htm.

¹⁶⁵ SpectrumCo, a consortium of investors including Comcast and Time Warner Cable (but no longer Cox), holds AWS licenses for 20 MHz of spectrum covering over 80% of the continental U.S. and Hawaii. *See, e.g.*, Time Warner Cable, Inc., Annual Report (2010 10-K) at 15 (Feb. 18, 2011). That spectrum is also a key source of potential new wireless entry. *See* Carlton Decl. ¶ 120.

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market.¹⁶⁶ In particular, its “pricing strategy is exposed at the low-end to challengers, such as Leap and Metro, while high ARPU [subscribers] are targeted by AT&T and Verizon’s higher quality positioning.”¹⁶⁷ While Sprint has turned itself around within the past two years, and while industry upstarts MetroPCS and Leap have grown with astonishing rapidity, T-Mobile USA’s percentage of subscribers nationwide has declined since 2009:

[Begin Confidential Information]

[End Confidential Information]

Carlton Decl. ¶ 126. T-Mobile USA had its worst decline ever in the fourth quarter of 2010, when it suffered a net loss of 23,000 total customers and a net loss of 318,000 contract customers.¹⁶⁸ “T-Mobile USA’s high total churn, 3.4% at the end of Q3 2010[,] is significantly

¹⁶⁶ Carlton Decl. ¶ 130 (quoting *J.P. Morgan Jan. 2011 Analysis*, at 18).

¹⁶⁷ Carlton Decl. ¶ 130 (quoting Morgan Stanley, *Deutsche Telekom, US Options—No Easy Way Out*, at 3 (Jan. 10, 2011)).

¹⁶⁸ Peter Pachal, *Why Is T-Mobile Losing Customers?*, PCMag.com (Feb 25, 2011), <http://www.pcmag.com/article2/0,2817,2380949,00.asp>.

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higher when compared to national carriers such as Verizon Wireless and AT&T. This can be attributed to its customer base, which is more value oriented and now overwhelmingly skewed towards prepaid for net additions.”¹⁶⁹ As DT’s Thorsten Langheim notes, T-Mobile USA is “struggling to remain a strong competitor in the wireless marketplace.” Langheim Decl. ¶ 11.

As an independent company, T-Mobile USA would also have decreasing significance in the higher end of the market because T-Mobile USA has no clear path to deploy LTE. *See* Section I.A, *supra*. And any potential LTE product T-Mobile USA could potentially deploy would be subject to substantial spectrum limitations and capital-financing challenges. *See id.* As discussed, DT has turned increasing attention to its European operations at the expense of its American subsidiary and, in January 2011, announced that T-Mobile USA can no longer rely on its parent for investment support and must instead “fund its future itself.”¹⁷⁰

This transaction also will not harm competition for business customers because AT&T and T-Mobile USA are not frequent or close competitors in that space. *See* Christopher Decl. ¶¶ 25-26. AT&T offers a sophisticated suite of wireless business applications and services, and it focuses on offering an integrated value proposition that includes wireline services like VPN as well as wireless. Verizon and Sprint are AT&T’s primary competitors for those opportunities. In contrast, T-Mobile USA has a more limited offering, since it sells more basic wireless services and has no wireline operations. In short, T-Mobile USA is not a significant player in this customer segment, and where it does appear, there are other, stronger competitors involved as well.

¹⁶⁹ Carlton Decl. ¶ 122 n.181 (quoting Current Analysis, *Company Assessment: T-Mobile USA*, at 5 (Jan. 18, 2011)).

¹⁷⁰ Jan. 20, 2011 DT Analyst Briefing (Deutsche Telekom CEO Rene Obermann).

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For all of these reasons, while consumers will benefit tremendously from the integration of these two companies' networks, the elimination of T-Mobile USA as a standalone provider will not substantially reduce competition in any relevant market.

Finally, an international perspective is instructive. The U.S. marketplace is substantially less concentrated than its foreign counterparts, which themselves remain competitive, and it also differs from them in its “large number of regional and local mobile operators” offering nationwide service.¹⁷¹ As the Commission has observed, “each market [in Western Europe and Japan] tends to be dominated by the top two competitors, which have a combined market share ranging from approximately 70-72 percent in Germany and Italy to approximately 77-78 percent in France, Finland, and Japan.”¹⁷² As foreign regulators have recognized, consumers benefit when providers have the scope and scale they need to provide high-quality, cutting-edge services despite escalating wireless broadband usage. This Commission should not hobble the U.S. broadband marketplace with artificial constraints on these operating efficiencies.

RELATED GOVERNMENTAL FILINGS

The Department of Justice will conduct its own review of the competitive aspects of this transaction pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976¹⁷³ and the rules promulgated thereunder. The Applicants have submitted a notification form and an associated documentary appendix to the Department and the Federal Trade Commission, and they fully expect that this review will confirm that the transaction does not raise any competitive issues.

¹⁷¹ *Fourteenth Wireless Report*, 25 FCC Rcd at 11621 ¶ 365 n.981.

¹⁷² *Id.* at 11622 ¶ 367; *see id.* at 11621 ¶ 365.

¹⁷³ 15 U.S.C. § 18a.

MISCELLANEOUS REGULATORY ISSUES

In addition to seeking the Commission's approval of the assignments and transfer of control of the authorizations and spectrum leases covered in these applications, the applicants also request approval for the additional authorizations described below.

A. After-Acquired Authorizations

The list of call signs and file numbers included in each application is intended to include all of the licenses, authorizations, and spectrum leases held by the respective licensees or lessees that are subject to the transaction. However, T-Mobile USA licensees or lessees may now have on file, and may hereafter file, additional requests for authorizations for new or modified facilities that may be granted, or it may enter into new spectrum leases before the Commission takes action on these Applications. Accordingly, the applicants request that any Commission approval of the applications filed for this transaction include authority for AT&T to acquire control of: (1) any authorization issued to T-Mobile USA or its subsidiaries while this transaction is pending before the Commission and the period required for consummation of the transaction;¹⁷⁴ (2) any construction permits held by T-Mobile USA or its subsidiaries that mature into licenses after closing; (3) any applications or lease notifications that are pending at the time of consummation; and (4) any leases of spectrum into which T-Mobile USA or its subsidiaries enter as lessees while this transaction is pending before the Commission and the period required

¹⁷⁴ In particular, the applicants request that any Commission approval of the applications include authority for AT&T to acquire control of spectrum acquired by T-Mobile USA from Sprint in a recent transaction. The Commission consented to T-Mobile USA's acquisition of a partitioned/disaggregated portion of Sprint call sign KNLF215, and the parties consummated the transaction, but inadvertently failed to file a notice of consummation. The relevant application, ULS File No. 0004141100, is currently in a dismissal status, and T-Mobile USA and Sprint have pending before the Commission a petition for reinstatement of this and a related application assigning spectrum to Sprint.

for consummation of the transaction. Such action would be consistent with prior decisions of the Commission.¹⁷⁵ Moreover, because AT&T is acquiring T-Mobile USA and all of its FCC authorizations, AT&T requests that Commission approval include any authorizations that may have been inadvertently omitted.

B. Trafficking

To the extent any authorizations for unconstructed systems are covered by this transaction, these authorizations are merely incidental, with no separate payment being made for any individual authorization or facility. Accordingly, there is no reason to review the transaction from a trafficking perspective.¹⁷⁶

C. Blanket Exemption to Cut-Off Rules

Pursuant to Sections 1.927(h), 1.929(a)(2), and 1.933(b) of the Commission's Rules,¹⁷⁷ to the extent necessary,¹⁷⁸ the applicants request a blanket exemption from any applicable cut-off

¹⁷⁵ See, e.g., *AT&T/Verizon Order*, 25 FCC Rcd at 8773 ¶ 165; *AT&T/Centennial Order*, 24 FCC Rcd at 13981 ¶ 170; Memorandum Opinion and Order, *SBC Communic'ns Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, 20 FCC Rcd 18290, 18392 ¶ 212 (2005); *Cingular/AT&T Wireless Order*, 19 FCC Rcd at 21626 ¶ 275; Memorandum Opinion and Order, *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from S. New Eng. Telecoms. Corp. to SBC Commc'ns, Inc.*, 13 FCC Rcd 21292, 21317 ¶ 49 (1998); Memorandum Opinion and Order, *Applications of NYNEX Corp. and Bell Atl. Corp.*, 12 FCC Rcd 19985, 20097-98 ¶¶ 246-56 (1997) ("*NYNEX/Bell Atlantic Order*"); Memorandum Opinion and Order, *Applications of Pac. Telesis Group and SBC Commc'ns, Inc.*, 12 FCC Rcd 2624, 2665 ¶ 93 (1997); Memorandum Opinion and Order, *Applications of Craig O. McCaw and Am. Tel. & Tel. Co.*, 9 FCC Rcd 5836, 5909 ¶ 137 n.300 (1994) ("*McCaw/AT&T Order*"), *aff'd sub nom. SBC Commc'ns Inc. v. FCC*, 56 F.3d 1484 (D.C. Cir. 1995), *recons. in part*, 10 FCC Rcd 11786 (1995).

¹⁷⁶ See 47 C.F.R. § 1.948(i) (noting that the Commission *may* request additional information regarding trafficking if it appears that a transaction involves unconstructed authorizations that were obtained for the principal purpose of speculation); *id.* § 101.55(c)-(d) (permitting transfers of unconstructed microwave facilities that are "incidental to a sale of other facilities or merger of interests").

¹⁷⁷ 47 C.F.R. §§ 1.927(h), 1.929(a)(2), 1.933(b).

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rules in cases where the licensees in this transaction file amendments to pending applications in order to reflect consummation of the proposed transaction. This exemption is requested to prevent amendments to pending applications that report the change in ultimate ownership of the licenses involved in these applications from being treated as major amendments. The nature of the proposed transaction demonstrates that the ownership changes would not be made for the acquisition of any particular pending application, but as part of a larger transaction undertaken for an independent and legitimate business purpose. Grant of this request would be consistent with prior Commission decisions that have routinely granted a blanket exemption in cases involving multiple-license transactions, such as this one.¹⁷⁹

D. Unjust Enrichment

No unjust enrichment concerns are implicated by this transaction. Although the applicants are filing a Form 603 to transfer control of T-Mobile USA's interest in a designated entity, Cook Inlet/VS GSM VII PCS, LLC ("Cook Inlet VII"), that interest already is held by a

¹⁷⁸ With respect to cut-off rules under Sections 1.927(h) and 1.929(a)(2), the Commission previously has found that the public notice announcing the transaction will provide adequate notice to the public with respect to the licenses involved, including for any license modifications pending. In such cases, it determined that a blanket exemption of the cut-off rules was unnecessary. *See* Memorandum Opinion and Order, *Applications of Ameritech Corp. and GTE Consumer Services Inc. for Consent to Transfer Control of Licenses and Authorizations*, 15 FCC Rcd 6667, 6668 ¶ 2 n.6 (1999); Memorandum Opinion and Order, *Applications of Comcast Cellular Holdings, Co. and SBC Communic'ns Inc.*, 14 FCC Rcd 10604, 10605, ¶ 2 n.3 (1999).

¹⁷⁹ *See, e.g.*, Memorandum Opinion and Order, *Applications of PacifiCorp Holdings, Inc., and Century Tel. Enters., Inc. for Consent to Transfer Control of Pac. Telecom, Inc., a Subsidiary of PacifiCorp Holdings, Inc.*, 13 FCC Rcd 8891, 8915-16, ¶ 47 (1997); *NYNEX/Bell Atlantic Order*, 12 FCC Rcd at 20091-92 ¶ 234; *McCaw/AT&T Order*, 9 FCC Rcd at ¶ 137 n.300.

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non-designated entity—T-Mobile USA.¹⁸⁰ The applicants are filing the Stock Purchase Agreement and related materials.

Several of T-Mobile USA's authorizations originally were subject to the Commission's installment payment plan. For all of these authorizations, however, the installment payment obligations have been paid in full.¹⁸¹

E. Environmental Impact

As required by Section 1.923(e) of the Commission's rules,¹⁸² the applicants state that the transfer of control of licenses and leases involved in this transaction will not have a significant environmental effect, as defined by Section 1.1307 of the Commission's rules.¹⁸³ A transfer of control of licenses and leases does not involve any engineering changes and, therefore, cannot have a significant environmental impact.

CONCLUSION

AT&T's acquisition of T-Mobile USA from DT will serve the public interest. The Commission should expeditiously grant the applications to transfer control of T-Mobile USA's FCC authorizations to AT&T.

¹⁸⁰ T-Mobile USA's interest in Cook Inlet VII is non-controlling by definition. Otherwise, Cook Inlet VII would not have qualified to bid on and hold its licenses as a designated entity. See 47 C.F.R. § 1.2110; Fifth Report and Order, *Amendment of Part 1 of the Comm'n's Rules – Competitive Bidding Procedures*, 15 FCC Rcd 15293, 15323-28 ¶¶ 58-69 (2000) (“We will adopt as our general attribution rule a ‘controlling interest’ standard for determining which applicants qualify as small businesses.”) (subsequent history omitted).

¹⁸¹ See ULS File Nos. 0004669383, 0004673673, 0004673727, 0004673730, and 0004673732. The application to transfer control of licenses held by Iowa Wireless Services Holding Corporation also involves spectrum originally subject to the Commission's installment payment program. This application is being filed manually and as such a file number has not yet been assigned.

¹⁸² 47 C.F.R. § 1.923(e).

¹⁸³ *Id.* § 1.1307.

Declaration of David A. Christopher

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DECLARATION OF DAVID CHRISTOPHER

I, David A. Christopher, hereby declare the following:

I. Introduction

1. My name is David A. Christopher. I am the Chief Marketing Officer of AT&T's Mobility and Consumer Markets business for AT&T Mobility Services LLC. I am responsible for AT&T's national portfolio of consumer communications and entertainment products and services. In this capacity, I oversee overall wireless product planning, and marketing operations, including advertising, product and service offerings, pricing and rate plans, and promotions. I am familiar with our wireless competitors, our competitors' initiatives, and industry developments in the marketplace that are important to AT&T's advertising, product and service offerings, and pricing decisions and strategies.

2. The purpose of my declaration is three-fold. First, I will describe the fiercely competitive U.S. wireless marketplace today and the ways in which the U.S. wireless marketplace is evolving and will remain extremely competitive in the future. Second, I will describe from AT&T's perspective T-Mobile USA's role in the wireless marketplace today and in the future. Finally, I will describe how network capacity is critical to new products and services and how AT&T's acquisition of T-Mobile USA will foster innovation by providing AT&T with essential spectrum and thereby create a more competitive environment.

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II. Executive Summary

3. The wireless marketplace in the U.S. is highly competitive. As I will describe in detail below, it comprises (a) traditional providers like AT&T Mobility Services, LLC (“AT&T”), Cellco Partnership (Verizon Wireless) (“Verizon”), Sprint Nextel Corporation (“Sprint”), and T-Mobile USA, Inc. (“T-Mobile USA”); (b) rapidly growing, low-cost, no-contract “all-you-can-eat” (“AYCE”) carriers like MetroPCS Communications Inc. (“MetroPCS”) and Leap Wireless International, Inc. (“Leap”); (c) regional and local carriers like United States Cellular Corporation (“U.S. Cellular”), Cellular South, and Cincinnati Bell Wireless (“Cincinnati Bell”); (d) wholesale providers like Clearwire Corporation (“Clearwire”) and LightSquared; and (e) new entrants with an embedded customer base like Cox Communications (“Cox”). All of these providers are competing for the wireless consumer’s share of mind and wallet by trying to differentiate themselves primarily based on network evolution and performance, price, and availability of innovative products and services.

4. The explosive growth in wireless products and services, and wireless broadband in particular, is largely the result of innovation in the speed and capabilities of wireless networks. Wireless network evolution, in turn, supported the creation of new devices that are orders of magnitude more powerful than even five years ago along with robust new operating systems and applications to run on those devices.¹ However, as wireless consumers’ insatiable demand for these devices, services, and applications has increased, the wireless industry (and AT&T in

¹ Smartphones can generate up to 24 times the traffic as a basic-feature phone. *See Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010-2015*, at 7 (Feb. 1, 2011), http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf.

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particular) is facing a shortage in spectrum necessary to address this explosive growth.² As I will discuss in more detail below, our forecasts of expected consumer demand and expected spectrum capacity constraints have affected our competitive decisions, including the plans we offer, the prices we charge, and the advanced features we make available on our devices. **[Begin Confidential Information]**

[End Confidential Information].³ The proposed acquisition of T-Mobile USA will increase AT&T's ability to improve its network quality, to offer a broader range of innovative services and device features, and to aggressively compete with Verizon, Sprint, other carriers, and the highly disruptive "all you can eat" carriers and new entrants. The net result will be improved service quality, more innovation, and increased competition, all of which will benefit wireless consumers.

² Remarks of FCC Chairman Julius Genachowski, The White House, at 2 (Apr. 6, 2011) ("Demand for spectrum is rapidly outstripping supply. . . . We need to tackle the looming spectrum crunch by dramatically increasing the new spectrum available for mobile broadband, and the efficiency of its use."), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0406/DOC-305593A1.pdf.

³ See Mike Dano, *New Sprint Ad Campaign Hinges on Unlimited Data*, FierceWireless (Apr. 11, 2011), <http://www.fiercewireless.com/story/new-sprint-ad-campaign-hinges-unlimited-data/2011-04-11>; David Goldman & Laurie Segall, *Verizon iPhone Draws Small Crowds*, CNNMoney.com (Feb. 10, 2011) ("But Verizon has a few competitive tricks up its sleeve. It's going after AT&T's customers by offering unlimited data plans for the iPhone for a limited time."), http://money.cnn.com/2011/02/10/technology/verizon_iphone; Roger Cheng, *Verizon iPhone: \$30 Unlimited Data (for Now)*, WSJ Blog (Jan. 25, 2011) (regarding Verizon's \$30 unlimited data plan for iPhone buyers, Verizon's COO Lowell McAdam, stated, "I'm not going to shoot myself in the foot," and that "not offering an unlimited plan would put up a barrier for customers who might otherwise switch from AT&T."), <http://blogs.wsj.com/digits/2011/01/25/verizon-iphone-30-unlimited-data>.

III. The U.S. Wireless Market Is Fiercely Competitive

5. The wireless marketplace today is one of the most intensely competitive of any industry in the U.S. In a wireless marketplace in which wireless subscription penetration surpassed ninety-five percent (95%) in 2010, there are a limited number of new subscribers.⁴ As a result, wireless providers compete not only to retain their existing customer base, but also to attract new customers from each other—consumers we call “switchers.” Wireless consumers do not hesitate to switch their service—in fact, approximately twenty-five percent (25%) of U.S. customers switch to different wireless service providers each year.⁵ Indeed, it is estimated that, industry-wide, over ninety percent (90%) of new postpaid customers result from switching from one carrier to another.⁶

6. At the same time, the wireless marketplace is served by a wide variety of competitors, each of which is vying for a larger piece of the market by differentiating itself from its competitors by focusing to varying degrees on three key components—network quality, price, and new and innovative product and service offerings. The stakes are enormous for the decisions AT&T and its competitors make every day. Success depends on making the right choices in advertising and marketing strategy, product and service offerings, and pricing, in a marketplace that constantly evolves.

⁴ Strategy Analytics, *US Wireless Market Outlook (2010-2015)* (April 2011).

⁵ See Fourteenth Report, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, 25 FCC Rcd 11407, 11411 ¶ 248 (2010) (“*Fourteenth Wireless Report*”).

⁶ Strategy Analytics, *US Wireless Market Outlook (2010-2015)* (April 2011).

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A. The Vast Majority of Wireless Consumers Have a Choice Among at Least Five Facilities-Based Carriers

7. Wireless competition comes from a wide variety of sources, and the large majority of U.S. wireless consumers—approximately seventy-four percent (74%) as reported by the FCC— have a choice among five or more facilities-based carriers in their local area.⁷ In fact, in 23 of the top 25 markets, there are at least five facilities-based wireless service providers. In addition to AT&T, Verizon, Sprint, and T-Mobile USA, which have networks that cover most of the country, consumers can choose from other carriers who focus primarily on specific geographic markets, but also offer national service plans.⁸

8. A relatively new and increasingly important market dynamic is the emergence of low-cost, no-contract “all-you-can-eat” (“AYCE”)⁹ carriers—especially MetroPCS and Leap—as significant wireless competitors that offer a “post-pay experience for pay-in-advance customers.”¹⁰ These carriers have expanded rapidly, initially by providing a meaningful value proposition to their customers and more recently by moving up-market, combining their AYCE voice and data plans with broad distribution, feature-rich smartphones, industry-low device

⁷ See *Fourteenth Wireless Report*, 25 FCC Rcd at 11449 ¶ 45, Table 5.

⁸ See Appendix at 10-20.

⁹ The term AYCE refers to unlimited voice, texting, and data plans with no term contract. See Sid Gorham, *Telecom Case Study: All You Can Eat Plans Take a Bite out of Vegas*, Nielsen Wire (June 9, 2009), http://blog.nielsen.com/nielsenwire/online_mobile/telecom-case-study-all-you-can-eat-plans-take-a-bite-out-of-vegas.

¹⁰ See MetroPCS Bank of America Credit Conference, at 7 (Nov. 17, 2010), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDA3MjY1fENoaWxkSUQ9NDE2NjIzFR5cGU9MQ==&t=1>; Sid Gorham, *Telecom Case Study: All You Can Eat Plans Take a Bite out of Vegas*, Nielsen Wire (June 9, 2009), http://blog.nielsen.com/nielsenwire/online_mobile/telecom-case-study-all-you-can-eat-plans-take-a-bite-out-of-vegas.

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prices and rate plans, the fact that they do not require a contract, and nationwide coverage.¹¹ In fact, because of their growing success, AT&T launched its first no-contract smartphone offer—the LG Thrive—on April 17, 2011.¹² AT&T also has implemented targeted advertising, new offers, and increased distribution in areas where AYCE carriers are particularly prevalent such as South Florida, Texas, and Detroit.

9. U.S. Cellular has networks in 26 states and strong brand presence and market position in numerous local markets.¹³ Other regional and local carriers include carriers such as Cellular South and Cincinnati Bell, which focus on local and regional markets, but also offer nationwide service plans. Many of these carriers have well established competitive positions in specific regions, metropolitan areas and/or local areas, with strong networks, extensive local distribution, and powerful brand presence. Indeed, some regional carriers such as U.S. Cellular and Cincinnati Bell have larger estimated subscriber shares than AT&T and T-Mobile USA in certain areas. Importantly, these regional and local carriers offer products and services competitive with the larger carriers like AT&T, Verizon, and Sprint, even though they concentrate on local geographic areas.¹⁴

¹¹ See, e.g., Press Release, *Cricket Announces Launch of Nationwide 3G Data Roaming* (Oct. 19, 2010) (showing nationwide data and voice coverage), <http://www.mycricket.com/press/press-release/Cricket-Announces-Launch-of-Nationwide-3G-Data-Roaming>.

¹² See Press Release, *AT&T and LG Mobile Phones Launch First Smartphone for GoPhone*, (Apr. 11, 2011), <http://www.att.com/gen/press-room?pid=19623&cdvn=news&newsarticleid=31797>.

¹³ See U.S. Cellular Corp., Annual Report (2010 Form 10-K), at 1 (Feb. 26, 2011).

¹⁴ See, e.g., Cellular South, *All Plans*, https://www.cellularsouth.com/cscommerce/products/plans/category_plan_landing.jsp?id=cat320003; Appendix at 14-18 (coverage maps for U.S. Cellular, Cincinnati Bell, and Cellular South).

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10. In addition, wholesale providers with significant spectrum holdings are constructing advanced wireless networks that they will make available to others for resale and in some cases on a retail basis, thus providing additional competition. As will be discussed in more detail below, examples of existing and emerging wholesale providers are Clearwire and LightSquared. Clearwire claims to be the largest spectrum holder in the nation and is owned by Sprint, Comcast, Time Warner Cable, Google, and Intel, among others.¹⁵ Sprint and several cable operators resell Clearwire service under their own brands.¹⁶ LightSquared claims that it is the nation's first wholesale-only integrated wireless broadband and satellite network.¹⁷

11. New non-traditional entrants to the wireless marketplace are further enhancing the competitive landscape. Cox, the third-largest U.S. cable TV company with over 6 million customers, was the first U.S. cable company to launch fully-integrated wireless phone and mobile high speed Internet services utilizing 3G CDMA technology in Hampton Roads, Virginia; Omaha, Nebraska; and Orange County, California.¹⁸ Cox has since launched service in Oklahoma City and Tulsa, Oklahoma and just announced new service in Rhode Island, Connecticut, and Cleveland, Ohio.¹⁹ Cox recently has stated that it will bring its wireless service

¹⁵ Other owners include Eagle River and Bright House Networks. *See* Clearwire Corp., Annual Report (2010 Form 10-K), at 3, 4 (Feb. 22, 2011).

¹⁶ *See id.* at 12, 25.

¹⁷ *See* Press Release, *LightSquared Delivers Notice to Inmarsat Triggering Phase 2 of Re-Banding of L-Band Spectrum in North America* (Jan. 28, 2011), <http://www.lightsquared.com/press-room/press-releases/lightsquared-delivers-notice-to-inmarsat-triggering-phase-2-of-re-banding-of-l-band-spectrum-in-north-america>.

¹⁸ *See* Press Release, *Cox Communications Announces Hampton Roads, Omaha and Orange County as First Wireless Markets* (Dec. 9, 2009), <http://cox.mediaroom.com/index.php?s=43&item=457>.

¹⁹ *See* Press Release, *Cox to Bring Unbelievably Fair Wireless Plans to Rhode Island, Connecticut, and Cleveland* (Apr. 4, 2011), <http://www.prnewswire.com/news-releases/cox-to-bring-unbelievably-fair-wireless-plans-to-rhode-island-connecticut-and-cleveland-119188599.html>.

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to “50% of the Cox footprint” later this year.²⁰ Currently Cox is reselling Sprint service while it builds a network using its spectrum.²¹ The appendix to my Declaration contains coverage maps of competitors mentioned herein.²²

B. AT&T Is Organized To Meet Local Competition

12. AT&T’s sales organization is designed in large part to respond to the reality that consumers make their wireless purchasing decisions at the local level—where they can see the devices, speak with sales representatives about the products and services, and comparison shop among competitors. AT&T operates approximately **[Begin Confidential Information]** **[End Confidential Information]** company-owned retail (“COR”) stores in local markets nationwide selling the full range of our wireless products and services. In addition, AT&T has contracts with an additional **[Begin Confidential Information]** **[End Confidential Information]** local dealer stores. The mission of these COR stores and local dealer agents, as well as the thousands of employees and representatives who live and work in the neighboring communities, is to understand our products and services, to understand the needs of the customers in their local community, and to respond to the unique competitive characteristics of each locality on a day-to-day basis. In fact, third party research demonstrates that **[Begin Confidential Information]**

²⁰ Press Release, *Cox Launches Wireless in Oklahoma* (Mar. 29, 2011), <http://coxenterprises.mediaroom.com/index.php?s=43&item=1127>.

²¹ Kelly Riddell, *Cox Communications Takes On AT&T, Verizon With Mobile Offering*, *Businessweek* (Nov. 19, 2010), <http://www.businessweek.com/news/2010-11-19/cox-communications-takes-on-at-t-verizon-with-mobile-offering.html>.

²² See Appendix.

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[End Confidential Information].²³ Precisely where we invest to build and operate a COR store and which local dealer agents we choose to do business with are driven largely by competitive conditions that can vary across the metropolitan areas and smaller communities in which we compete. In addition, AT&T (like many of its competitors) has relationships with the “big box” retail stores, such as Wal-Mart, Best Buy, Costco, Radio Shack, and Target, to ensure that AT&T’s products and service are available to its customers at the local level in **[Begin Confidential Information]** **[End Confidential Information]** of these locations.

Without being embedded like this in the places where our customers live and work, we could not respond as nimbly and effectively as we must to keep up with the intense competition we face. It is no surprise, then, that **[Begin Confidential Information]** **[End Confidential Information]** of AT&T’s gross adds in 2010 came from local retail stores (e.g., company-owned stores, local dealer agent stores, and “big box” retail stores). This percentage is essentially identical to the industry-wide figure, and some carriers, like MetroPCS at **[Begin Confidential Information]** **[End Confidential Information]**, see an even higher percentage of sales through their local outlets.

13. Our regionalized sales organization further enhances our ability to respond quickly and distinctively to local market conditions. AT&T has divided the country into twenty-seven separate geographic regions, each led by a vice president/general manager (“VP/GM”) who is responsible for operations of the COR stores, our relationships with AT&T’s local dealer agents at the local level, and all other sales activities within their respective markets. In fact, the

²³ **[Begin Confidential Information]**The Nielsen Company, *Q4 2010 Nielsen Mobile Retail & Customer Service Insights*, at 17 (Feb. 2011) **[End Confidential Information]**.

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annual performance of these VP/GMs is evaluated, in part, by the profits and losses associated with all sales activity within their markets. They strive to meet unique local customer demand by working with our headquarters marketing team to run local advertising pointing out the advantages of AT&T service in a specific local area, by direct marketing campaigns, and by offering local promotions on handsets and peripheral devices. To further support this effort, our direct mail direct response (“DMDR”) and online marketing and sales efforts are capable of making targeted offers to customers in specific local market areas. VP/GMs also engage in customer life cycle management by focusing on specific customer needs. For example, if a customer has a particular issue with coverage within her residence, she may be offered a microcell solution that is not generally made available to all customers within a locality.²⁴

14. Finally, our wireless network deployment is driven, in large part, by the need to respond to local market conditions. The total number of customers, their overall usage characteristics, the mix of devices, and the unique ways in which customers in a particular city, locality, or venue tend to use their devices can have a dramatic effect on the operation of the wireless network. Our network organization closely monitors how the network is responding to customer demand and usage on the local level, and we make decisions on network investment and improvements largely aimed at improving local customer experience.

²⁴ AT&T, *3G MicroCell*, (“AT&T 3G MicroCell acts like a mini cellular tower in your home or small business environment. It connects to AT&T’s network via your existing broadband Internet service (such as U-verse, DSL or cable) and is designed to support up to four simultaneous users in a home or small business setting.”), <http://www.wireless.att.com/learn/why/3gmicrocell>.

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C. Intense Competition Drives Wireless Carrier Behavior

15. The conduct of the competitors themselves in the marketplace further demonstrates the fiercely competitive nature of the wireless industry. Carriers are offering more for less, investing in next generation wireless networks, lowering prices, and increasing innovation to compete with one another, and they are doing it all at a breakneck pace.

16. To meet consumers' ever growing demand for more and faster wireless broadband capabilities, AT&T and others are investing billions of dollars to improve their networks and coverage. Since 2007, AT&T alone has invested approximately \$21.1 billion to improve its wireless network.²⁵ Since 2009, Clearwire continues to increase the coverage of its WiMAX network,²⁶ providing a robust 4G platform for Sprint and others. Cox is in the process of deploying its 3G network and testing LTE.²⁷ Leap, too, is testing its LTE network with plans to begin deployment in 2011.²⁸ LightSquared is also planning to spend billions of dollars to roll-out combined terrestrial (LTE) and satellite-based broadband wireless services.²⁹

²⁵ AT&T Inc., 2010 Annual Report, at 71 (Feb. 11, 2011), http://www.att.com/Common/about_us/annual_report/pdfs/ATT2010_Full.pdf; AT&T Inc., 2009 Annual Report, at 71 (Feb. 17, 2010), http://www.att.com/Common/about_us/annual_report/pdfs/ATT2009_Full.pdf.

²⁶ See Clearwire Corp., Annual Report (2010 Form 10-K), at 63, 112 (Feb. 22, 2011); see also Press Release, *Clearwire Announces New 4G LTE Technology Trials Expected to Yield Unmatched Wireless Speeds in the U.S.* (Aug. 4, 2010), <http://corporate.clearwire.com/releasedetail.cfm?ReleaseID=551055>.

²⁷ Jeff Baumgartner, *Cox Wireless Is Go for Launch*, Light Reading Cable News (Nov. 19, 2010), http://www.lightreading.com/document.asp?doc_id=200677.

²⁸ See Press Release, *Cricket Enters into 4G Roaming Agreement with LightSquared* (Mar. 22, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1541451&highlight>; Mike Dano, *Leap Acquires Denali, Plans LTE Test Market in 2011*, Fierce Wireless (Sept. 23, 2010), <http://www.fiercewireless.com/story/leap-acquires-denali-plans-lte-test-market-2011/2010-09-23>.

²⁹ LightSquared, *Nationwide LTE Broadband Network*, <http://www.lightsquared.com/what-we-do/network>.

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17. While wireless networks are improving in their coverage, capacity, and capabilities, the prices for wireless products and services have continued to decline substantially for years. Between 1999 and 2009, wireless prices overall have declined by fifty percent (50%).³⁰ As the FCC recently observed, per-minute wireless voice revenue has declined ninety percent (90%) since 1994,³¹ and the average revenue per text message fell by more than seventy percent (70%) between 2005 and 2008.³² In addition, growth in the output of wireless data services has been accompanied by a dramatic decline in prices for data services. AT&T data indicate that average revenue per megabyte (MB) for its subscribers fell almost **[Begin Confidential Information]** **[End Confidential Information]** from 2007 to 2010.

18. These market dynamics of robust network investment, coupled with lower prices, are driving unprecedented innovation throughout the wireless ecosystem. As described in the Declaration of John Donovan, there are remarkable innovations that are literally revolutionizing healthcare, education, social discourse, energy conservation and, more generally, the way Americans live, work, and play.³³ Indeed, mobile applications, which are so ubiquitous today, did not exist in any meaningful way five years ago. Today, every major operating system (e.g., Apple, Android, BlackBerry, Windows Phone 7) has its own application marketplace and

³⁰ This dramatic decline occurred during a period when a number of carriers combined to achieve efficiencies, including the mergers of Bell Atlantic, GTE and Airtouch; SBC's and BellSouth's respective wireless businesses to form Cingular; Cingular and AT&T Wireless; Sprint and Nextel; and Verizon and Alltel. See GAO, *Telecommunications: Enhanced Data Collection Could Help FCC Better Monitor Competition in the Wireless Industry* at 12, 24 (July 2010).

³¹ See *Fourteenth Wireless Report*, 25 FCC Rcd at 11530 ¶¶ 189-190, Table 19.

³² See *Id.* at 11532 ¶ 191, Table 20.

³³ Declaration of John Donovan, Chief Technology Officer, AT&T Inc., ¶¶ 12-13, 29-33. (Apr. 20, 2011) ("Donovan Decl.").

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developer ecosystem. In addition, AT&T and many of its competitors are developing their own applications and also facilitating the development of applications by others.³⁴ This development has resulted in the U.S. recently emerging as the world leader in smartphone applications.³⁵ For example, in 2010, Americans downloaded 2 billion mobile apps, up from just 745 million in 2008, nearly a three-fold increase.³⁶ The “apps economy,” which barely existed in 2008, is expected to generate \$38 billion in sales in 2015.³⁷ According to *The Wall Street Journal*, “[a]most no mobile applications were available to consumers in 2007. Today there are more than a half million, and they're growing at an annual rate of 92%.”³⁸

19. The bottom line is that mobile service providers are working harder than ever to offer a broad array of innovative and differentiated product and service offerings designed to provide a rich and multi-faceted user experience. For example, mobile payment via smartphones is rapidly approaching.³⁹ Personal healthcare also is moving to the mobile device.⁴⁰ U.S.

³⁴ AT&T, *Application Development Center for Universities*, <http://developer.att.com/developer/forward.jsp?passedItemId=3700008>; ATT, *AT&T App Center*, <https://appcenter.wireless.att.com>; Monica Allevan, *GSMA Zeroes in on Apps, Backs Wholesale Model*, *WirelessWeek.com* (Feb. 15, 2010), <http://www.wirelessweek.com/News/2010/02/GSMA-Zeroes-in-on-Apps,-Backs-Wholesale-Model>; see also Donovan Decl. ¶¶ 21-22.

³⁵ Strategy Analytics, *Mobile Application Downloads and Revenue Trend* (Mar. 2011) (showing that the U.S. has the highest number of downloads in the world).

³⁶ *Id.*

³⁷ Remarks of FCC Chairman Julius Genachowski, “The Clock is Ticking,” at 4 (Mar. 16, 2011), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0316/DOC-305225A1.pdf.

³⁸ Opinion, *Net Neutrality Override*, *Wall St. J.*, at 1 (Apr. 12, 2011), <http://online.wsj.com/article/SB10001424052748704529204576257153583865300.html>.

³⁹ Isis, a mobile commerce joint venture between AT&T, T-Mobile USA, and Verizon, has announced pilot programs to allow consumers to use Isis-enabled mobile phones to make point-of-sale purchases. Press Release, *AT&T, T-Mobile and Verizon Wireless Announce Joint Venture to Build National Mobile Commerce Network*, at 1 (Nov. 16, 2010), <http://www.paywiththis.com/#/news/>. Likewise, Google plans to start testing a mobile-point-of-sale payment service in New York and San Francisco. Olga Kharif and Serena Saitto, *Google Is Said to Test Mobile-Payment System With VeriFone*, *Bloomberg* (Mar. 15, 2011), <http://www>.

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consumers can now choose among more than 600 handsets produced by dozens of independent handset manufacturers, including Apple, Dell, HTC, Kyocera, LG, Motorola, Nokia, Palm, Pantech, RIM, Samsung, Sharp, and Sony Ericsson.⁴¹ In addition to smartphones, new “connected devices” are emerging at a staggering rate, such as tablet computers, e-readers, netbooks, medical monitoring devices, automotive, machine-to-machine modules, and a broad array of other devices all of which have become wirelessly enabled. Most of these new connected devices do not offer traditional voice capability, but are data centric, requiring robust mobile broadband networks. Cisco predicts that by 2015, there will be over 7.1 billion mobile connected devices in the world—almost one connected device for every person—and that mobile connected tablets alone will generate as much traffic in 2015 as the entire global mobile network did in 2010.⁴² While the applications and services are as diverse as their creators’ imaginations, they all require one common input—ever increasing amounts of wireless broadband capacity.

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[bloomberg.com/news/2011-03-15/google-is-said-to-ready-payment-test-in-new-york-san-francisco.html](http://www.bloomberg.com/news/2011-03-15/google-is-said-to-ready-payment-test-in-new-york-san-francisco.html). Sprint is also planning tap-and-go payments, ahead of its rivals at Isis. Greg Bensinger, *Sprint Plans Tap-And-Go Payments in 2011, Ahead of Rivals*, Bloomberg (Apr. 4, 2011), <http://www.bloomberg.com/news/2011-04-04/sprint-plans-tap-and-go-payment-service-this-year-to-get-a-jump-on-rivals.html>. Finally, American Express also recently launched a digital payment and commerce platform called Serve. Maria Woehr, *AmEx’s Mobile Payment Scheme to Boost Revenue: Analysts*, TheStreet.com (Mar. 29, 2011) (“The ‘e-wallet’ payment system allows consumers to transact through prepaid funding and is designed to be used on Apple iOS devices, Androids and through Facebook.”), <http://www.thestreet.com/story/11064873/1/amexs-mobile-payment-scheme-to-boost-revenue-analysts.html>.

⁴⁰ Remarks of FCC Chairman Julius Genachowski, CTIA Wireless 2011, at 4-5 (Mar. 22, 2011), (“*Genachowski CTIA Remarks*”), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0322/DOC-305309A1.pdf.

⁴¹ CTIA, *The United States and World Wireless Markets: Competition and Innovation are Driving Wireless Value in the U.S.*, at 11 (May 2009), attached to Letter from Christopher Guttman-McCabe (CTIA) to Marlene Dortch (FCC), GN Docket No. 09-51 (May 12, 2009).

⁴² See *Cisco Visual Network Index: Global Mobile Data Traffic Forecast Update, 2010-2015*, at 2 (Feb. 1, 2011).

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This innovation and exponential growth will not happen without significant investment in spectrum, capacity, and next generation networks.⁴³

IV. Today and Going Forward, AT&T Will Face Competitive Threats on Multiple and Growing Fronts

20. Among the wireless service providers with nationwide networks, Verizon is AT&T's primary competitor, followed by Sprint. However, the AYCE carriers are highly disruptive competitors with their low-cost, no-contract business model; and we face several strong regional competitors. As I describe below, while we compete with T-Mobile USA in many markets, there are fundamental reasons why it does not exert substantial competitive pressure on AT&T.

A. Verizon and Sprint

21. Verizon is AT&T's closest competitor. Verizon is the largest wireless carrier in the United States with over 102 million wireless connections,⁴⁴ and it vigorously competes with AT&T in virtually every local market. It also has the most extensive voice and broadband

⁴³ Remarks of FCC Chairman Julius Genachowski, "The Clock is Ticking," at 9 (Mar. 16, 2011) ("If we don't act, we won't have enough spectrum for mobile broadband, that will have real consequences for consumers, who will face declining service, including dropped calls and Internet connections, slow downloads and high prices. That will have real consequences for innovators looking to build new companies and services on the mobile platform, including life saving health applications, education programs to train our 21st Century workforce, and energy services designed to help save our planet."), http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0316/DOC-305225A1.pdf.

⁴⁴ See Press Release, *Verizon Reports Strong 4Q and Year-End 2010 Results, Highlighted by Cash Flow, Wireless and FiOS Growth*, at 1 (Jan. 25, 2011), <http://news.vzw.com/news/2011/01/pr2011-01-25.html>; AT&T Inc., 2010 Annual Report, at 2 (AT&T had 95.5 million wireless connections as of December 31, 2010).

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coverage of any of our competitors,⁴⁵ has outspent AT&T on advertising in three of the last four years,⁴⁶ **[Begin Confidential Information]**

[End Confidential Information].

22. Sprint is also a tough, significant, and resurgent competitor, with nearly 50 million subscribers.⁴⁷ **[Begin Confidential Information]**

[End Confidential Information]. Sprint's competitive assets include a deep spectrum position and extensive mobile broadband and 4G services (provided over the Clearwire network),⁴⁸ which will make it an ever-increasing competitive threat today and in the future. After a period of declining subscribership, Sprint has recently made significant gains in the marketplace and appears to have the assets to continue to build on its resurgence.⁴⁹

⁴⁵ See Appendix at 4-5 (Verizon coverage maps).

⁴⁶ Kantar Media Strategy, *Top 4 Mobility Spending, FY 2007-2010*, at 1 (Mar. 2011).

⁴⁷ See Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results*, at 4 (Feb. 10, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1796.

⁴⁸ Sprint's 4G network is now reportedly available in 71 markets, covering more than 110 million people. *Id.* at 2; Andrew Munchbach, *Live from CTIA 2010's Day Two Keynote with Sprint CEO Dan Hesse*, BGR, at 11 (Mar. 24, 2010) ("[w]hen you combine Sprint's spectrum position with Clearwire's spectrum position it put us in the strongest place for the future"), <http://www.bgr.com/2010/03/24/live-from-ctia-2010%E2%80%99s-day-one-keynote-with-sprint%E2%80%99s-dan-hesse>.

⁴⁹ See Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results*, at 1-4 (Feb. 10, 2011) (Sprint added 1.1 million subscribers in 4Q 2010), http://newsroom.sprint.com/article_display.cfm?article_id=1796.

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23. In contrast, unlike Verizon and Sprint, T-Mobile USA does not exert strong competitive pressure on AT&T. First, T-Mobile USA is not performing well in the market generally or against AT&T in particular. T-Mobile USA has been losing market share since 2009 and lost contract subscribers in five of the last six quarters.⁵⁰ In the fourth quarter of 2010, T-Mobile USA lost 23,000 net subscribers, and 318,000 net contract subscribers.⁵¹ T-Mobile USA also experiences significantly higher churn than AT&T, Verizon, or Sprint.⁵² In the fourth quarter of 2010, for example, AT&T's churn was 1.32%, Verizon's was 1.34%, and Sprint's was 2.44%, while T-Mobile USA had a churn rate of 3.60%.⁵³ **[Begin Confidential Information]**

[End Confidential Information].

⁵⁰ Press Release, *T-Mobile USA Reports Fourth Quarter 2010 Results*, at 2 (Feb. 25, 2011), <http://s.tmocache.com/Cms/Files/Published/0000BDF20016F5DD010312E2BDE4AE9B/5657114502E70FF3012B5A79D454F2C8/file/TMUSQ42010PressReleaseFinalv2.pdf>; Press Release, *T-Mobile USA Reports Second Quarter 2010 Results*, at 2 (Aug. 5, 2010), <http://s.tmocache.com/Cms/Files/Published/0000BDF20016F5DD010312E2BDE4AE9B/5657114502E70FF3012A436A0A85BF12/file/TMUS%20Q2%202010%20Press%20Release%20FINAL.pdf>; Press Release, *T-Mobile USA Reports Fourth Quarter And Full Year 2009 Results*, at 2 (Feb. 25, 2010), <http://s.tmocache.com/Cms/Files/Published/0000BDF20016F5DD010312E2BDE4AE9B/5657114502E70FF301270BB668BE399A/file/TMUS%20Q4%20Press%20Release%20FINAL.pdf>.

⁵¹ Press Release, *T-Mobile USA Reports Fourth Quarter 2010 Results*, at 2 (Feb. 25, 2011), <http://s.tmocache.com/Cms/Files/Published/0000BDF20016F5DD010312E2BDE4AE9B/5657114502E70FF3012B5A79D454F2C8/file/TMUSQ42010PressReleaseFinalv2.pdf>.

⁵² Current Analysis, *Company Assessment: T-Mobile USA*, at 5 (Jan. 18, 2011) (T-Mobile USA experiences significantly higher churn than national carriers such as AT&T and Verizon because its customer base is more value-oriented and now overwhelmingly skewed towards no-contract subscribers for net additions).

⁵³ See AT&T Inc. 4Q 2010 Investor Briefing, at 2 (Jan. 27, 2011), http://www.att.com/Investor/Financial/Earning_Info/docs/4Q_10_IB_FINAL.pdf; Verizon Investor Quarterly Fourth Quarter 2010, at 5 (Jan. 25, 2011), http://www2.verizon.com/investor/investor-consump/groups/financial/documents/investorrelation/2010_4q_qb.pdf; Declaration of Dennis Carlton, Allan Shampine, and Hal Sider ¶ 89, Table 2 (April 20, 2011) ("Carlton Decl.") (comparing churn rates); Press Release, *T-Mobile USA Reports Fourth Quarter 2010 Results*, at 3 (Feb. 25, 2011), <http://s.tmocache.com/Cms/Files/Published/0000BDF20016F5DD010312E2BDE4AE9B/5657114502E70FF3012B5A79D454F2C8/file/TMUSQ42010PressReleaseFinalv2.pdf>.

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24. Because AT&T views T-Mobile USA as a competitor of limited and declining significance, **[Begin Confidential Information]**

[End

Confidential Information]. For example, T-Mobile USA began promoting its HSPA+ network as 4G in November 2010. However, Sprint already had launched a 4G network in September of 2008,⁵⁴ and Verizon already had announced its plans to launch LTE, which it began advertising as “4G LTE” in December 2010.⁵⁵ **[Begin Confidential Information]**

[End Confidential Information]. Moreover, AT&T’s long-standing advertising campaign—“Nation’s Fastest Mobile Broadband Network”—is based on its network speed advantage, and was in place well before T-Mobile USA began to advertise its 4G launch. AT&T began its “Getting faster with 4G speeds” advertising campaign as an addition to its overall network speed claims to emphasize its migration to 4G. Equally important, **[Begin Confidential Information]**

[End Confidential Information].

25. Finally, AT&T does not view T-Mobile USA as a major competitor for wireless enterprise customers. These are sophisticated purchasers of a broad array of wireline and

⁵⁴ Press Release, *New Sprint Campaign Links Iconic “Firsts” with America’s First 4G Phone, HTC EVO 4G*, at 3 (June 3, 2010), http://newsroom.sprint.com/article_display.cfm?article_id=1533.

⁵⁵ Press Release, *Blazingly Fast: Verizon Wireless Launches The World’s Largest 4G LTE Wireless Network On Sunday, Dec. 5*, at 1 (Dec. 4, 2010), <http://news.vzw.com/news/2010/12/pr2010-12-03.html>.

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wireless telecom services. AT&T primarily competes with Verizon and Sprint when selling to businesses. **[Begin Confidential Information]**

[End Confidential Information].

26. AT&T encounters T-Mobile USA only infrequently when competing for large business accounts. T-Mobile USA's business-oriented offerings are limited compared to those of AT&T, Verizon and Sprint.⁵⁶ **[Begin Confidential Information]**

[End Confidential Information].

27. As discussed below, while T-Mobile USA has a relatively large customer base, it has been a less significant competitor to AT&T on the important dimensions of network quality, devices and innovation. From AT&T's perspective, T-Mobile USA primarily has relied on price as its differentiating factor, which causes T-Mobile USA to position itself differently from AT&T in the marketplace. As a result, T-Mobile USA does not exert material competitive pressure on AT&T. Simply put, AT&T does not generally focus its competitive energies on T-Mobile USA because in our view: 1) T-Mobile USA does not have a strong differentiating network claim; 2) it does not have a marquee device portfolio; and 3) its emphasis on lower, but not the lowest, prices has not resulted in T-Mobile USA winning customers away from AT&T on a net basis.

⁵⁶ Gartner, *Magic Quadrant for U.S. Telecommunications Service Providers*, at 9 (Nov. 3, 2010) ("T-Mobile does not offer compelling enterprise application support or development, or strong enterprise portal capability around change management."), http://www4.sprint.com/servlet/whitepapers/dbdownload/Gartner_MQ_US_Telecom_Service_Providers_Nov2010.pdf?table=whp_item_file&blob=item_file&keyname=item_id&keyvalue=%27d4194dm%27.

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1. Differentiation on the Basis of Network Quality, Both Now and In the Future

28. Network quality is one of the bases on which AT&T competes vigorously today.⁵⁷

Its primary competitors in that arena are Verizon and Sprint. **[Begin Confidential Information]**

[End Confidential Information]. Verizon

has long focused a major part of its marketing efforts on the quality of its network as a key differentiator.⁵⁸ **[Begin Confidential Information]**

[End Confidential Information]. Verizon has

targeted AT&T's network performance in its advertising, focusing on the perceived advantages in its network coverage and reliability.

⁵⁷ **[Begin Confidential Information]**

[End Confidential Information]. Other carriers have attempted to exploit the perception that AT&T's network is of a lesser quality or reliability in their marketing and advertising, making AT&T's customers easier targets for competitors and AT&T service seem less attractive. *See, e.g.*, Anders Bylund, *Sprint Wants Your iPhone*, The Motley Fool (Mar. 22, 2010), <http://www.fool.com/investing/general/2010/03/22/sprint-wants-your-iphone.aspx>; Charles Starrett, *Verizon Debuts New Anti-AT&T iPhone Ad*, iLounge (Feb. 4, 2011), <http://www.ilounge.com/index.php/news/comments/verizon-debuts-new-anti-att-iphone-ad>. Indeed, when Verizon began selling the iPhone in February 2011, it targeted AT&T customers by pointing out AT&T's network quality issues and emphasized its one-liner—"Yes. I can hear you now."—along with its unlimited data plan. *Id.* AT&T understands the importance of winning the network quality issue in the minds of consumers and is committed to turning this situation around.

⁵⁸ *See, e.g.*, Theresa Howard, *'Can you hear me now?' a hit*, USA Today (Feb. 22, 2004), http://www.usatoday.com/money/advertising/adtrack/2004-02-22-track-verizon_x.htm.

29. **[Begin Confidential Information]**

[End Confidential Information]. Verizon is deploying 4G LTE aggressively, using its nationwide 700 MHz footprint.⁵⁹ It has announced plans to expand 4G LTE to 178 markets covering 200 million subscribers by mid-2012 and its entire nationwide footprint by the end of 2013.⁶⁰

30. Likewise, Sprint has aggressively promoted its 4G service. Sprint was the first U.S. carrier to market its service as “4G” and was the first to launch a 4G-capable phone in June 2010.⁶¹ As a result, Sprint has enjoyed a leading position with its 4G claims, which it has used to its advantage. Sprint’s strong spectrum position (particularly when considered in light of Sprint’s controlling interest in Clearwire) and 4G marketing **[Begin Confidential Information]**

[End Confidential Information]. At least two recent surveys suggest that **[Begin Confidential Information]**

[End Confidential Information].⁶² **[Begin Confidential Information]**

⁵⁹ Verizon, *LTE: The Future of Mobile Broadband Technology*, at 3 (2010) (“Within the Verizon Wireless Network, LTE will operate in the 700MHz spectrum...”), http://opennetwork.verizonwireless.com/pdfs/VZW_LTE_White_Paper_12-10.pdf.

⁶⁰ Verizon, *4G LTE: We’re Ready. Are You?*, [http://network4g.verizonwireless.com/#/coverage; Current Analysis, Verizon Wireless Gets Aggressive with LTE Devices and Service Rollout](http://network4g.verizonwireless.com/#/coverage;CurrentAnalysis,VerizonWirelessGetsAggressivewithLTEDevicesandServiceRollout), at 1 (Jan. 6, 2011).

⁶¹ Press Release, *New Sprint Campaign Links Iconic “Firsts” with America’s First 4G Phone, HTC EVOTM 4G*, at 1 (June 3, 2010), http://newsroom.sprint.com/article_display.cfm?article_id=1533.

⁶² **[Begin Confidential Information]**

[End Confidential Information].

[End Confidential Information].

31. **[Begin Confidential Information]**

[End Confidential Information]. Sprint's

CEO has stated that "[w]hen you combine Sprint's spectrum position with Clearwire's spectrum position it put us in the strongest place for the future."⁶³ Sprint's strong spectrum resources ensure that it has the capacity needed to support continued growth in subscribers, usage, and new technology.

32. T-Mobile USA, in contrast to others, does not have a differentiated network position. T-Mobile USA has admitted that it suffered from its late transition to a 3G network,⁶⁴ and unlike Sprint, which first promoted a 4G network, T-Mobile USA's HSPA+ launch appears to have been lost among other carriers' 4G messaging, including advertising from Verizon, Sprint, AT&T and MetroPCS. Even more importantly, as set forth in the Declaration of Dr. Kim Larsen, T-Mobile USA has no clear path to delivering LTE service.⁶⁵ On the other hand,

⁶³ Andrew Munchbach, *Live from CTIA 2010's Day Two Keynote with Sprint CEO Dan Hesse*, BGR, at 11 (Mar. 24, 2010), <http://www.bgr.com/2010/03/24/live-from-ctia-2010%E2%80%99s-day-one-keynote-with-sprint%E2%80%99s-dan-hesse/>.

⁶⁴ Transcript of Briefing by Deutsche Telekom and T-Mobile to Analysts, at 3 (Jan. 20, 2011), (Deutsche Telekom CEO Rene Obermann) ("*Jan. 20, 2011 DT Analyst Briefing*") ("[P]lease remember we came late with spectrum only end of '06. We acquired spectrum and then we are able to build a network. So, we were late with 3G. No question."), http://www.telecom.de/dtag/cms/contentblob/dt/en/979218/blobBinary/transcript_20012011.pdf.

⁶⁵ See Declaration of Dr. Kim Kylesbech Larsen, Senior Vice President, Technology Service and International Network Economics, Deutsche Telekom AG, ¶¶ 9, 23-35 (April 19, 2011).

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AT&T, Verizon, and MetroPCS are aggressively rolling out 4G LTE and Sprint already has a WiMAX network.⁶⁶

2. Differentiation on the Basis of Device Portfolios

33. Another way in which AT&T differentiates itself is in its device portfolio. Here, again, AT&T's primary competitors are Verizon and Sprint. Over the past four years, AT&T has led the wireless broadband revolution, introducing new cutting-edge smartphones and other connected devices that have put the company in a leadership position, based on the number of these devices running on its network.⁶⁷ The launch of the iPhone in July 2007 and the iPhone 3G and Apple App Store in 2008 clearly prompted an explosion of innovation in smartphones and other devices, operating systems, and mobile applications, as competitors tried to find the "iPhone killer." Verizon responded in November 2009 with the introduction of the Droid smartphone based upon Google's Android operating system, and has become a leading proponent of Android devices.⁶⁸ In February 2011, Verizon became the second carrier to offer the iPhone.⁶⁹ In addition, Verizon recently introduced the HTC Thunderbolt, its first 4G LTE smartphone, and has announced that it will launch other LTE smartphones by mid-2011, including the Samsung 4G LTE, the Motorola Droid Bionic, and the LG Revolution.⁷⁰ Verizon,

⁶⁶ See *supra* ¶¶ 29-30; *infra* ¶ 54.

⁶⁷ Carlton Decl. ¶ 20.

⁶⁸ See Verizon Inc., Annual Report (2010 Form 10-K), at 5 (Feb. 28, 2011); Joe Regan, *AT&T Share of Android Up Over 5x Thanks to T-Mobile*, Chitka Insights, (Mar. 22, 2011), <http://insights.chitika.com/2011/att-share-of-android-up-over-5x-thanks-to-t-mobile>.

⁶⁹ Press Release, *Verizon Wireless Has Record Sales On First Day Of iPhone 4* (Feb. 4, 2011), <http://news.vzw.com/news/2011/02/pr2011-02-04.html>.

⁷⁰ See Strategy Analytics, *Verizon Wireless 4G LTE at CES: It's Real, It's Here, Its Impressive* (Jan. 14, 2011); Press Release, *The ThunderBolt By HTC, The First 4G LTE Smartphone For*

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to date, has continued to market unlimited data service on all of these devices,⁷¹ a marketing plan which it clearly uses to differentiate its devices from AT&T's devices that require tiered data plans.⁷²

34. Sprint also has competed aggressively on the basis of its device portfolio. Indeed, Sprint's success with its device portfolio has been key to its successful resurgence and will likely fuel its continued competitive growth. Sprint has been amassing and marketing a portfolio of advanced 4G smartphone devices on the Android operating system, such as the highly successful Samsung Epic 4G and the HTC EVO 4G, ranked as the # 1 and # 2 smartphones, respectively, by PC World magazine.⁷³ Other 4G devices offered exclusively by Sprint include the HTC EVO Shift 4G,⁷⁴ the HTC EVO 3D, which was awarded "Best Smart Phone" and "Best in Show" by Laptop Magazine, and the HTC EVO View 4G tablet, which was rated "Best of CTIA 2011" by

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Verizon Wireless Arrives March 17 (Mar. 15, 2011), <http://news.vzw.com/news/2011/03/pr2011-03-14u.html>.

⁷¹ See Strategy Analytics, *Verizon Wireless 4G LTE at CES: It's Real, It's Here, Its Impressive*, at 2 (Jan. 14, 2011).

⁷² See, e.g., David Goldman & Laurie Segall, *Verizon iPhone Draws Small Crowds*, CNNMoney.com (Feb. 10, 2011) ("But Verizon has a few competitive tricks up its sleeve. It's going after AT&T's customers by offering unlimited data plans for the iPhone for a limited time."), http://money.cnn.com/2011/02/10/technology/verizon_iphone; Roger Cheng, *Verizon iPhone: \$30 Unlimited Data (for Now)*, WSJ Blog (Jan. 25, 2011) (regarding Verizon's \$30 unlimited data plan for iPhone buyers, Verizon's COO Lowell McAdam stated, "I'm not going to shoot myself in the foot," and that not offering an unlimited plan would put up a barrier for customers who might otherwise switch from AT&T), <http://blogs.wsj.com/digits/2011/01/25/verizon-iphone-30-unlimited-data>.

⁷³ See Sprint Nextel 3Q2010 Earnings Conference Call, at 7 (Oct. 27, 2010), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9Njc0MjR8Q2hpbGRJRD0tMXxUeXBIP TM=&t=1>.

⁷⁴ See Michelle Ruhfass, *HTC EVO Shift 4G Android Smartphone for Sprint Revealed by Walmart*, MobileBurn.com (Jan. 3, 2011), <http://www.mobileburn.com/news.jsp?Id=12266>.

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Phonearena.com.⁷⁵ Sprint reportedly will expand its portfolio to eighteen 4G enabled devices in 2011.⁷⁶

35. AT&T does not believe that T-Mobile USA has a particularly compelling portfolio of smartphone offerings as compared to AT&T, Verizon, and Sprint.⁷⁷ It does offer smartphones, but its HTC MyTouch device and Android portfolio have not enjoyed the success of devices like Sprint's HTC EVO 4G,⁷⁸ and its Android and Blackberry devices are similar to those now offered by numerous other carriers, including MetroPCS and Leap.

3. Differentiation on the Basis of Innovation

36. AT&T aggressively competes against Verizon and Sprint on the basis of new and innovative products and services, and that competition is only expected to increase. As explained more fully in the Declaration of John Donovan, AT&T consistently has striven to be the leader in this space and to be the first to market new products and services, as evidenced by the RAZR, iPhone, the iPad, Windows 7 phones, and emerging devices that support everything

⁷⁵ Press Release, *Sprint Awarded Big Honors for HTC EVO 3D, HTC EVO View 4G, Kyocera Echo, MiFi 3G/4G Mobile Hotspot by Novatel Wireless and Google Voice at International CTIA Wireless 2011* (Mar. 29, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1843.

⁷⁶ See Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results* (Feb. 10, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1796.

⁷⁷ The Nielsen Company, *Mobile Insights Highlights Through January 2011: National View*, at 11 (Feb. 15, 2011) (customer survey showing that from Q2 2010 through Q4 2010, T-Mobile USA ranked last compared to AT&T, Verizon, and Sprint customers in "Satisfaction with Handsets").

⁷⁸ See Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results* (Feb. 10, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1796 ("The HTC EVO 4G's award-winning streak continued when it was selected for *Good Housekeeping's* Very Innovative Products Award, which recognizes products that are ingenious breakthroughs.").

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from telematics to telemedicine.⁷⁹ AT&T invests heavily to differentiate itself from the competition with the best device line-up and superior feature capabilities. In our effort to enable third parties to create applications that run on our devices and on our network, AT&T has created the industry's leading carrier application developer program. As a result, AT&T has been voted the best carrier by application developers for the last five years.⁸⁰ It has won a Global Mobile Award (Best Embedded Mobile Product/Device (non-handset) category) at the 2011 Mobile World Congress.⁸¹

37. Verizon and Sprint also continue to be industry innovators. Although MetroPCS was the first to deploy LTE, Verizon now leads the U.S. industry in deploying and promoting LTE technology.⁸² Verizon is already collaborating with 60 product manufacturers and 6,000 application developers to help foster an ecosystem for its new 4G LTE network and devices.⁸³

38. Sprint not only has aggressively advertised its Wi-MAX network, but it also has pursued machine-to-machine technology in many areas, including healthcare, ATM and point-of-

⁷⁹ See Donovan Decl. ¶¶ 17-27.

⁸⁰ See Press Release, *Mobile Developers Rate AT&T Best in North America* (Jan. 19, 2011), (AT&T ranked best in mobile application distribution, tool offerings, supported technologies, and market potential), <http://www.businesswire.com/news/home/20110119005579/en/Mobile-Developers-Rate-ATT-North-America-%E2%80%93>; Evans Data Corporation, *Mobile Development Survey, Volume II*, at 37 (2010); Evans Data Corporation, *Wireless Development Survey, Volume II*, at 125-28 (2009); Evans Data Corporation, *Wireless Development Survey, Volume II*, at 157-160 (2008); Evans Data Corporation, *Targeted Analytics, Volume I*, at 139-144 (2007); Evans Data Corporation, *Mobility Developer Relations Programs Competitive Analysis Report*, at 7-8 (2007).

⁸¹ See Press Release, *AT&T Connected Vitality GlowCaps Wins 2011 Global Mobile Award* (Feb. 16, 2011), <http://www.att.com/gen/press-room?pid=19064&cdvn=news&newsarticleid=31610&mapcode=corporate|innovation-releases>.

⁸² Verizon, *4G LTE: We're Ready. Are You?*, <http://network4g.verizonwireless.com/#/4g-network-verizon-wireless>.

⁸³ See Susan Welsh de Grimaldo, *Verizon Wireless 4G LTE at CES: It's Real, It's Here, Its Impressive*, Strategy Analytics, at 2 (Jan. 14, 2011).

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sale, vehicle fleet tracking, “smart” power grids, kiosks for retail stores, and asset tracking.⁸⁴ Its partners include Panasonic, Dell, Intel, IBM, and Qualcomm.⁸⁵

4. Differentiation on the Basis of Price or the “Value Proposition”

39. For AT&T, the combination of network experience, superior products, and competitive pricing constitutes the “value proposition” that it offers consumers. Many competitors have chosen to compete and differentiate themselves based upon price alone, or a different value proposition.

40. Sprint is aggressively challenging AT&T’s value proposition by promoting a consumer message that extols the combined value of a next generation network, innovative devices and aggressive pricing. Sprint’s value proposition includes attractive unlimited plans at very competitive prices, which it markets aggressively against AT&T.⁸⁶ This strategy has fueled Sprint’s resurgence as a successful competitor to AT&T and will continue to drive Sprint’s success in the future. Sprint’s combination of aggressive pricing, high-end handsets, a strong 4G network and enhanced customer service resulted in Sprint adding approximately 1.8 million net subscribers in 2010.⁸⁷

41. In June 2010, AT&T announced that it would no longer offer an unlimited data plan to new smartphone customers. Sprint capitalized on AT&T’s decision by making its

⁸⁴ Sprint, *M2M: Machine to Machine & Emerging Solutions*, <http://m2m.sprint.com>.

⁸⁵ *Id.*

⁸⁶ See, e.g., Mike Dano, *New Sprint Ad Campaign Hinges on Unlimited Data*, FierceWireless (Apr. 11, 2011), <http://www.fiercewireless.com/story/new-sprint-ad-campaign-hinges-unlimited-data/2011-04-11>.

⁸⁷ Press Release, *Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results* (Feb. 10, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1796.

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unlimited plans a cornerstone of Sprint's marketing against AT&T and other carriers.⁸⁸ For example, Sprint's advertising touted its unlimited data plans, asking "why choose limited 3G from AT&T when you can get unlimited 3G and 4G while on the Sprint Network?" Likewise, Sprint has introduced low-cost voice, data and messaging plans that have appealed to wireless subscribers, especially data-centric AT&T customers.

42. Sprint also has lured subscribers searching for faster data speeds and inexpensive, unlimited data plans. With respect to data speeds, Sprint has taken aim at AT&T smartphone users, promoting the Sprint network as "4G, not faux G."⁸⁹ On data plans, Sprint has emphasized its *Everything* unlimited data plans in its advertising.⁹⁰ In particular, Sprint has targeted iPhone users, touting its HTC EVO 4G device and the price difference between AT&T's plans and its \$69.99 *Everything* unlimited data plan. Sprint recently launched a promotion to lure subscribers by giving them a \$125 service credit to switch to a Sprint smartphone,⁹¹ making it easy for customers to switch before their contract is over.

43. **[Begin Confidential Information]**

⁸⁸ See Press Release, *Sprint CEO Dan Hesse Defines "Unlimited" in New TV Ad* (Mar. 12, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1818.

⁸⁹ Roger Cheng, *Sprint CEO Touts 4G Devices, "Not Faux G,"* WSJ Blog (Mar. 22, 2011), <http://blogs.wsj.com/digits/2011/03/22/sprint-ceo-touts-4g-devices-not-faux-g/>.

⁹⁰ See Press Release, *Sprint CEO Dan Hesse Defines "Unlimited" in New TV Ad* (Mar. 12, 2011), http://newsroom.sprint.com/article_display.cfm?article_id=1818.

⁹¹ See Sprint, *Move Your Number to Sprint. Get a \$125 Service Credit*, http://shop2.sprint.com/en/stores/popups/cl_port_in_credit_125_popup.shtml.

[End Confidential Information].

44. The success of these offerings by Sprint has required AT&T to respond to prevent further inroads on its customer base. **[Begin Confidential Information]**

[End Confidential Information].⁹²

45. MetroPCS and Leap also have sought to capitalize on their value proposition of low cost, no-contract, “all-you-can-eat” bundles of services. For example, on its website MetroPCS advertises and offers a \$40 per month no-contract plan that includes unlimited local and nationwide long distance calling, unlimited text, and unlimited MetroWEB.⁹³ For \$45 per month, MetroPCS customers can add unlimited international text, unlimited caller identification, and certain widgets, among other things.⁹⁴ On its website, Leap (under the Cricket brand) advertises and offers a \$45 per month no-contract plan that includes unlimited anytime and mobile to mobile minutes, long distance, domestic and international text, and mobile web access.⁹⁵

⁹² Phil Goldstein, *AT&T Follows Sprint Into Unlimited Mobile-to-Mobile Calling*, FierceWireless (Feb. 9, 2011), <http://www.fiercewireless.com/print/node/86865>.

⁹³ MetroPCS, *MetroPCS Rate Plans*, <http://www.metropcs.com/plans/default.aspx?tab=family>.

⁹⁴ MetroPCS, *MetroPCS Rate Plans*, <http://www.metropcs.com/plans/default.aspx?tab=family>.

⁹⁵ Cricket, *Cell Phone Plans*, <http://www.mycricket.com/cell-phone-plans>.

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46. While T-Mobile USA competes principally on price/value, it is generally more expensive than the no-contract AYCE carriers such as MetroPCS and Leap. As a result, as T-Mobile USA's CEO Philip Humm has conceded, the company has been "kind of stuck in the middle with unlimited becoming industry standard on one side and T-Mobile USA being attacked from below by the no frills players in the market."⁹⁶ Similarly, as noted by Deutsche Telekom's CEO, Rene Obermann, "[w]e also lack[ed] competitive smart phones and we had a branded distribution gap in comparison to our competitors and all of that made us suffer. It resulted in revenue stalling and valuable contract customers leaving us."⁹⁷ Accordingly, T-Mobile is not an important factor in AT&T's competitive decision-making. Our survey research indicates that **[Begin Confidential Information]**

[End Confidential Information].⁹⁸

While MetroPCS and Leap have a marketing strategy that is similar to T-Mobile USA's, namely, affordable smartphones and data services,⁹⁹ the AYCE carriers have lower prices.¹⁰⁰ In

⁹⁶ *Jan. 20, 2011 DT Analyst Briefing*, at 5 (T-Mobile USA CEO Philip Humm).

⁹⁷ *Jan. 20, 2011 DT Analyst Briefing*, at 3 (Deutsche Telekom CEO Rene Obermann).

⁹⁸ The Nielsen Company, *Q4 2010 Mobile Insights: National Report*, at 68-69 (Jan. 2011).

⁹⁹ *Jan. 20, 2011 DT Analyst Briefing*, at 7, 20 (T-Mobile USA CEO Philip Humm; T-Mobile USA CMO Cole Brodman); MetroPCS, *About MetroPCS*, <http://www.metropcs.com/about/about.aspx>; Final Transcript, *Leap—Q4 2010 International Earnings Conference Call*, at 2 (Feb. 22, 2011), http://www.google.com/url?sa=t&source=web&cd=2&ved=0CCMQFjAB&url=http%3A%2F%2Fphx.corporate-ir.net%2FExternal.File%3Fitem%3DUGFyZW50SUQ9ODM1MzN8Q2hpbGRJRD0tMXxUeXB1PTM%3D%26t%3D1&rct=j&q=LEAP%20-%20Q4%202010%20Leap%20Wireless%20International%20Earnings%20Conference%20Call%20februar%2022%2C%202011&ei=_ZCsTbLzI8_TgQfpkenzBQ&usq=AFQjCNGcTUMha46AU5cmhy6_mE-4OyAUPg&sig2=NgSfhiGIVOnbK51iIB8HmQ.

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addition, as noted above, T-Mobile USA is experiencing higher rates of overall churn (as compared to AT&T, Verizon and Sprint), which may be related to T-Mobile USA's ineffective reliance on price as a differentiator. **[Begin Confidential Information]**

[End Confidential Information].

47. With this acquisition, T-Mobile USA consumers will be able to keep their current rate plans. AT&T will map T-Mobile USA's rate plans into AT&T's billing systems as we have done in the case of prior acquisitions, so that if a T-Mobile USA consumer wishes to change her existing smartphone to a comparable smartphone from AT&T's device portfolio, she will be able to keep her existing data plan.¹⁰¹

B. In Addition to Verizon and Sprint, AT&T Faces Significant and Fast-Growing Competitive Threats

1. No-Contract, "AYCE" Carriers

48. As I mentioned above, a growing and increasingly strong competitive threat comes from low-cost, no-contract, all-you-can-eat ("AYCE") carriers. MetroPCS and Leap Wireless are prime examples of these emerging competitors. **[Begin Confidential Information]**

[End Confidential Information].

Footnote continued from previous page

¹⁰⁰ See Letter from Carl Northrop (for MetroPCS) to Chairman Julius Genachowski (FCC), GN Docket No. 09-191, at 12 n.42 (Feb. 14, 2011) ("*MetroPCS Feb. 14, 2011 Letter*") (comparing MetroPCS unlimited plan prices to higher contract carrier unlimited plan prices); see also Cricket, *Cell Phone Plans*, <http://www.mycricket.com/cell-phone-plans>.

¹⁰¹ There may be rate plans with few customers that might not justify mapping, in which case we will offer those customers an incentive to move to a comparable AT&T rate plan.

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49. No-contract AYCE carriers are very strong, aggressive competitors. Until recently, these carriers competed on price alone. However, the AYCE carriers have enhanced their market disruptor status by moving up-market and offering competing high speed data services over mobile broadband networks, including LTE, coupled with feature-rich smartphones. The new market reality is that these companies are playing an increasingly important role in the wireless marketplace, both growing their share and expanding into new markets. As these competitors continue to compete more effectively on data services, network quality and device portfolio and not just on price, they only will become stronger competitors to AT&T.

a. AYCE Pricing Plans

50. MetroPCS's and Leap's original AYCE model changed wireless industry pricing. They pioneered the concept of unlimited voice plans, which were later adopted by other carriers, and their AYCE plans pressured contract carriers to offer their own unlimited plans at declining prices and without contracts. At the end of 2007, only two carriers offered unlimited voice plans—MetroPCS and Leap.¹⁰² Only months later, in early 2008, Sprint, Verizon, AT&T and T-Mobile USA, all introduced unlimited plans, in that order.¹⁰³ Since then, AT&T, Verizon and T-Mobile USA have lowered the price of their contract unlimited offerings in reaction to the flat-rate plans offered by Sprint's Boost brand, MetroPCS, and Leap.

¹⁰² Sinead Carew, *Unlimited Mobile Plans Spark Price War Concerns*, Reuters (Feb. 19, 2008), <http://www.reuters.com/assets/print?aid=USN1930076320080219>.

¹⁰³ *Id.*; Nicole Lee, *Verizon, AT&T, T-Mobile Implement Unlimited Calling Plans*, CNET News (Feb. 19, 2008), http://news.cnet.com/8301-17938_105-9874425-1.html?tag=mncol%3 btxt.

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51. MetroPCS has achieved success in part by offering nationwide plans at industry-low prices, and aggressively competing against their higher-priced contract carrier rivals. MetroPCS markets unlimited voice, data, and text plans of \$40, \$50, and \$60 per month.¹⁰⁴ As MetroPCS has pointed out to the Commission, as compared to MetroPCS's \$60 product, AT&T's plan with unlimited voice and text, plus 2GB of data, would cost \$114.99, while an unlimited voice, data and text plan costs \$119.98 from Verizon, \$109.99 from Sprint Nextel, and \$99.99 from T-Mobile USA (T-Mobile USA recently introduced another unlimited plan at \$79.99).¹⁰⁵ In September 2008, MetroPCS and Leap signed a reciprocal roaming agreement, which allowed each carrier to offer near nationwide voice service without paying incremental roaming fees to the other.¹⁰⁶ In November 2010, MetroPCS launched its "Metro USA" services, covering ninety percent (90%) of the U.S. population, offering customers the chance to "enjoy unlimited talk, text and Web services wherever they go in the nation;"¹⁰⁷ it now boasts that its footprint is even slightly larger than Sprint's network.¹⁰⁸ MetroPCS also has targeted AT&T in its advertising, comparing AT&T's higher contract prices and its lack of an unlimited data plan.

¹⁰⁴ *MetroPCS Feb. 14, 2011 Letter*, at 9-10.

¹⁰⁵ *MetroPCS Feb. 14, 2011 Letter*, at 12 n.42.

¹⁰⁶ See Press Release, *Leap Wireless International, Inc. and MetroPCS Communications, Inc. Enter into National Roaming Agreement and Spectrum Exchange Agreement and Settle Litigation*, at 1-2 (Sept. 29, 2008), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1203113&highlight=>.

¹⁰⁷ See Press Release, *MetroPCS to Launch Metro USA Nationwide Coverage* (Nov. 4, 2010), <http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irolnewsArticle&ID=1491639&highlight=>.

¹⁰⁸ Transcript of Presentation by MetroPCS Communications, Inc. at Raymond James Institutional Investors Conference, at 1 (Mar. 7, 2011) (MetroPCS Executive VP & CFO Braxton Carter).

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52. Similarly, Leap offers low priced nationwide calling plans without a contract and specifically targets Verizon and AT&T in advertising those plans for example, highlighting that it offers “BlackBerry Smartphone plans for just \$55/month—half the cost of AT&T and Verizon.”¹⁰⁹ Leap also emphasizes that its low-cost unlimited plans include nationwide coverage.¹¹⁰ In the third quarter of 2010, Leap announced that its network covers 277 million people, and began emphasizing that, “[j]ust like all the major cellular carriers in the U.S.,” it offers a “high quality, all-digital network.”¹¹¹ In October 2010, Leap introduced nationwide 3G coverage, including 3G data, through a roaming agreement with Sprint.¹¹² Data roaming coverage is included in certain of Leap’s unlimited plans at no additional charge.¹¹³

53. AT&T has responded to MetroPCS and Leap [**Begin Confidential Information**]

¹⁰⁹ Cricket, *Coverage Comparison*, <http://www.mycricket.com/learn/compare-smartphone-providers/chart>.

¹¹⁰ *Id.*

¹¹¹ Cricket, *The Competitive Cricket Comparison*, <http://www.mycricket.com/learn/compare-cell-phone-providers>.

¹¹² Press Release, *Cricket Announces Launch of Nationwide 3G Data Roaming* (Oct. 19, 2010), <http://www.mycricket.com/press/press-release/Cricket-Announces-Launch-of-Nationwide-3G-Data-Roaming>.

¹¹³ Cricket, *Premium Extended Coverage*, <http://www.mycricket.com/coverage/premium-extended-coverage>.

[End Confidential

Information].

b. AYCE Network Innovation

54. MetroPCS is now deploying LTE throughout its footprint, and was the first carrier in the nation to offer commercial LTE service and an LTE-enabled handset.¹¹⁴ MetroPCS already has launched LTE service in major metro areas of Tampa, Atlanta, Jacksonville, Miami, Orlando, Boston, Dallas-Fort Worth, Detroit, Las Vegas, Los Angeles, New York City, Philadelphia, Sacramento and San Francisco.¹¹⁵ LTE technology has allowed MetroPCS to enjoy greater capacity and to offer higher download speeds on a platform optimized for data service.¹¹⁶ Going forward, MetroPCS plans to implement Voice over LTE (VoLTE) so that it can carry its voice as well as data traffic over LTE, thus freeing up spectrum for redeployment

¹¹⁴ Press Release, *MetroPCS Launches First 4G LTE Services in the United States and Unveils World's First Commercially Available 4G LTE Phone* (Sept. 21, 2010) ("Today, MetroPCS Communications Inc. became the first mobile operator to launch commercial 4G LTE services in the United States"), <http://www.metropcs.com/presscenter/articles/mpcs-news-20100921.aspx>.

¹¹⁵ Press Release, *MetroPCS Launches 4G LTE Service in the Tampa Metropolitan Area* (Apr. 1, 2011), <http://www.metropcs.com/presscenter/newsreleasedetails.aspx?id=17>.

¹¹⁶ *MetroPCS Feb. 14, 2011 Letter* at 6.

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that is currently tied up supporting legacy CDMA service.¹¹⁷ This will increase MetroPCS's bandwidth available for LTE, driving further increases in capacity.¹¹⁸

55. Leap also is taking advantage of the latest network technology. Leap already offers nationwide 3G data coverage¹¹⁹ and is preparing to launch LTE service, having conducted successful LTE tests last year.¹²⁰ Leap recently announced an agreement with LTE wholesale provider LightSquared, which will supplement its own LTE network.¹²¹

c. AYCE Device Portfolios

56. MetroPCS is including smartphones, including Blackberry and Android models such as the 4G Samsung Galaxy Indulge, as an increasingly large part of its device portfolio and its competitive strategy.¹²² MetroPCS's CEO has referred to the coming "Tsunami of Android" smartphones and explained that traditional feature phones are "going the way of the

¹¹⁷ Sue Marek, *MetroPCS' COO on the Pros and Cons of the AT&T-Mobile Deal*, FierceWireless (Mar. 30, 2011), <http://www.fiercewireless.com/story/metropcs-coo-pros-and-cons-at-t-mobile-deal/2011-03-30>.

¹¹⁸ Sascha Segan, *GSMA Exec: Samsung Smartphone with Voice Over LTE Coming to MetroPCS*, PCMagazine (Feb. 10, 2011), http://www.pcmag.com/print_article2/0,1217,a=260495,00.asp?hidPrint=true.

¹¹⁹ Press Release, *Cricket Announces Launch of Nationwide 3G Data Roaming* (Oct. 19, 2010), <http://www.mycricket.com/press/press-release/Cricket-Announces-Launch-of-Nationwide-3G-Data-Roaming>.

¹²⁰ Mike Dano, *Leap Acquires Denali, Plans LTE Test Market in 2011*, FierceWireless (Sept. 23, 2010), <http://www.fiercewireless.com/story/leap-acquires-denali-plans-lte-test-market-2011/2010-09-23>.

¹²¹ Press Release, *Cricket Enters into 4G Roaming Agreement with LightSquared*, at 1 (Mar. 22, 2011), <http://www.lightsquared.com/press-room/in-the-news/cricket-enters-into-4g-roaming-agreement-with-lightsquared>.

¹²² See Press Release, *MetroPCS and Samsung Mobile Unveil the Samsung Galaxy Indulge, the World's First Commercially Available 4G LTE Android Smartphone*, at 1 (Feb. 9, 2011), <http://investor.metropcs.com/External.File?t=2&item=g7rqBLVLuv81UAmrh20Mp9tj3fGPzw7Th9QbgJ4ulFgfATjGENyIQJOg7zJGrI5P0Oj0RwhYxIGvk14TD9Iz3A==>.

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dinosaurs.”¹²³ As of March 2011, one third of MetroPCS’s handset sales this year to date were of Android smartphones.¹²⁴

57. Smartphones also are a key to the Leap device portfolio; it now offers affordable Android phones, as well as low-cost Blackberry devices.¹²⁵ Whereas only ten percent of Leap’s customer base had moved to smartphones by year-end 2010, smartphones—including Android, Windows, and Blackberry devices—in December 2010 accounted for forty percent (40%) of Leap’s new handset sales.¹²⁶ Leap is now “committed to the smartphone category.”¹²⁷ As their CEO has stated, “We have now got the devices, the service plans, and the nationwide 3G coverage our customers want. . . . The result is a significant increase in customer lifetime value which validates that we’re making the right investments in the right places.”¹²⁸

58. As mentioned above, AT&T has just announced its first no-contract smartphone offer—the LG Thrive—on April 17, 2011 in response to this competition.¹²⁹

¹²³ Transcript of MetroPCS Communications, Inc. at Credit Suisse Group Convergence Conference, at 2 (March 9, 2011) (MetroPCS CEO Roger Linquist) (“*MetroPCS at Credit Suisse Convergence Conference*”); Final Transcript, *PCS—MetroPCS Communications, Inc. at Morgan Stanley Technology, Media & Telecom Conference*, at 2 (Mar. 3, 2011) (“*MetroPCS Morgan Stanley Conference Transcript*”).

¹²⁴ *Id.* at 2.

¹²⁵ Leap, *Shop Phones*, <http://www.mycricket.com/cell-phones2>.

¹²⁶ Final Transcript, *LEAP—Q4 2010 Leap Wireless International Earnings Conference Call*, at 6 (Feb. 22, 2011), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQDM1MzN8Q2hpbGRJRD0tMXxUeXBIPtM=&t=1> (“*Leap Q4 2010 Earnings Call*”).

¹²⁷ Mike Dano, *Leap Plans Wi-Fi-only ViewSonic Android Tablet, More Android Smartphones*, FierceWireless (Mar. 24 2011), <http://www.fiercewireless.com/ctialive/story/leap-plans-wi-fi-only-viewsonic-android-tablet-more-android-smartphones/2011-03-24>.

¹²⁸ *Leap Q4 2010 Earnings Call* at 2.

¹²⁹ Press Release, *AT&T and LG Launch First Smartphone for GoPhone*, at 1 (Apr. 12, 2011), <http://www.att.com/gen/press-room?pid=19623&cdvn=news&newsarticleid=31797>.

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d. AYCE Growth Prospects

59. The compelling value proposition of the no-contract AYCE carriers' nationwide voice and data plans, coupled with offerings of sophisticated smartphones and advanced networks, is attracting subscribers **[Begin Confidential Information]**

[End Confidential Information]. As a result, the no-contract wireless segment continues to grow, and no-contract carriers are experiencing double-digit annual subscriber growth. MetroPCS reported that one analyst predicted that the no-contract AYCE carriers will grow twenty-four percent (24%) between 2009 and 2013; in contrast, contract carrier subscribers are predicted to grow by only two percent (2%).¹³⁰ MetroPCS and Leap are expanding into a rapidly increasing number of markets, including (between them) 22 of the top 25, and their total subscribership has been increasing rapidly since mid-2008—in MetroPCS's case, by approximately seventy-six percent (76%).¹³¹

60. Since entering the marketplace in 2002, MetroPCS has quickly grown from roughly 500,000 subscribers to more than 8.1 million today—a sixteen-fold increase in less than ten years.¹³² In just the last year, MetroPCS increased its subscriber base by almost twenty-three

¹³⁰ Presentation of MetroPCS at Bank of America Credit Conference, at 11 (November 17, 2010), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDA3MjY1fENoaWxkSUQ9NDE2NjIzfFR5cGU9MQ==&t=1> (“*MetroPCS Bank of America Credit Conference*”).

¹³¹ Press Release, *MetroPCS Reports Second Quarter 2008 Results* (Aug. 7, 2008), <http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-newsArticle&id=1184673> (reporting that as of June 30, 2008, MetroPCS had 4,598,049 subscribers); MetroPCS Communications Inc., Annual Report (2010 Form 10-K), at 6 (March 1, 2011) (“As of December 31, 2010, we had over 8.1 million subscribers.”).

¹³² *MetroPCS Bank of America Credit Conference* at 13; MetroPCS Communications Inc., Annual Report (2010 Form 10-K), at 6 (March 1, 2011).

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percent (23%).¹³³ MetroPCS added nearly 300,000 *net* subscribers in the fourth quarter of 2010 alone.¹³⁴ MetroPCS has been vocal about its intentions to attract even more contract subscribers from carriers like AT&T, stating publicly that it plans to “have a greater parity with the post pay or contract [carriers] in terms of handsets and services that we can offer.”¹³⁵

61. MetroPCS has expanded into numerous markets, including 12 of the 25 most populous DMAs, and achieved a significant market presence in many parts of the country. In Miami, for example, **[Begin Confidential Information]**

[End Confidential Information]. MetroPCS also had notable success elsewhere in Florida and in parts of Texas, Michigan, Georgia and Northern California. Indeed, MetroPCS is estimated to have achieved a double digit (or near double digit) market share in **[Begin Confidential Information]**

[End Confidential Information]. MetroPCS’s share is now estimated to exceed T-Mobile USA’s in **[Begin Confidential Information]**

¹³³ According to MetroPCS’s 2009 and 2010 10-K filings, MetroPCS had 6.6 million subscribers as of December 31, 2009 and 8.1 million subscribers as of December 31, 2010; this is approximately a 22.7% y-o-y increase. MetroPCS Communications Inc., Annual Report (2010 Form 10-K), at 6 (March 1, 2011); MetroPCS Communications Inc., Annual Report (2009 Form 10-K), at 5 (March 1, 2010).

¹³⁴ MetroPCS, Annual Report (2010 Form 10-K), at 71 (March 1, 2011).

¹³⁵ *MetroPCS at Credit Suisse Convergence Conference* at 1.

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[End Confidential Information] Indeed, MetroPCS has more retail locations in San Francisco and Boston than AT&T has. MetroPCS's churn has declined from 5.3% in the fourth quarter of 2009 to 3.5% in the last quarter of 2010. MetroPCS's fourth quarter churn rate is the lowest rate among the no-contract carriers we track, [Begin Confidential Information]

[End Confidential Information].

62. Likewise, Leap has reported that it is "seeing an accelerating shift from postpaid to prepaid" and has predicted that "the wireless industry will remain competitive, particularly as companies like ours continue to lead the shift from postpaid to prepaid, as consumers reexamine the value proposition and the consumer flight to value continues."¹³⁶ Leap also has grown rapidly, expanding its subscriber base from 1.47 million to 5.5 million customers in 7 years, a 379% increase.¹³⁷ Leap added 107,000 net subscribers in the fourth quarter of 2010 alone,¹³⁸ and projects to add 300,000 more subscribers in the first quarter of 2011.¹³⁹ Leap offers service,

¹³⁶ Final Transcript, *LEAP—Q1 2010 Leap Wireless International Earnings Conference Call*, at 3, 8 (May 6, 2010), ("*Leap Q1 2010 Earnings Call*") ("we're seeing an accelerating shift from postpaid to prepaid that's garnering more and more focus at the national level by our existing and potential customers. Our experience in prepaid means we are well positioned to be a winner in this transition We expect that the wireless industry will remain competitive, particularly as companies like ours continue to lead the shift from postpaid to prepaid, as consumers reexamine the value proposition and the consumer flight to value continues.").

¹³⁷ See Leap Wireless International Inc., Annual Report (2010 Form 10-K) at 2; Press Release, *Leap Reports Results for Fourth Quarter and Full Year 2004; Company Provides Preliminary Results for the First Quarter of 2005 and Revised Full-Year Outlook*, at 16 (May 11, 2005), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=721622&highlight=>.

¹³⁸ Press Release, *Leap Announces Net Customer Additions for Fourth Quarter and Full Year 2010* (Jan. 4, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1531478&highlight=>.

¹³⁹ Press Release, *Leap to Provide Updates on Business Performance at International CTIA Wireless Conference* (Mar. 21, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1541267&highlight=>.

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including nationwide 3G data service, in 35 states and the District of Columbia,¹⁴⁰ including 11 of the most populous 25 DMAs. According to our estimates, Leap has double-digit subscriber shares in **[Begin Confidential Information]**

[End Confidential

Information]. Finally, Leap's, churn rate declined to 4.0% in the fourth quarter of 2010, down from 4.7% a year earlier.

2. Regional and Local Carriers

63. Most customers make their purchasing decisions at the local level where they live, work and shop. As a result, regional and local carriers that have established a strong brand and distribution presence are successful competitors in the areas where they sell service. Many regional carriers offer nationwide plans and nationwide coverage (via roaming agreements) similar in scope to that of AT&T, as evidenced by the maps on each carrier's website.¹⁴¹ They also offer smartphones, including advanced and popular Android devices, and at least two of the larger regional carriers are developing advanced LTE networks.¹⁴²

¹⁴⁰ *Id.*

¹⁴¹ *See* Appendix at 14-18.

¹⁴² *Id.*

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64. One of our strongest regional competitors is U.S. Cellular, which has a geographically diverse footprint, offering nationwide service to customers in such major cities as Chicago, Milwaukee, St. Louis, Oklahoma City, Des Moines, Tulsa, and Portland, Maine. US Cellular's coverage map is attached to my Declaration.¹⁴³

65. All told, U.S. Cellular serves over 6 million customers in more than 70 markets within 26 U.S. states,¹⁴⁴ and its network covers 90 million POPs,¹⁴⁵ which is roughly thirty percent (30%) of the nation's population. According to AT&T's internal estimates, U.S. Cellular has double-digit and sometimes commanding shares of many markets in which T-Mobile USA and AT&T also compete, including **[Begin Confidential Information]**

[End Confidential Information].

66. U.S. Cellular's network coverage and device portfolio is similar to other providers. In 2010, it expanded its device portfolio to include Android operating system devices, such the LG Optimus U, the LG Apex, Samsung Galaxy Tab, Samsung Mesmerize (a Galaxy S smartphone), Acclaim, and HTC Desire.¹⁴⁶ U.S. Cellular plans to introduce 13 new smartphones

¹⁴³ See Appendix at 14-15.

¹⁴⁴ U.S. Cellular Corp., Annual Report (Form 2010 10-K), at 1 (Feb. 26, 2011).

¹⁴⁵ Press Release, *U.S. Cellular Reports Fourth Quarter 2010 Results*, at 4 (Feb. 24 2011), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODYyNTZ8Q2hpbGRJRjRD0tMXxUeXBIPtM=&t=1>.

¹⁴⁶ Press Release, *U.S. Cellular to Launch the LG Optimus U, Its Latest Android-Powered Device For 2010*, at 1 (Dec. 7, 2010), <http://www.uscellular.com/about/press-room/2010/USCELLULAR-TO-LAUNCH-THE-LG-OPTIMUS-U-ITS-LATEST-ANDROID-POWERED-DEVICE-FOR-2010.html>.

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this year, including additional Android, Blackberry and Windows Mobile 7 devices.¹⁴⁷

Customers will be able to use these advanced devices with one of US Cellular's nationwide voice and 3G data plans.¹⁴⁸ U.S. Cellular's wireless service will become even more compelling to consumers after it launches its LTE network in 2012.¹⁴⁹ U.S. Cellular appears to serve its customers well. It was one of only 40 companies in twenty major industries to earn a customer service award from J.D. Power, and enjoys one of the lowest churn rates in the industry (1.5% in Q4 2010).¹⁵⁰

67. Cincinnati Bell is another significant regional competitor. According to our estimates, Cincinnati Bell has a higher market share **[Begin Confidential Information]**

[End Confidential Information]. It offers nationwide service plans that are competitive with those of AT&T and other carriers.¹⁵¹ One reason for Cincinnati Bell's success is its aggressive advertising and 3G network. Moreover, it offers Blackberry and Android phones, and claims that its network is faster than AT&T's network.

¹⁴⁷ US Cellular Fourth Quarter 2010 Results and 2011 Guidance Slideshow Presentation, at 18 (Feb. 24, 2011), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODYyNTd8Q2hpbGRJRD0tMXxUeXBIPtM=&t=1>.

¹⁴⁸ USCellular.com, *Data and Internet*, <http://www.uscellular.com/plans/data.html>.

¹⁴⁹ The Yankee Group, *US is Fast Becoming a Key 4G Proving Ground*, at 4 (Feb. 2011).

¹⁵⁰ Press Release, *U.S. Cellular Reports Fourth Quarter 2010 Results*, at 1 (Feb. 24, 2011) ("Retail postpaid churn improved to 1.5 percent from 1.6 percent; postpaid customers comprised 95 percent of retail customers."), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODYyNTZ8Q2hpbGRJRD0tMXxUeXBIPtM=&t=1>; Press Release, *U.S. Cellular and TDS Telecom Recognized as J.D. Power 2011 Customer Service Champions* (Feb. 17, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=106793&p=irol-newsArticle&ID=1530190&highlight=>.

¹⁵¹ Cincinnati Bell, *Wireless Rate Plans*, http://www.cincinnati-bell.com/consumer/wireless/rate_plans/.

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68. Cellular South is another strong competitor in its service area, which includes Mississippi, and parts of Alabama and Tennessee. Cellular South's coverage map is attached to my Declaration. It launched a "*Nationwide Talk Unlimited*" plan for \$59.99 in February¹⁵² and has been targeting AT&T subscribers. In fact, Cellular South launched a webpage that specifically solicits AT&T customers: "From coast to coast, we've handpicked the best networks to give you better coverage in far more places than AT&T" and "Our Smartphone Unlimited Plan is a first-of-its-kind value! Get unlimited talk, text, email, and web at a price that saves you over \$40/month compared to AT&T or Verizon."¹⁵³ Cellular South also has been offering to pay the early termination fees customers would pay upon leaving for Cellular South. AT&T responded to this offer in April 2010 by giving certain customers a \$150 credit if they remained with AT&T.

3. New Competitors Continue To Emerge

69. In addition to the more conventional competitors described above, AT&T also competes with new, non-traditional competitors such as wholesale providers and cable companies.

70. The wholesale business model that Clearwire introduced over the last two years, and that LightSquared has announced it will pursue, has the potential to change the wireless industry. LightSquared's CEO recently predicted that wholesale wireless would be profoundly

¹⁵² Michelle Ruhfass, *Cellular South Introduces Nationwide Talk Unlimited Plan*, Mobile Burn (Feb. 15, 2011), <http://www.mobileburn.com/pressrelease.jsp?Id=13063>.

¹⁵³ Cellular South, *Discover the Cellular South Difference AT&T Customers*, <http://www.cellularsouth.com/DiscoverCenter/why-cs/att.jsp>.

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disruptive to current wireless carriers.¹⁵⁴ According to LightSquared's CEO, its "wholesale-only" business model will allow new entrants such as cable companies, device manufacturers and national retailers like Best Buy to enter the market without the cost of building a network by buying 4G network service wholesale from carriers like LightSquared.¹⁵⁵

71. Clearwire is deploying and operating a mobile wireless network based on WiMAX technology, and is conducting LTE technology trials.¹⁵⁶ Clearwire has a wholesale agreement with its investors under which they can purchase mobile broadband capacity for resale to consumers. For example, its majority-owner Sprint purchases wholesale capacity from Clearwire, which it offers to its customers who purchase its 4G smartphones.¹⁵⁷ Also in March 2011, pursuant to a July 2010 agreement,¹⁵⁸ Clearwire unveiled WiMAX-based 4G mobile broadband service¹⁵⁹ in connection with Best Buy's recently introduced MVNO, Best Buy

¹⁵⁴ David Goldman, *LightSquared's Big Gamble: A Brand-new Wireless Network*, CNN Money, (July 21, 2010) ("LightSquared will be a disruptive force in the U.S. wireless landscape by democratizing wireless broadband services," LightSquared CEO Sanjiv Ahuja said in a prepared statement. "We're not only delivering exciting opportunities for manufacturers and retailers, but also real change for consumers."), http://money.cnn.com/2010/07/21/technology/lightsquared_wireless_network/index.htm.

¹⁵⁵ Remarks of LightSquared Chairman & CEO Sanjiv Ahuja, CTIA Wireless 2011 (Mar. 23, 2011), <http://daily.ctia.org/wireless2011/>; see also LightSquared, *A Revolutionary Approach to Mobile Broadband*, <http://www.lightsquared.com/what-we-do/>; LightSquared, *Nation's First Wholesale-Only Network*, <http://www.lightsquared.com/what-we-do/operating-model/>.

¹⁵⁶ Clearwire Corp., Annual Report (2010 Form 10-K), at 3 (Feb. 22, 2011); Press Release, *4G LTE Technology Trials*, <http://www.clearwire.com/company/featured-story>.

¹⁵⁷ Clearwire Corp., Annual Report (2010 Form 10-K), at 4, 10 (Feb. 22, 2011).

¹⁵⁸ Press Release, *Best Buy(R) and Clearwire(R) Unveil Strategic Wholesale Relationship and Plans to Offer Newly Branded 4G Mobile Broadband Service in the U.S.*, at 1 (July 29, 2010), <http://corporate.clearwire.com/releasedetail.cfm?ReleaseID=551070>.

¹⁵⁹ Clearwire Corp., Annual Report (2010 Form 10-K), at 3, 8 (Feb. 22, 2011).

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Connect.¹⁶⁰ Clearwire and Locus Telecommunications (Locus) also recently have announced a new 4G wholesale agreement.¹⁶¹ According to the announcement, the agreement “will enable Locus to add prepaid 4G mobile broadband service, via Clearwire’s 4G network, to the company’s wide array of telecommunications products.”¹⁶² Clearwire also operates a retail WiMAX mobile broadband service.¹⁶³

72. Just last month, LightSquared, the newest wholesale provider, announced that it had entered into two wholesale agreements. LightSquared entered into a long-term 4G roaming agreement with Leap to allow its operating subsidiary, Cricket, to supplement the LTE coverage that it plans to deploy across its own networks over the next few years.¹⁶⁴ Further, LightSquared announced that Best Buy has agreed to become a mobile virtual network operator (“MVNO”) on

¹⁶⁰ Press Release, *Best Buy ConnectSM Launches 4G Mobile Broadband Service Via Clearwire*, at 1 (Mar. 28, 2011), <http://corporate.clearwire.com/releasedetail.cfm?ReleaseID=560242>.

¹⁶¹ Press Release, *Clearwire and Locus Telecommunications Announce New 4G Wholesale Agreement*, at 1 (Apr. 7, 2011), <http://corporate.clearwire.com/releasedetail.cfm?ReleaseID=563465>.

¹⁶² Press Release, *Clearwire and Locus Telecommunications Announce New 4G Wholesale Agreement*, at 1 (Apr. 7, 2011), <http://corporate.clearwire.com/releasedetail.cfm?ReleaseID=563465>.

¹⁶³ Geoff Duncan, *Clearwire Expects “Imminent” Solution to Sprint Feud*, Digital Trends (Feb. 18, 2011), <http://www.digitaltrends.com/mobile/clearwire-expects-imminent-solution-to-sprint-feud/>.

¹⁶⁴ Press Release, *Cricket Enters into 4G Roaming Agreement with LightSquared*, (Mar. 22, 2011), <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1541451&highlight=>.

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its network with an initial trial of the branded service expected in the first quarter of 2012.¹⁶⁵

LightSquared is reported to be negotiating with several other potential customers.¹⁶⁶

73. Cox Communications, the third largest cable TV company in the U.S.¹⁶⁷ entered into the wireless business in November 2010,¹⁶⁸ and offers “Nationwide coverage within the 50 U.S. states with no domestic roaming fees.”¹⁶⁹ Cox currently provides service in Omaha, Nebraska; Hampton Roads, Virginia; Orange County, California; Oklahoma City, Oklahoma; and Tulsa, Oklahoma, and recently announced it will soon offer service in Cleveland, Ohio, Connecticut and Rhode Island. It has plans to bring its wireless service to more than 50 percent of the more than 6 million residences and businesses, which it already serves with cable television service.¹⁷⁰

74. Cox is positioned to grow rapidly. It currently owns spectrum in several additional CMAs, including San Diego, Phoenix, and New Orleans, and is already testing LTE in

¹⁶⁵ Chloe Albanesius, *LightSquared, Best Buy Ink 4G Wireless Deal*, PC Magazine (Mar. 23, 2011), <http://www.pcmag.com/article2/0,2817,2382508,00.asp>.

¹⁶⁶ Andrew Parker and Paul Taylor, *LightSquared in Contract Talks*, Financial Times (Mar. 27, 2011), <http://www.ft.com/cms/s/0/807dea44-5898-11e0-9b8a-0144feab49a.html#axzz1JZeLzzdX>.

¹⁶⁷ Press Release, *Cox Launches Wireless in Oklahoma* (March 29, 2011), <http://coxenterprises.mediaroom.com/index.php?s=43&item=1127>.

¹⁶⁸ Press Release, *Cox to Bring Unbelievably Fair Wireless Plans to Rhode Island Connecticut and Cleveland* (Apr. 4, 2011), <http://www.prnewswire.com/news-releases/cox-to-bring-unbelievably-fair-wireless-plans-to-rhode-island-connecticut-and-cleveland-119188599.html>.

¹⁶⁹ Cox Wireless, *Service Pricing*, <http://ww2.cox.com/residential/omaha/wireless/terms-and-conditions.cox>.

¹⁷⁰ Press Release, *Cox Launches Wireless in Oklahoma* (March 29, 2011), <http://coxenterprises.mediaroom.com/index.php?s=43&item=1127>; Press Release, *Cox to Bring Unbelievably Fair Wireless Plans to Rhode Island Connecticut and Cleveland* (Apr. 4, 2011), <http://www.prnewswire.com/news-releases/cox-to-bring-unbelievably-fair-wireless-plans-to-rhode-island-connecticut-and-cleveland-119188599.html>.

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Arizona and San Diego.¹⁷¹ Given its ability to market wireless service on a bundled basis to its cable television subscribers, it has a ready-made installed base of customers.¹⁷² Cox also has a history of using this installed base to its advantage, as demonstrated by its success in the landline telephone business, where within ten years it went from a new entrant to capturing over forty percent (40%) market share in some markets.¹⁷³

75. In summary, we believe that new competitors in the wireless marketplace will expand the competitive landscape beyond what we see today, resulting in aggressive marketing and distribution of new wireless products and services and offering even more choices for consumers.

V. By Providing AT&T With Needed Spectrum, This Merger Will Increase Output and Sales

76. The U.S. wireless industry has experienced an explosive growth in demand for mobile broadband services in recent years, and this trend will accelerate in the future.¹⁷⁴ Over the past four years, AT&T has led the wireless broadband revolution with the iPhone, iPad and other devices. As explained in the Declaration of William Hogg, due to its position at the forefront of the mobile broadband revolution and the popularity of its device portfolio, AT&T's

¹⁷¹ Jeff Baumgartner, *Cox Wireless is Go for Launch*, Light Reading Cable (Nov. 19, 2010), http://www.lightreading.com/document.asp?doc_id=200677&site=lr_cable; Spectrum Chart.

¹⁷² Allie Winter, *Executive Interview: Cox's Stephen Bye*, (Sept. 21 2009), <http://www.rcrwireless.com/ARTICLE/20081204/WIRELESS/812039973/executive-interview-cox-8217-s-stephen-bye>.

¹⁷³ Allie Winter, *Executive Interview: Cox's Stephen Bye*, (Sept. 21 2009), <http://www.rcrwireless.com/ARTICLE/20081204/WIRELESS/812039973/executive-interview-cox-8217-s-stephen-bye>.

¹⁷⁴ For example, Strategic Analytics reports that the average monthly handset data traffic per user almost doubled between 2009 and 2010, and will increase more than nine-fold between 2010 and 2015. *Handset Data Traffic (2009-2015)*, Strategic Analytics (March 2011).

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mobile broadband network has been strained by this exponential growth in data traffic and, as a result, faces unique impending capacity constraints, which require additional capacity.¹⁷⁵

77. AT&T's lack of sufficient network capacity to meet its customers' increasing demands for wireless broadband **[Begin Confidential Information]**

[End Confidential Information].

78. AT&T's marketing strategy is focused on offering its customers devices, products and services that are at the cutting edge of technology. There are several examples of new products and services that will increase output and sales when this transaction is approved. The best example of this current limitation is video. Consumers are increasingly demanding new mobile video applications and features, like video chat. By their very nature, these applications and features are highly bandwidth intensive. **[Begin Confidential Information]**

¹⁷⁵ Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services Inc., ¶¶ 3-9 (April 20, 2011) ("Hogg Decl.").

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[End Confidential Information].

Another example is connected devices. While AT&T has been a leader in this space,¹⁷⁶ new connections to the network in many cases require additional bandwidth. **[Begin Confidential Information]**

[End Confidential Information].

79. For the reasons provided in the declarations of my colleagues, Bill Hogg, John Donovan, and Rick Moore, the additional spectrum and network capacity from the acquisition of T-Mobile USA will further enable AT&T to innovate and offer consumers the new devices, products and services, applications, and features they expect and demand.¹⁷⁷ These offerings, in turn, will increase sales as customers seek to take advantage of the innovation and resulting new devices, product and services, and features and applications.

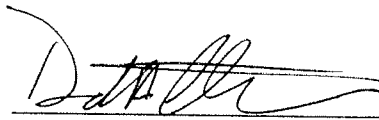
80. In short, the proposed transaction and the resulting network and spectrum benefits will increase our ability to compete in a fiercely competitive wireless marketplace. The transaction will enable AT&T to bring to market a broader range of products and services in a more timely, efficient, and competitive manner. This is the essential element of AT&T's marketing strategy and the basis for our ability to attract and retain customers which, in turn, challenges our competitors to compete on the quality and pricing of their service offerings.

¹⁷⁶ AT&T Inc. 2010 Annual Report, at 28 (Feb. 11, 2011), http://www.att.com/Common/about_us/annual_report/pdfs/ATT2010_Full.pdf.

¹⁷⁷ Hogg Decl. ¶¶ 10-15; Donovan Decl. ¶¶ 44-49; Declaration of Rick L. Moore, Senior Vice President of Corporate Development, AT&T Inc., ¶¶ 23, 28 (April 20, 2011).

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 17, 2011.

Signed:

A handwritten signature in black ink, appearing to read "D. Christopher", written over a horizontal line.

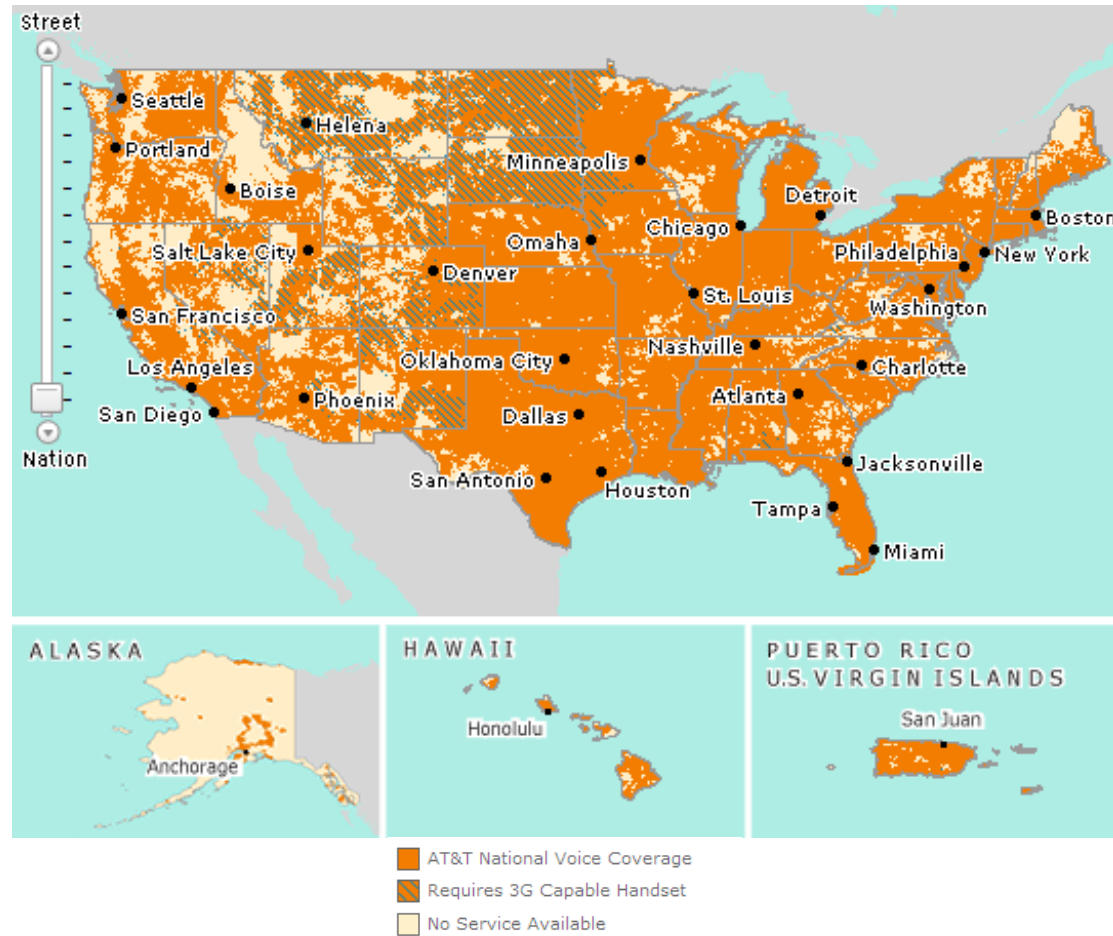
David A. Christopher
Chief Marketing Officer
Mobility and Consumer Markets
AT&T Mobility Services LLC

Appendix

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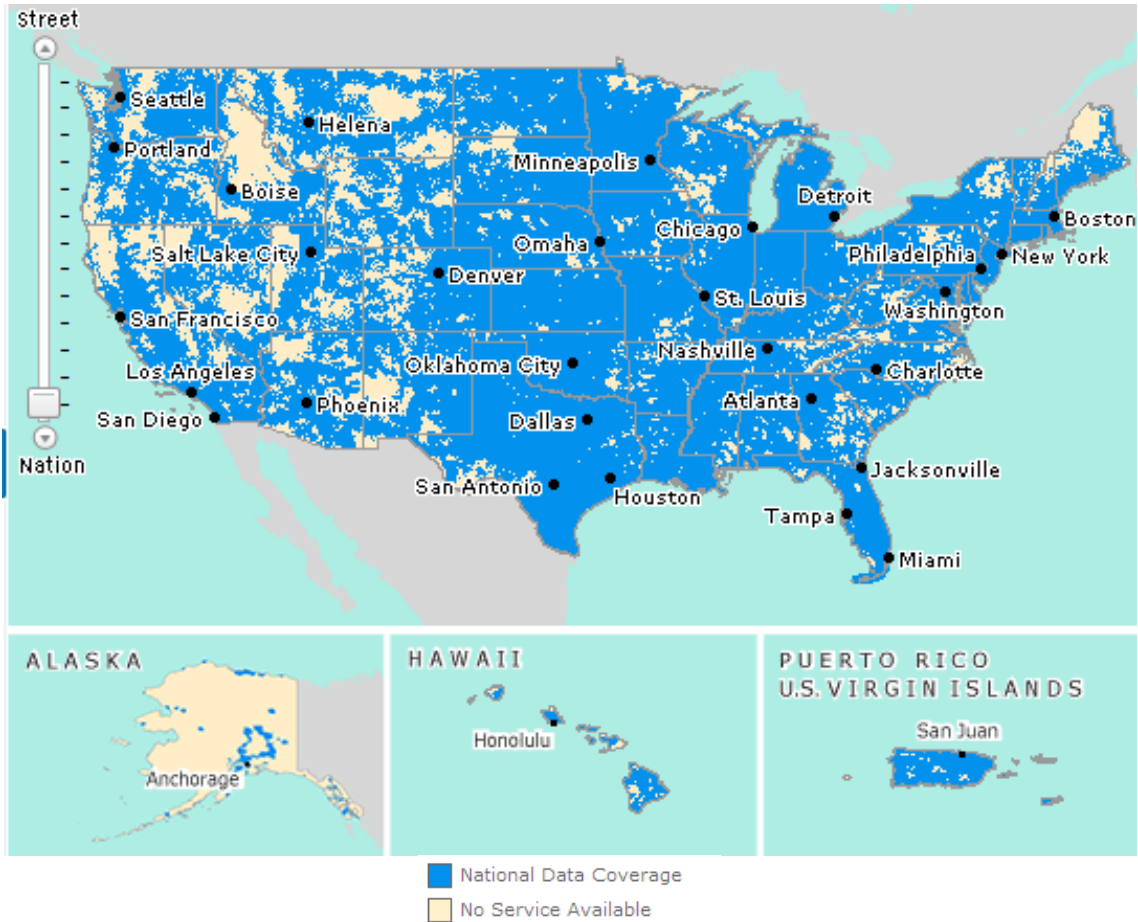
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AT&T Voice Coverage Map¹



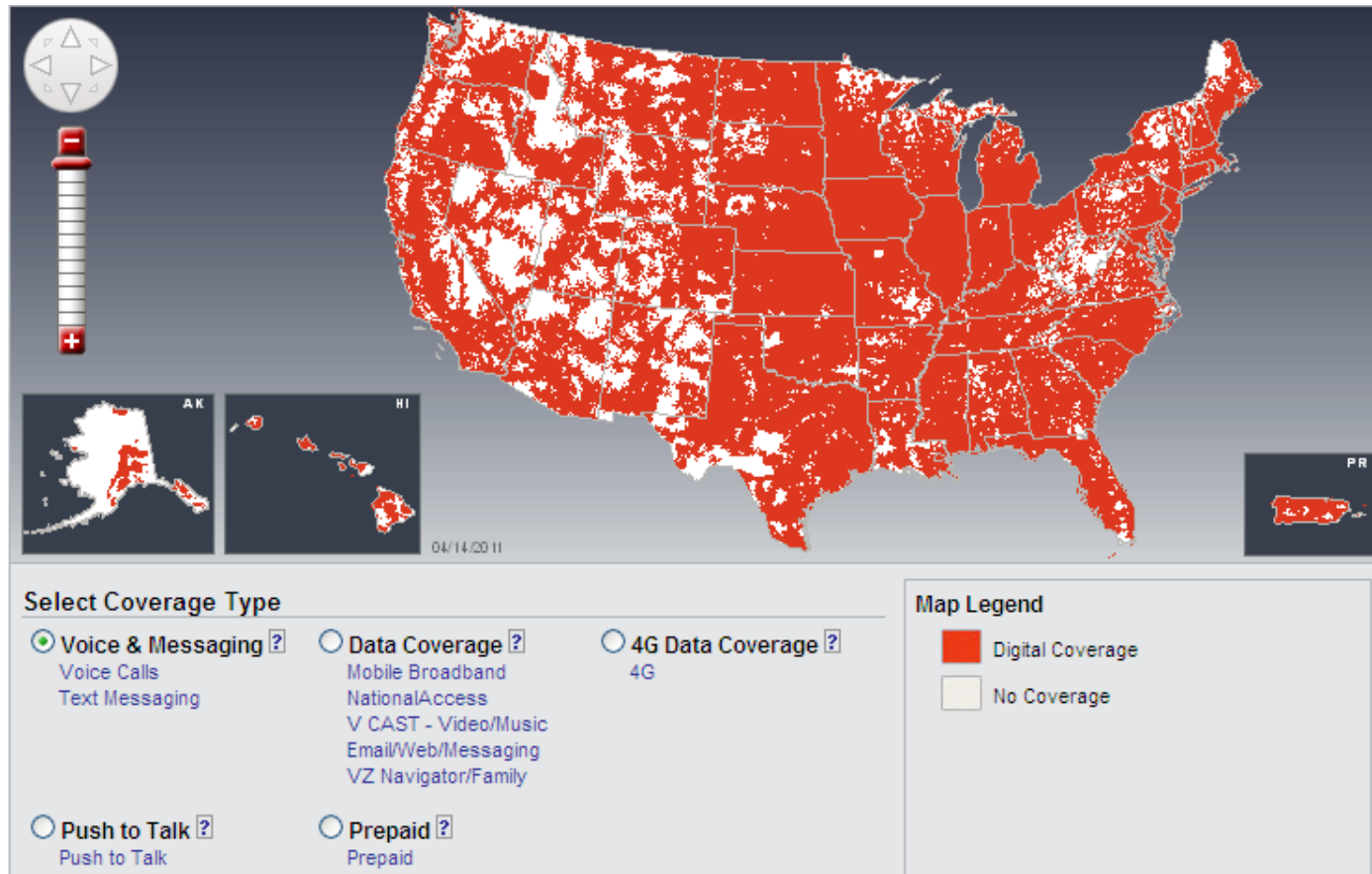
¹ AT&T, *AT&T Coverage Viewer*, <http://www.wireless.att.com/coverageviewer/#?type=voice>.

AT&T Data Coverage Map²



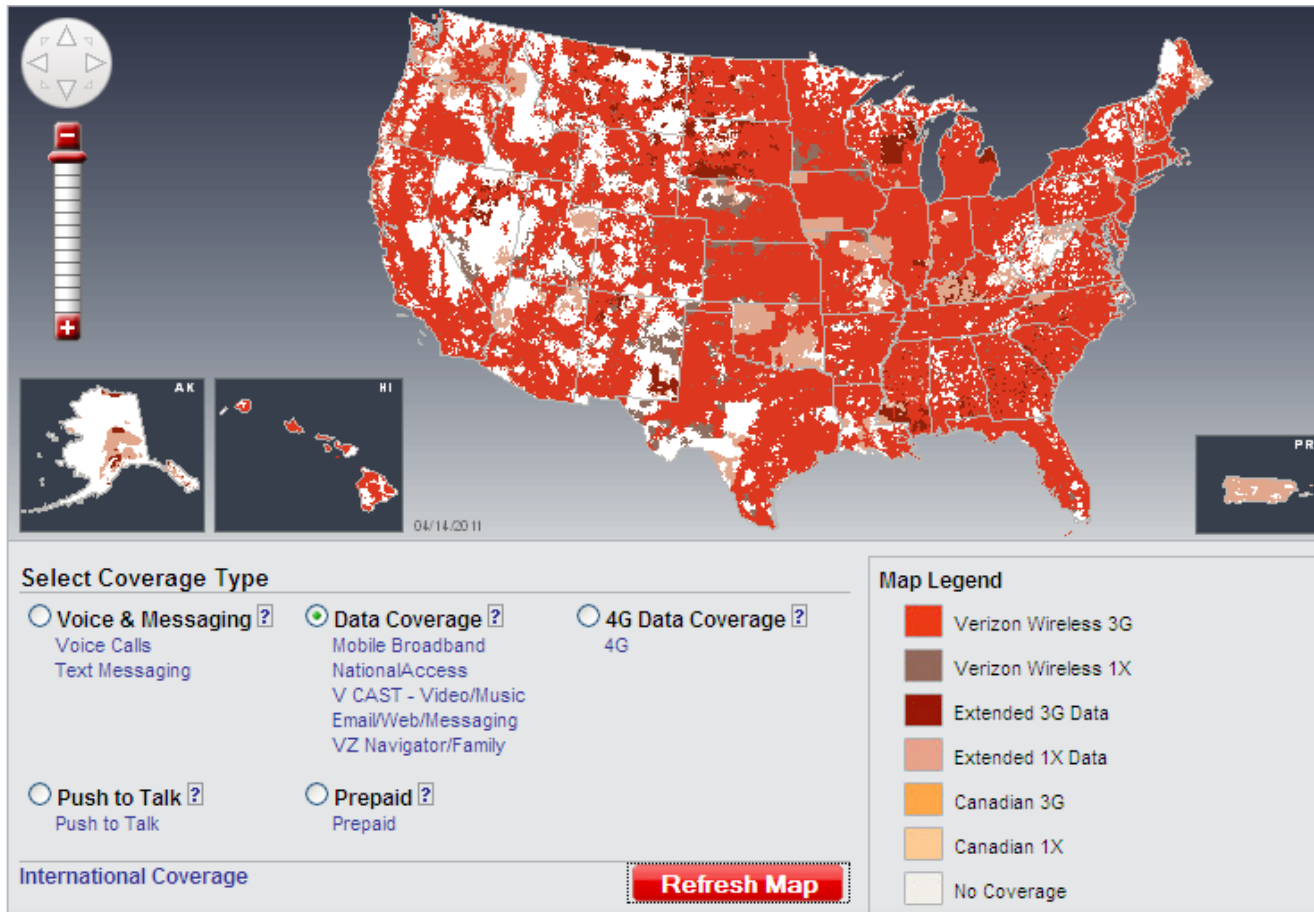
² AT&T, *AT&T Coverage Viewer*, <http://www.wireless.att.com/coverageviewer/#?type=voice>.

Verizon Voice Coverage Map³



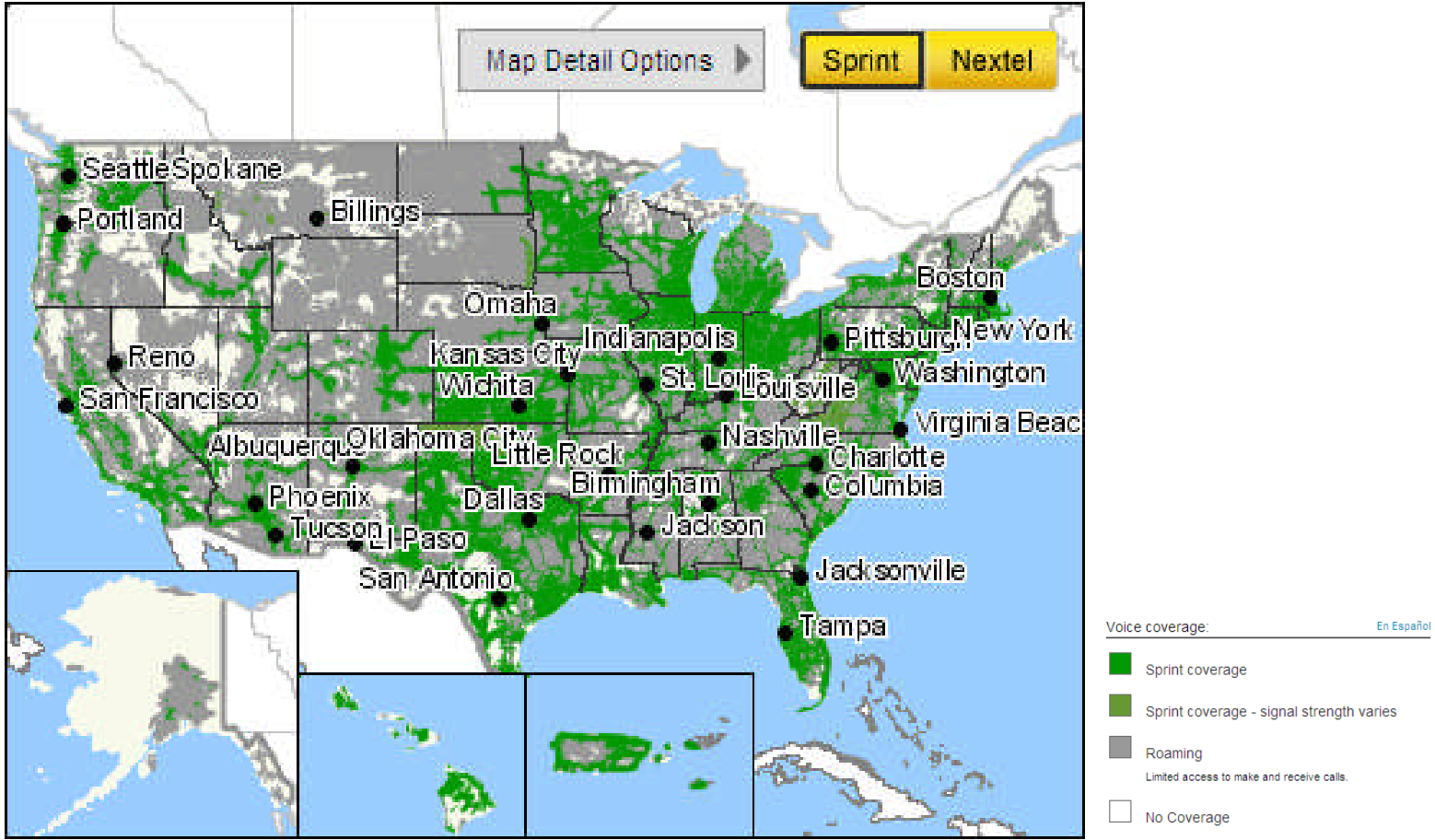
³ Verizon, *Coverage Locator*, <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST>.

Verizon Data Coverage Map⁴



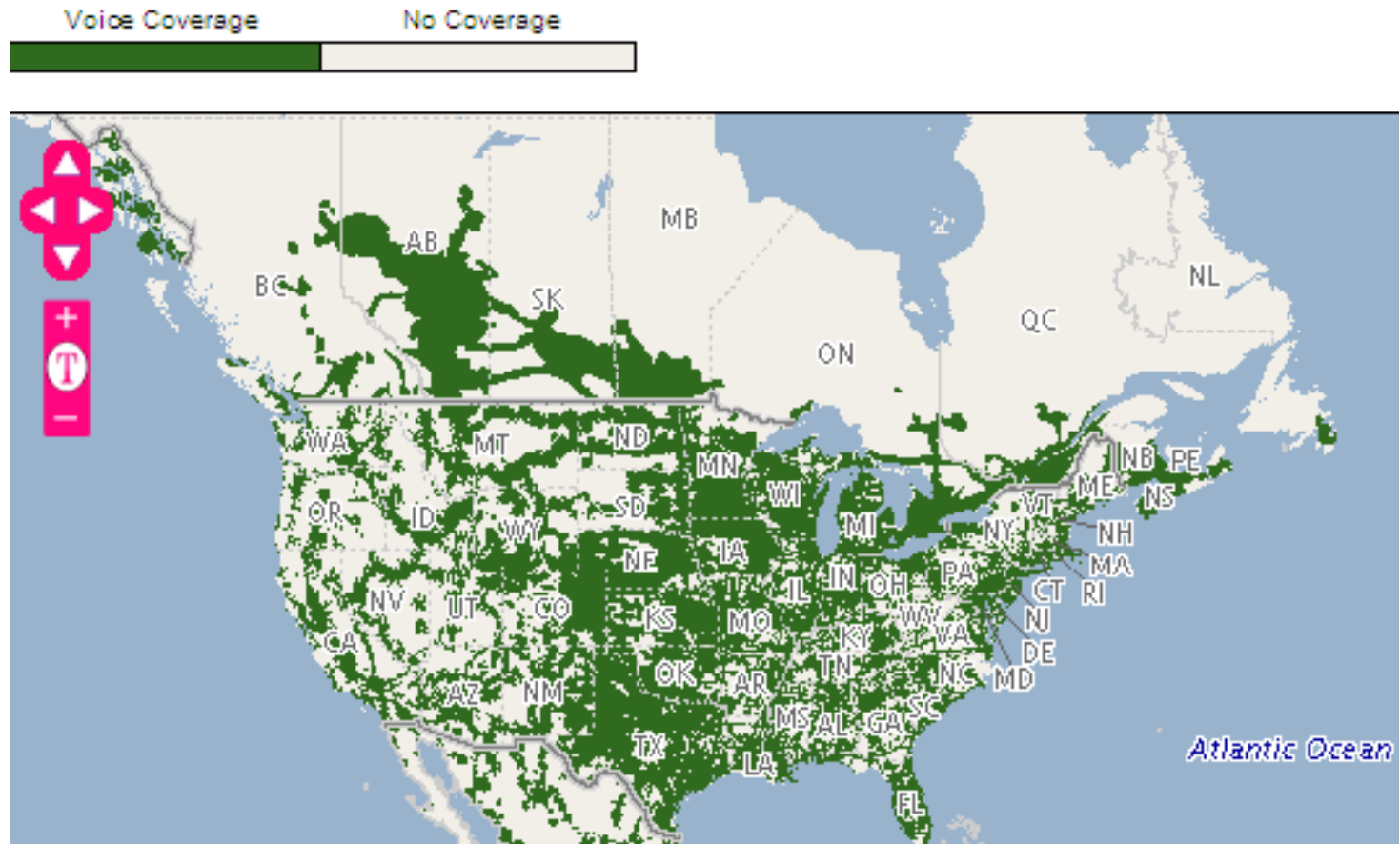
⁴ Verizon, *Coverage Locator*, <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST>.

Sprint Voice Coverage Map⁵



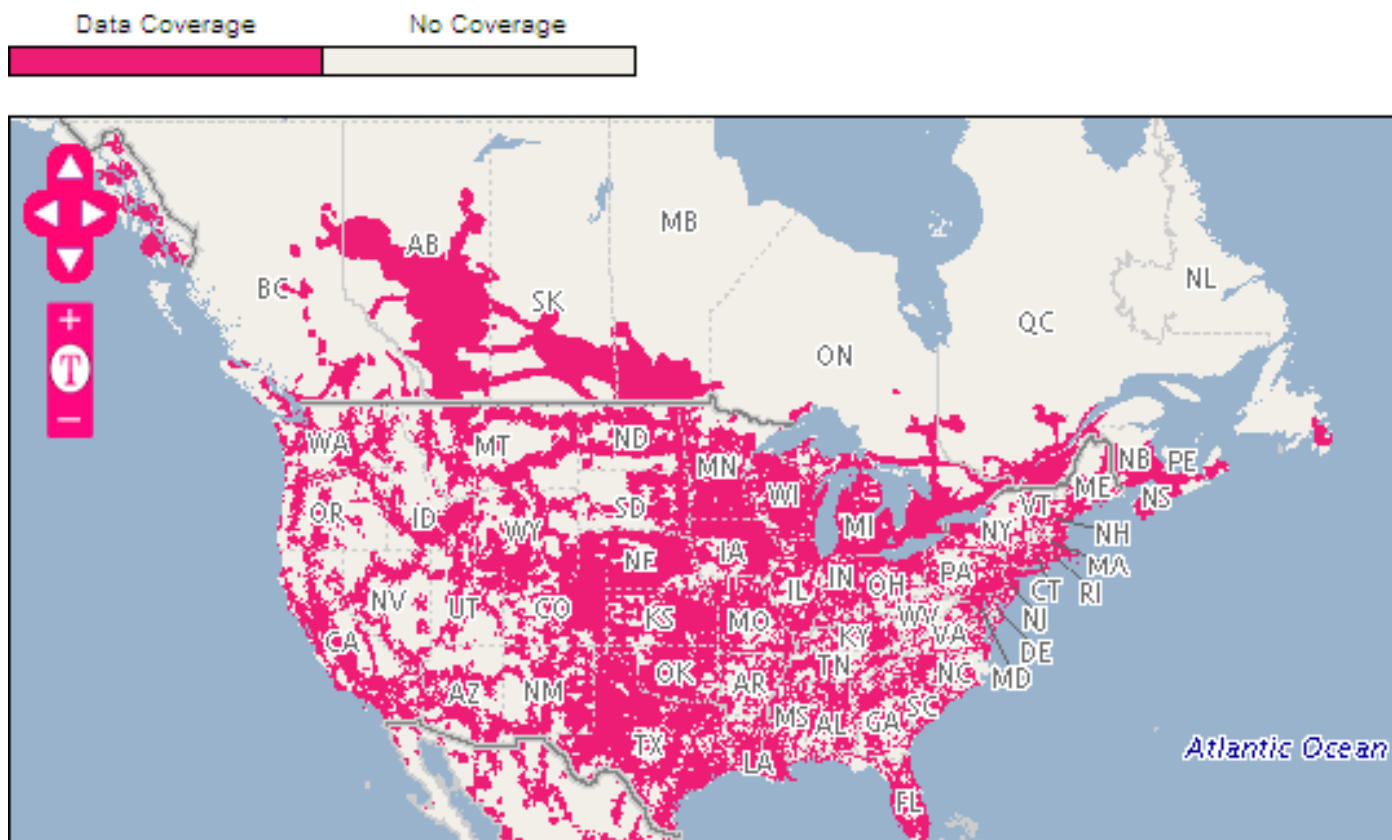
⁵ Sprint, Coverage Check, <http://coverage.sprintpcs.com/IMPACT.jsp>.

T-Mobile Voice Coverage Map⁷



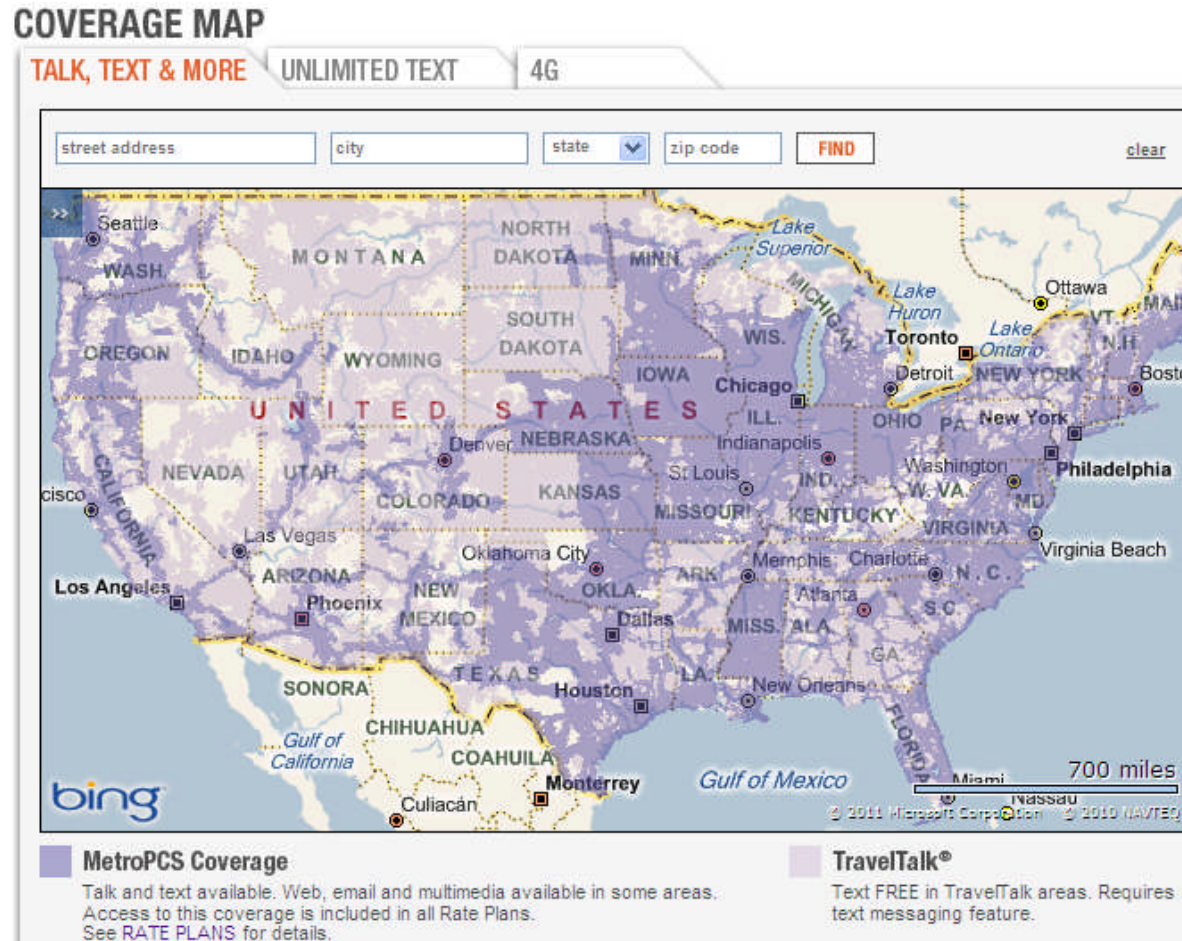
⁷ T-Mobile, *Personal Coverage Check*, <http://www.t-mobile.com/coverage/pcc.aspx>.

T-Mobile Data Coverage Map⁸



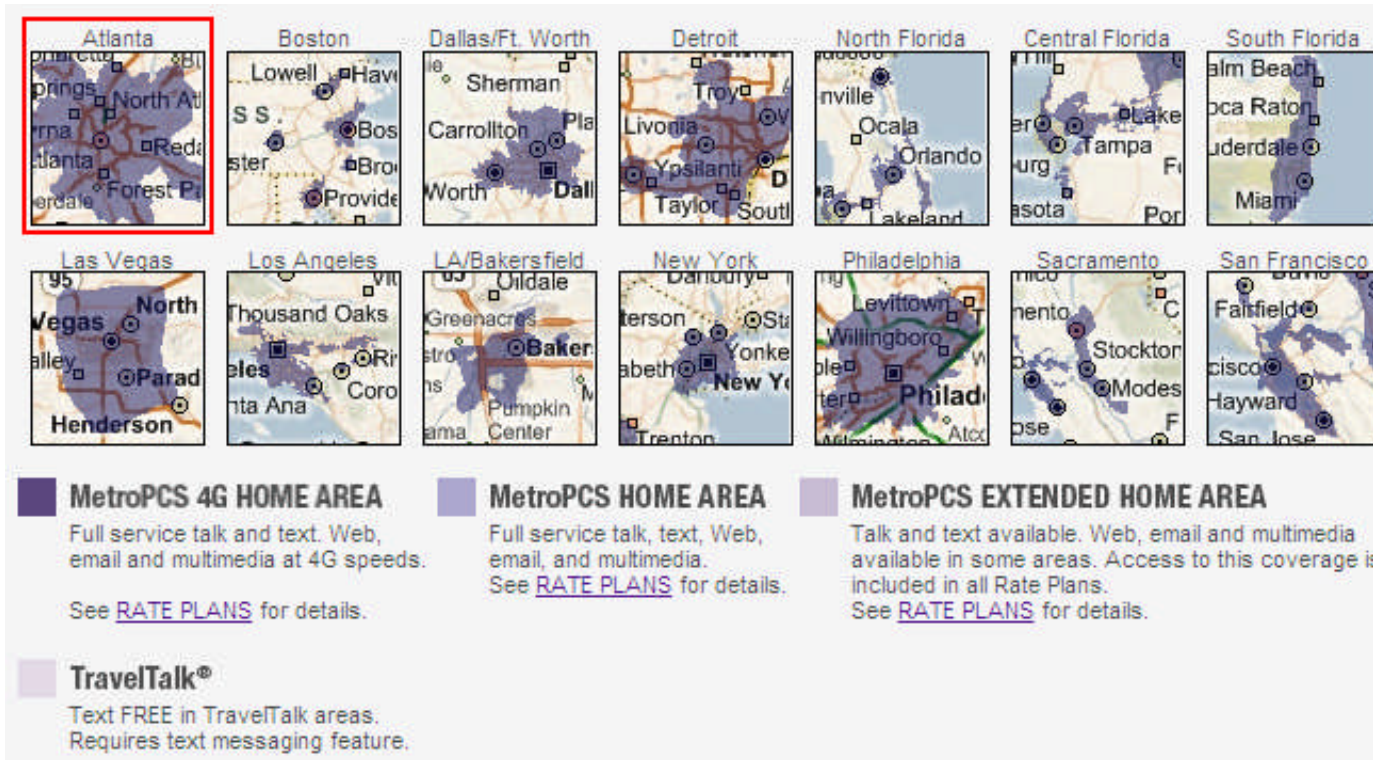
⁸ T-Mobile, *Personal Coverage Check*, <http://www.t-mobile.com/coverage/pcc.aspx>.

MetroPCS Voice Coverage Map⁹



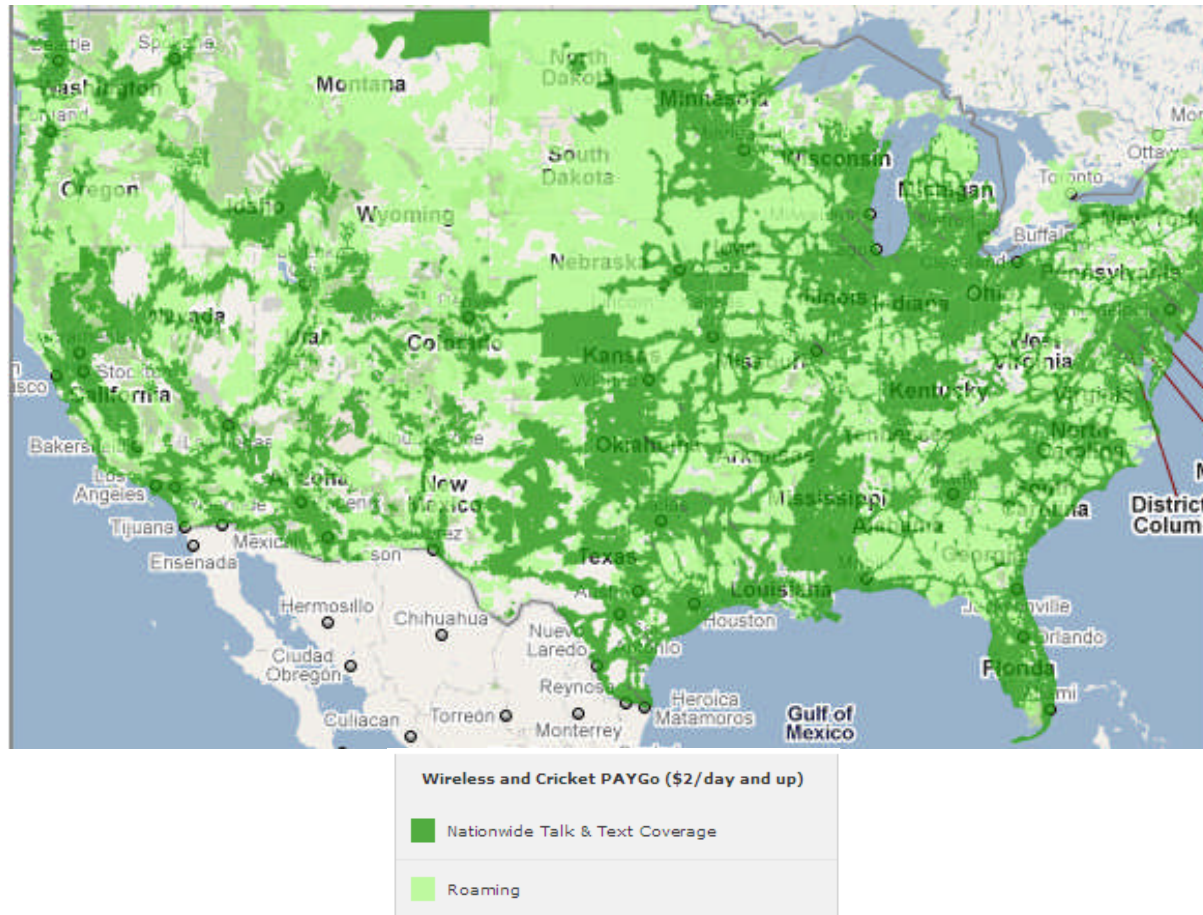
⁹ MetroPCS, *Coverage Map*, <http://www.metropcs.com/coverage>.

MetroPCS 4G Data Coverage Maps¹⁰



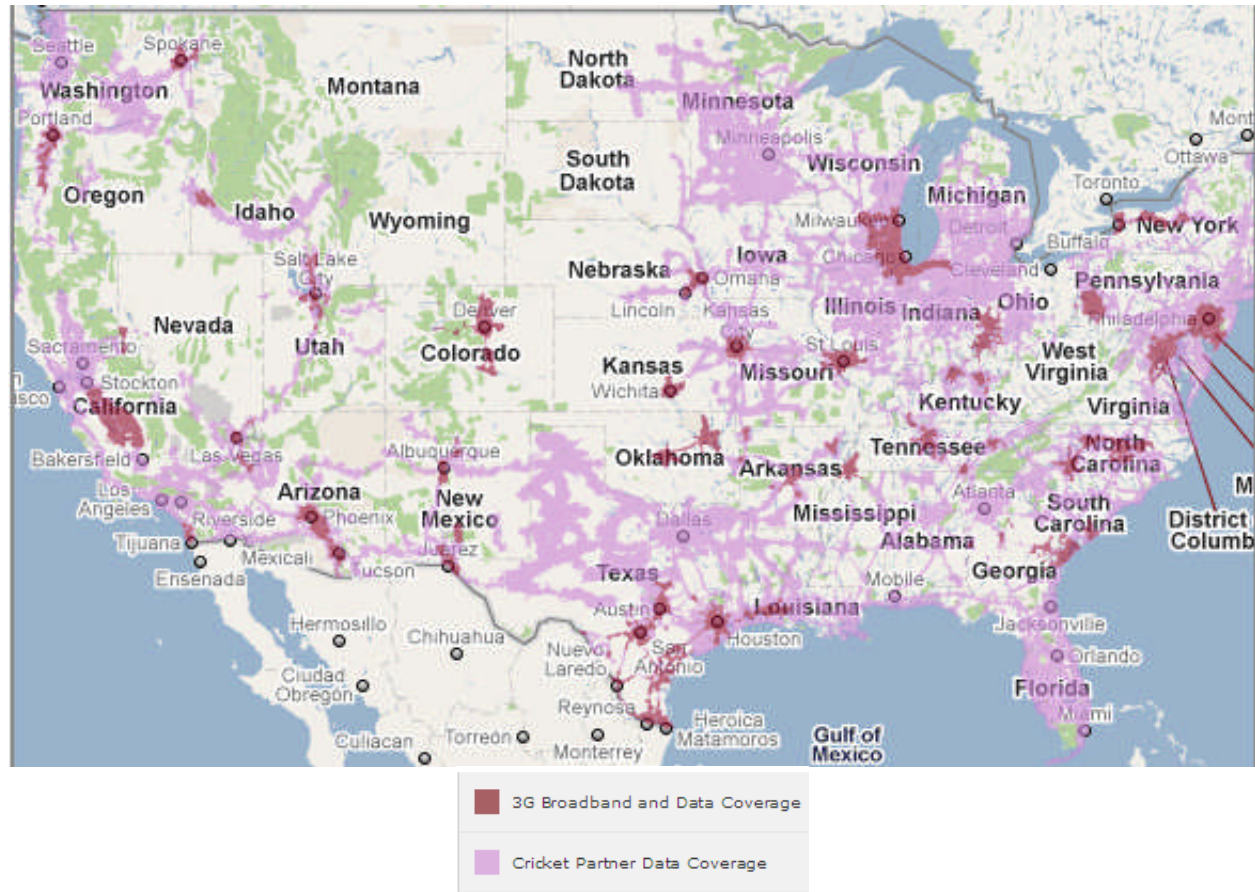
¹⁰ MetroPCS, *Coverage Map*, <http://www.metropcs.com/coverage>.

Cricket Voice Coverage Map¹¹



¹¹ Cricket, *Wireless Nationwide Coverage Maps*, <http://www.mycricket.com/coverage/maps/wireless>.

Cricket Data Coverage Map¹²



¹² Cricket, *Wireless Nationwide Coverage Maps*, <http://www.mycricket.com/coverage/maps/wireless>.

US Cellular Voice Coverage Map¹³



¹³ U.S. Cellular, *Coverage Indicator*, <http://www.uscellular.com/coverage-map/coverage-indicator.html>.

US Cellular Data Coverage Map¹⁴



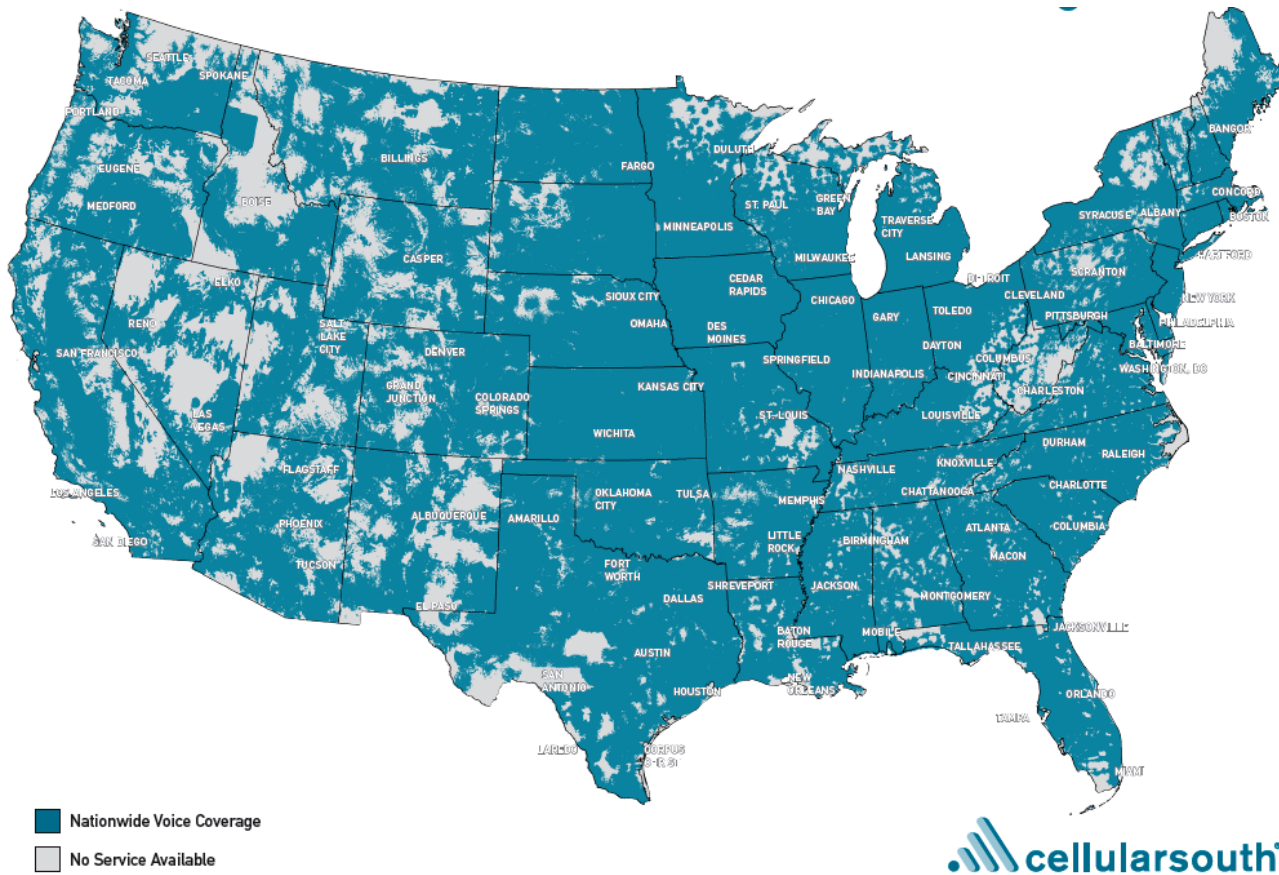
¹⁴ U.S. Cellular, *Coverage Indicator*, <http://www.uscellular.com/coverage-map/coverage-indicator.html>.

Cincinnati Bell Coverage Map¹⁵



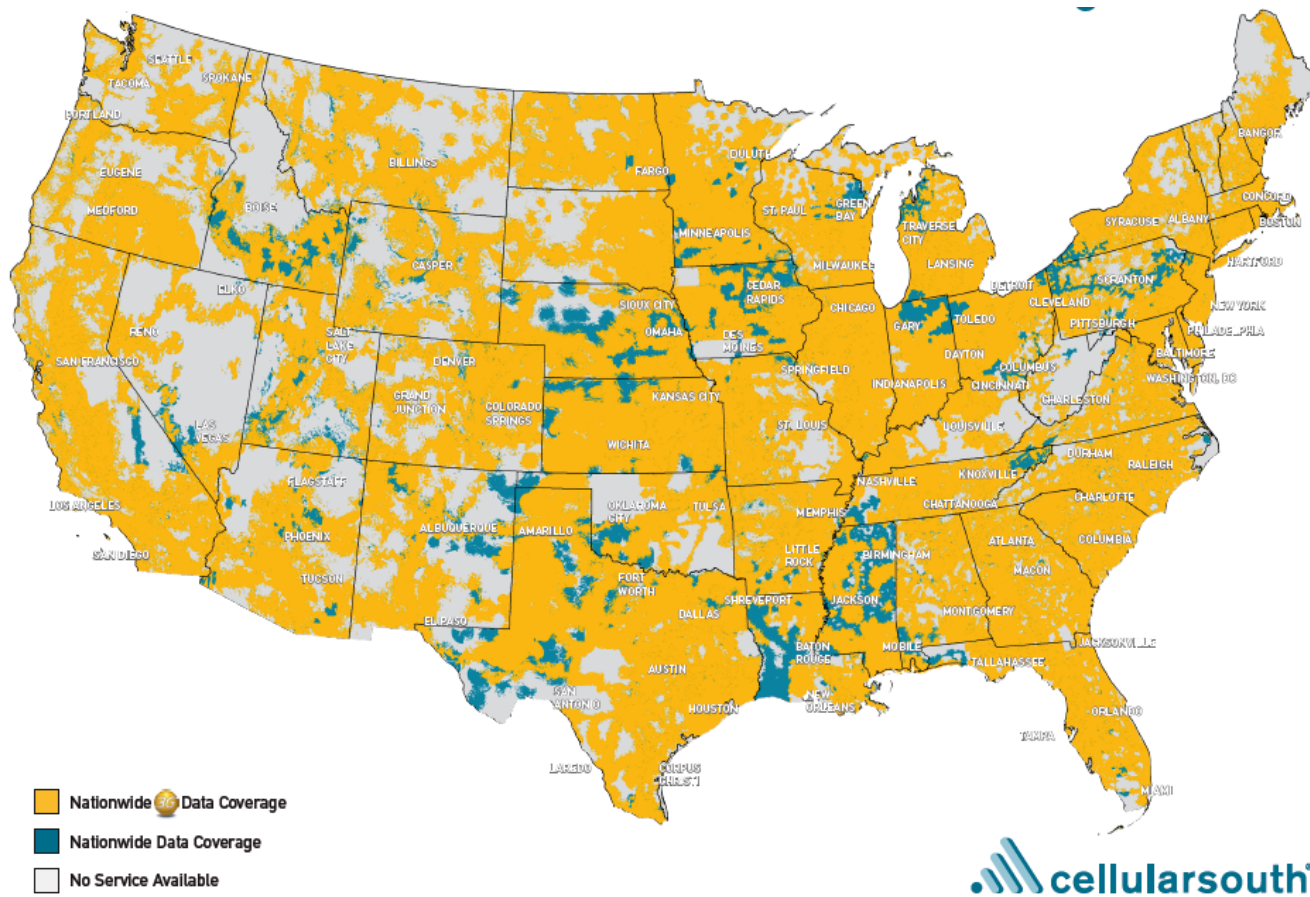
¹⁵Cincinnati Bell, *Wireless Coverage*, <http://www.cincinnati-bell.com/consumer/wireless/coverage>.

Cellular South Voice Coverage Map¹⁶



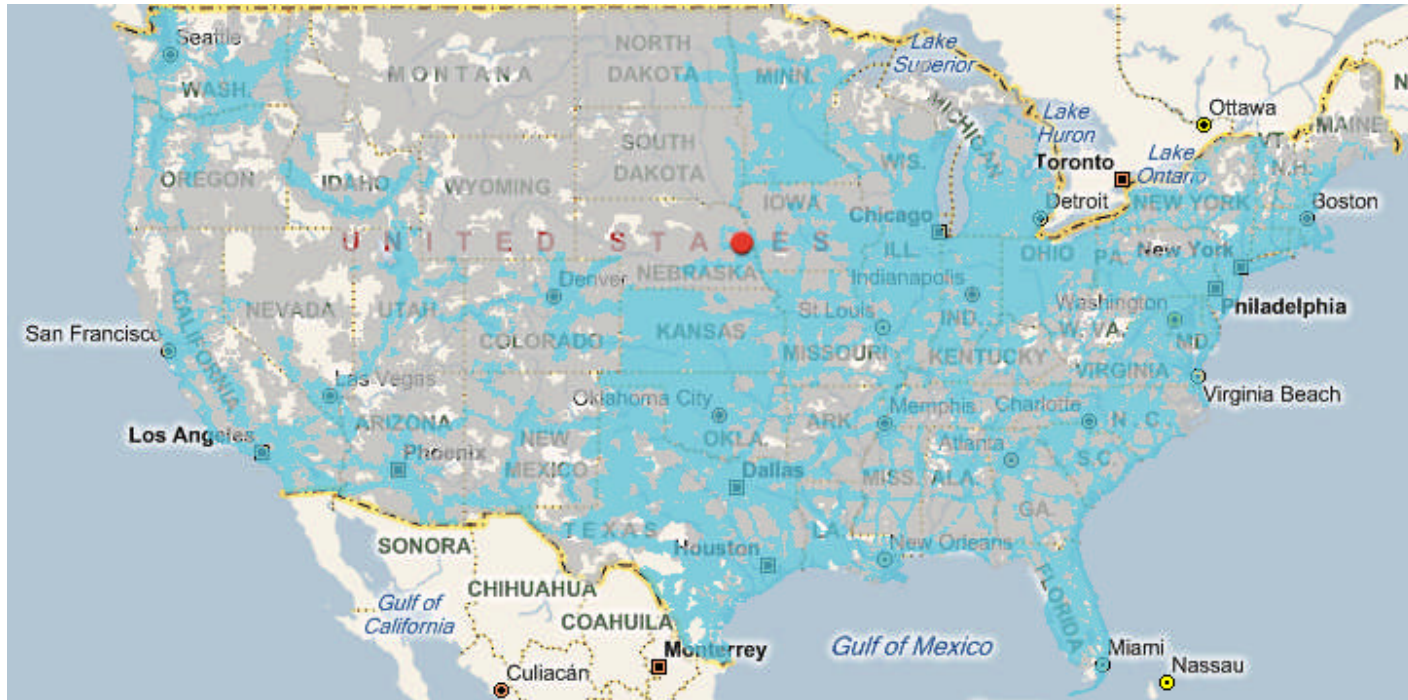
¹⁶ Cellular South, *Cellular South Nationwide Voice Coverage*, https://www.cellularsouth.com/coverage/maps/voice_coverage.pdf.

Cellular South Data Coverage Map¹⁷






¹⁷ Cellular South, *Cellular South Nationwide Data Coverage*, https://www.cellularsouth.com/coverage/maps/voice_coverage.pdf.

Cox Voice Coverage Map¹⁸

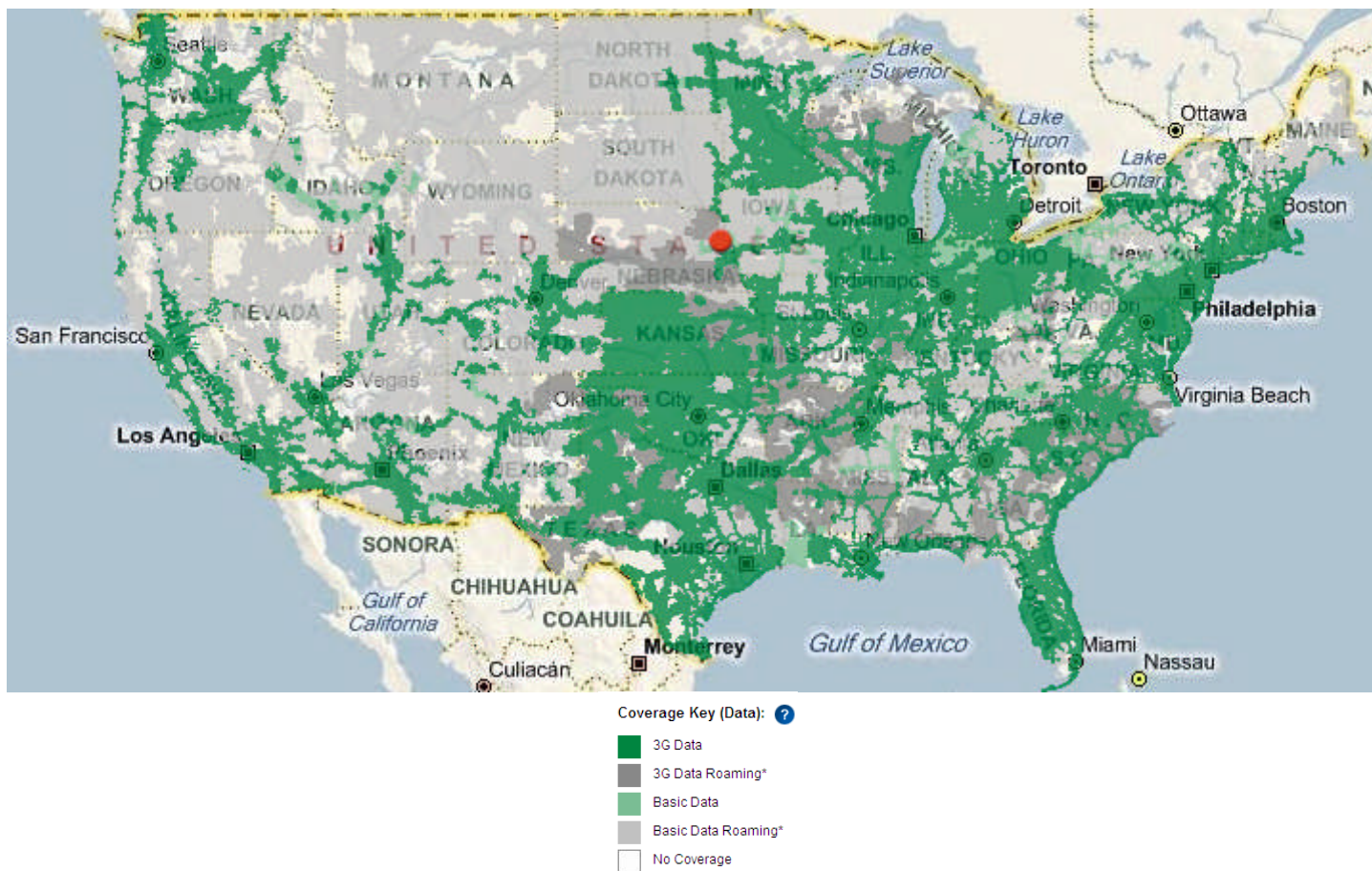


Coverage Key (Voice):

-  Voice
-  Roaming
-  No Coverage

¹⁸ Cox, *Map Search*, <http://ww2.cox.com/residential/omaha/wireless/wireless-coverage-map.cox>.

Cox Data Coverage Map¹⁹



¹⁹ Cox, *Map Search*, <http://ww2.cox.com/residential/omaha/wireless/wireless-coverage-map.cox>.

Declaration of John Donovan

**DECLARATION OF JOHN DONOVAN
CHIEF TECHNOLOGY OFFICER**

I, John Donovan, hereby declare the following:

1. I am Chief Technology Officer, AT&T Services, Inc. I am responsible for the Company's research and development activities, its product development, its network engineering and operations, its security and intellectual property organizations, and its overall road map for innovation and global technology direction. I am Chairman of the Board of the Alliance for Telecommunications Industry Solutions ("ATIS"), an industry-wide group of infrastructure and device manufacturers, carriers, and others that is committed to rapid development and promotion of open and pragmatic worldwide technical and network operations standards for information, entertainment, and communications technologies. I am a Director of, and Chair the Strategy Group for, the Wholesale Applications Community ("WAC"), a global organization that is creating a unified and open platform to allow mobile software developers to write applications that are usable across a variety of devices, operating systems, and networks. Before joining AT&T, I was executive vice president of product, sales, marketing and operations at VeriSign Inc., CEO of inCode Telecom Group, Inc., and a partner with Deloitte Consulting, where I was the Americas Industry Practice director for telecom. I have authored two books, *The Value Enterprise* (1998) and *Value Creating Growth* (1999). I hold a B.S.E.E. from the University of Notre Dame and an M.B.A. from the University of Minnesota.

2. In this declaration, I explain some of the current trends in the wireless ecosystem that led AT&T to enter into the proposed transaction with T-Mobile USA and the positive impact that the transaction will have on innovation throughout that ecosystem. As transformative as the evolution from mobile phones to mobile broadband devices has been, we are on the cusp of much more profound advances that will weave wireless communications even more tightly into

the fabric of our economy and daily lives, producing far greater benefits for consumers and the national economy as a whole. As I explain below, the network and spectrum synergies that will result from this transaction will accelerate the pace of innovation and investment, and help to bring about a future in which everything is mobilized. This transaction will promote America's leadership role in the mobile broadband revolution, as the next era of American innovation takes root and flourishes wirelessly.

I. EXECUTIVE SUMMARY.

3. Innovation has long been a defining characteristic of the U.S. wireless industry. The wireless broadband ecosystem has seen extraordinary risk-taking, investment, and innovation, even as the economy has experienced an historic downturn. These extraordinary levels of investment and innovation have paid enormous consumer dividends as better, faster, more reliable wireless networks have enabled entirely new and valuable mobile applications, devices, and services.

4. The innovation that has transformed the wireless industry is the product of a complex, interdependent cycle in which network providers in general, and AT&T in particular, play a substantial and essential role. Network advances and investment have led to innovations in devices, services, and applications that take advantage of the improved network capabilities – smartphones and mobile operating systems (from Google Android to the Apple iPhone to RIM Blackberries to Microsoft Windows Mobile 7 to HP's webOS) become more advanced each year, application stores now offer hundreds of thousands of applications, and newer services that employ streaming and social networking capabilities are growing quickly in popularity. Those innovations have in turn triggered further network investment and innovation, both to improve capabilities for the next wave of innovation and to meet rising demand for innovations that are already successful. This innovation is a collaborative endeavor among companies and industries.

Further, innovation is an increasingly important component of competition, and successful risk-taking by network operators in creating or promoting a new device, application, service, or technology spurs others at every level of the wireless ecosystem to increase their own innovation and investment.

5. AT&T plays an important role in this cycle of innovation. A central aspect of our business strategy has always been to be at the cutting edge. AT&T Labs is a world-class research institution with six labs in five states supporting 1,300 of the world's best scientists and engineers. AT&T earned more than 1,000 patents in 2010 alone, and AT&T ranked third on the Patent Board's top 50 scorecard of technology leaders in the telecom and communications industry – the only service provider in the top 10. We operate sophisticated testing and product development and engineering centers, including facilities established to promote collaboration with developers and manufacturers. And our focus on innovation has allowed us to attract a subscriber base of sophisticated customers who have proven to be among the earliest adopters and heaviest users of the latest wireless innovations. In these ways and more, AT&T promotes innovation throughout the wireless ecosystem, and our diverse innovative activities are an important link in a virtuous cycle of innovations, responses, and further innovations.

6. The next few years hold the promise of far greater wireless innovations. By combining the robust new capabilities of the latest network technologies and the highly scalable storage and processing power of the “cloud,” we will have the technology to give customers access to everything they have on their desktops at home or in the office through their mobile devices – applications, data, e-mail, video, *everything* – and to do it seamlessly.

7. The foundation of this transformation is a new set of network capabilities: (i) much faster throughput rates, (ii) much greater capacity and spectral efficiency to handle the

increased usage that will accompany expanded and improved wireless services, (iii) reduced latency to enable true real-time interactivity, and (iv) greater reliability and security to support mission-critical uses. With those capabilities – which the evolution to the Long Term Evolution (“LTE”) air interface with sufficient spectrum and other inputs can provide – we can truly “mobilize everything.”

8. Although no one can predict what new devices or applications will prove most successful, I describe below some of the key ways in which the mobile broadband experience will be enhanced. Mobile video – real-time, streaming, interactive video, from video conferencing to virtual reality gaming to home and business monitoring – will become ubiquitous. As information and computing power are transferred from user devices to the “cloud,” mobile devices will become thinner, lighter, more energy efficient, and dramatically more powerful and useful. Wireless connectivity will be embedded in hundreds of millions of consumer, commercial, and medical devices that will be monitored, instructed and reconfigured in real time. Mobile services and applications will become much more personalized to the unique needs of individual consumers and businesses.

9. As my colleague Bill Hogg explains in his declaration, AT&T’s ability to harness the full power of new network technologies is threatened by the fact that we face network capacity constraints in certain markets today, and in a growing number of areas throughout the country over the next several years.¹ Where there is insufficient spectrum and network capacity to meet increasing usage demands, service would be degraded.² There would be more dropped

¹ Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services Inc., ¶¶ 9-15, 28-64 (April 20, 2011) (“Hogg Decl.”) (attached hereto).

² *See id.* ¶¶ 36-39.

calls and connections, slower download speeds, and increased latency.³ AT&T would then be faced with a range of unattractive choices to encourage subscribers to *reduce* usage and slow demand growth, which would significantly impede AT&T's ability to deploy advanced new services and devices that would generate additional usage and further degrade network performance.

10. This is a problem that demands a fast solution. While we fully support the efforts of the FCC to make more spectrum available to the industry, we owe it to our customers to find a more immediate solution. And we have that solution: as Bill Hogg demonstrates, the combination of AT&T's and T-Mobile USA's complementary networks and spectrum will produce large capacity gains where we need them most.⁴ As I detail below, these synergies will not merely maintain, but will enhance the customer experience and pace of innovation.

11. The merger will also foster innovation and investment in other important respects. The combination of AT&T's and T-Mobile USA's networks and spectrum will enable AT&T to expand substantially the geographic area in which LTE service will be offered. With this transaction, AT&T is committed to extending LTE coverage to over 97% of the nation's population, far more than was planned or possible without the transaction. Expanding AT&T's LTE coverage will help to bring the full benefits of LTE competition and innovation to more rural areas that, in many respects, stand to benefit most from real-time access to a wide range of resources (such as world class medical and educational resources) that would not otherwise be as readily available. And by significantly expanding the addressable base of customers with LTE access, the transaction can be expected to spur and accelerate additional innovation by others to

³ *See id.*

⁴ *See id.* ¶¶ 42-64.

develop and launch devices, applications, and services that will leverage the enhanced capabilities of LTE.

II. AT&T PLAYS AN IMPORTANT ROLE IN THE VIRTUOUS CYCLE THAT DRIVES INNOVATION THROUGHOUT THE WIRELESS ECOSYSTEM, AND AT&T CAN FULLY PROMOTE FUTURE INNOVATIONS THAT PROVIDE ENORMOUS BENEFITS IF IT HAS ENOUGH NETWORK CAPACITY TO SUPPORT THOSE INNOVATIONS.

12. The wireless industry is one of the most important and innovative industries in America. Wireless consumers from even five years ago would barely recognize many of the wireless services and capabilities that we take for granted today. U.S. carriers have dramatically improved the performance and capacity of their wireless networks over the last decade, and device makers and software innovators have responded by designing an array of new mobile devices and applications that are literally changing the way Americans live and work. Today's advanced wireless networks support scores of smartphones, tablet computers, and special-purpose devices that give Americans a broad range of mobile capabilities, including, for example, Internet access, social networking, e-commerce, e-books, and hundreds of thousands of other applications of every description. Wireless connectivity is becoming central to almost every aspect of American life, and, as a result, demand for wireless services has exploded.

13. It is not surprising, therefore, that the Obama Administration has recognized that continuing the momentum of investment and innovation throughout the wireless ecosystem and ensuring that networks can continue to support these innovations is critically important to the health of the economy, job growth, and the United States' global competitiveness.⁵ As FCC

⁵ See, e.g., The White House, *President Obama Details Plan to Win the Future through Expanded Wireless Access*, (Feb. 10, 2011), <http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access>; The White House, FCC Chairman Julius Genachowski, *Remarks on Spectrum As Prepared for Delivery*

Chairman Genachowski recently said, “mobile broadband can also power innovations in areas like public safety, education, health care, and energy,” and we must “seize” the “huge” opportunities mobile communications can offer.⁶ AT&T shares these goals. Throughout its history, AT&T has been at the forefront of innovation in the telecommunications industry, and the transaction will allow AT&T to continue to maximize the contribution it makes to the pace of that innovation.

14. The process of innovation in the wireless broadband ecosystem is an intricately interdependent process among the different types of companies within the ecosystem. As network operators compete to attract customers by offering the best combinations of speed, reliability, coverage, devices, applications, prices, and packages, they are constantly innovating to improve their network platforms, which, in turn, enables the development and deployment of ever more innovative devices and applications. As customers adopt new devices and applications, demand for wireless service increases, thus spurring network operators to improve their networks even further. Improved networks spur more improved devices and applications, which in turn spur more improved networks, and so on in a “virtuous cycle” of innovation.

15. As the industry transitions to the latest generation network technologies, the wireless broadband ecosystem is poised to provide far-reaching new innovations that are likely to have even more profound effects on American life. AT&T is positioned to remain a major contributing force in driving wireless innovation forward, assuming it has the network and spectrum assets necessary to meet consumers’ soaring demand for mobile broadband.

(April 6, 2011”) (“Genachowski White House Remarks”), <http://beta.fcc.gov/document/chairman-discusses-spectrum-needs-white-house-remarks>.

⁶ Genachowski White House Remarks, at 1.

16. But virtually all of the most exciting and innovative possibilities over the near and medium term will require increased network capacity. For that reason, spectrum constraints pose a major threat to continued innovation: spectrum-driven network capacity is what gives device makers and application developers the “running room” to bring innovative new services and capabilities to wireless consumers. As Chairman Genachowski recently put it, “all this mobile innovation relies on spectrum – the airwaves.”⁷ Our merger with T-Mobile USA is about ensuring that we will have enough spectrum and other network resources to continue to play a leading role in pushing this process of innovation forward.

A. AT&T Plays An Important Role in Driving the Overall Process of Innovation Throughout the Wireless Broadband Ecosystem.

17. In addition to building and operating advanced wireless networks that enable innovation in mobile devices, applications, and services, AT&T’s contributions to the overall process of wireless innovation rest on four essential pillars: (1) AT&T Labs; (2) AT&T’s Developer Program and AT&T Foundry innovation centers that assist start-up companies and applications developers; (3) AT&T’s direct outreach to other players in the wireless ecosystem; and (4) AT&T’s crowd-sourcing program for generating ideas within the company, known as “TIP” (“The Innovation Pipeline”).

18. *AT&T Labs.* For decades, AT&T has conducted basic research that has led to profound advances. AT&T invented the first mobile phone and the first mobile network, and AT&T developed modern “cellular” technology that is the foundation of today’s mobile wireless systems.⁸ In recent years, AT&T has spent close to a *billion* dollars annually on research and

⁷ *Id.*

⁸ See AT&T, About AT&T Labs, Technology Timeline, <http://www.corp.att.com/attlabs/reputation/timeline/46mobile.html>.

development (“R&D”) and other initiatives designed to develop new wireless and wireline technologies, products, services, and applications. These initiatives include not just advances in the network technologies being rolled out today, but in the next generation of “5G” network technologies that will meet our nation’s wireless communications needs in the future. AT&T Labs also has a long history of collaboration with public and private universities and is currently sharing research and providing support under more than 80 collaboration agreements.

19. Advances in the Labs have led directly to advances in the field. Among many other things, AT&T has been a leader in the deployment of 3G networks using UMTS standards. For example, AT&T was the first carrier in the U.S. (and among the first in the world) to deploy UMTS and to upgrade its network and offer High Speed Downlink Packet Access (“HSDPA”) and High Speed Uplink Packet Access (“HSUPA”) technologies, *i.e.*, the foundation of HSPA, which made far more efficient use of spectrum than prior technologies.⁹

⁹ See, e.g., *AT&T Wireless Delivers 3G UMTS In The U.S.*, 3GNewsroom.com, July 20, 2004, http://www.3gnewsroom.com/3g_news/jul_04/news_4739.shtml (“AT&T Wireless began offering customers in Detroit, Phoenix, San Francisco and Seattle broadband mobile wireless services with its launch of the first commercially available true 3G UMTS network in the United States”); *U.S. Wireless Operator First in the World with UMTS/HSDPA Mobile Wireless Broadband in Wide-Scale Commercial Service*, 4G Americas, Dec. 6, 2005, <http://www.4gamericas.org/index.cfm?fuseaction=pressreleasedisplay&pressreleaseid=110>; *HSDPA Provides the Grand Slam in Wireless Mobility - 3G Americas White Paper Showcases UMTS/HSDPA Versus Alternative Mobile Technologies*, 4G Americas, Sep. 13, 2005, <http://www.4gamericas.org/index.cfm?fuseaction=pressreleasedisplay&pressreleaseid=106> (“Led by Cingular Wireless in the U.S., operators worldwide are about to start deploying High Speed Downlink Packet Access (HSDPA), one of the most powerful cellular-data technologies ever developed”); *Cingular Launches HSDPA 3G Network*, MobileMedia, Dec. 6, 2005, <http://www.mobiledia.com/news/40934.html> (“Cingular’s 3G network is the first widely available service in the world to use HSDPA”); *AT&T’s HSUPA Launches With Sierra Data Card*, Fierce Wireless, Oct. 19, 2007, <http://www.fiercewireless.com/press-releases/t-launches-hsupa-network-sierra-aircard-881> (“AT&T commences the industry’s first U.S. deployment of High Speed Uplink Packet Access”).

20. AT&T also works directly with device makers to optimize the performance of their devices on our network. To take just one example, in preparation for the release of Apple's iPhone, AT&T invested thousands of hours working with Apple on myriad critical issues such as fine-tuning the RF signals used by the handset to maximize performance and battery life, and AT&T made substantial investments to enable innovative features of the iPhone, such as its "visual voicemail" feature.

21. *Developer Program.* AT&T provides extensive resources and support for wireless applications developers. The AT&T "Developer" tool makes AT&T's Universal Design guidelines available to developers to help them design applications that can be sold either through the AT&T AppCenter or elsewhere. More than 30,000 developers are registered in the AT&T Developer Program (which was introduced in 2002 and was the first program of its kind by a major carrier). The AT&T Developer Program has ranked highest among U.S. wireless carriers for five straight years according to a survey of developers by Evans Data Corporation.¹⁰

22. The AT&T Apps Beta Program allows developers to test applications with customers and receive customer feedback during the development process. The Apps Beta program thus provides a double consumer benefit: consumers are able to gain access to new applications more quickly than would otherwise be the case, and they have the opportunity to become involved in the development process itself, ensuring that the ultimate product is better.

23. *Innovation Centers.* Last year, AT&T opened AT&T Innovation Centers (now called "Foundry" centers) in Texas, California, and Israel. The Innovation Centers provide start-up companies and developers with access to AT&T's network capabilities and test beds, in

¹⁰ See, e.g., *AT&T Developer Program Ranked Best Among All U.S. Carriers for Fifth Consecutive Year*, Wall Street Journal, Feb. 2, 2011, available at <http://online.wsj.com/article/PR-CO-20110202-907211.html>.

addition to technology experts and project coaches. The Foundry centers in Texas and California have fully operational LTE wireless network test beds that developers can use to test, modify and further develop their services and applications. The Foundry centers represent a \$70 million investment that is designed to foster collaboration in ways that take products from idea to market up to three times faster.

24. *Direct Outreach.* AT&T executives plan to evaluate as many as 400 projects this year through “speed-dating” sessions with start-up companies and developers, to make new products and capabilities throughout the wireless ecosystem commercially viable. Compelling ideas of immediate interest are launched as projects in the AT&T Foundry innovation centers, where dozens of projects are now under way. A project that has been accepted is put on the “fast track” and runs in “sprints” (30 and 90 day periods in which specified goals are met). Using this approach, projects can move from speed-date to beta in months, and when promising projects are identified, AT&T may supply funding and many other resources.

25. AT&T has established an entire “Emerging Devices Organization” to help companies design machine-to-machine and other innovative devices and bring them to market. This organization provides device innovators with a single point of contact to obtain the information and support that is needed for every stage of execution, from product development to deployment to billing to ongoing customer support. AT&T has also made substantial investments to reduce or eliminate some of the most difficult technical issues that arise when designing a new device; for example, AT&T has worked with several vendors to establish pre-approved “radio modules” that will manage communication with AT&T’s network. AT&T operates a dedicated emerging device certification lab in Austin, Texas, where we conduct thorough lab, field, reliability, and network protection tests.

26. AT&T's emerging devices organization has been immensely successful – AT&T has certified more than 995 devices for use on its network. These devices are used in a wide range of industries, including consumer products (*e.g.*, e-readers, GPS devices, music/video players, home automation), automotive products (*e.g.*, in-car diagnostics, repair assistance, pay-as-you-go insurance), industrial automation (*e.g.*, remote monitoring of manufacturing equipment, environmental monitoring), payments and point of sale (*e.g.*, remote monitoring of cash registers and vending machines), utilities (*e.g.*, remote metering, measuring of pollution and weather), transportation logistics (*e.g.*, tracking automotive fleets and containers, locating stolen assets), security (*e.g.*, active alarm monitoring, backup to wireline connections), healthcare (*e.g.*, advanced diagnostics and tracking of hospital personnel and equipment), and emergency services (*e.g.*, in-car emergency notification systems when an accident occurs and devices designed to predict potential falls in elderly patients).¹¹

27. *TIP Program.* AT&T has also implemented “The Innovation Pipeline,” known as the “TIP” program, aimed at liberating good ideas and increasing the velocity of innovation by tapping all of the expertise and creative thinking within AT&T. With more than 80,000 AT&T employees signed up as members and more than 12,000 ideas generated resulting in a number of patent applications, we believe TIP to be one of the most dynamic corporate crowd-sourcing sites. TIP promotes cross-functional collaboration among people from many different parts of AT&T. For example, the AT&T R&D team developed a platform called “Geocast,” which has the potential to improve first responders’ ability to deal with natural disasters and other

¹¹ According to a Cisco study, there will be over 7.1 billion mobile-connected devices, including machine-to-machine (M2M) modules in use worldwide in 2015. *See* Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010-2015 at 8-9, Feb. 2011, (“Cisco Report”), http://newsroom.cisco.com/dlls/ekits/Cisco_VNI_Global_Mobile_Data_Traffic_Forecast_2010_2015.pdf.

catastrophes, which the team submitted to the TIP community, connecting with other employees who had new insights into the market for the Geocast technology. As a result, AT&T is now examining a variety of additional go-to-market possibilities for Geocast. We look forward to expanding the TIP community to include T-Mobile USA's employees.

B. This Virtuous Cycle, If Allowed to Continue Unimpeded, Will Provide Unprecedented New Benefits for Americans; AT&T Can Play A Major Role.

28. Although this virtuous cycle of wireless innovation has already brought extensive new benefits to Americans, the changes that have occurred are really just the beginning. If the cycle of innovation is allowed to proceed unimpeded, the wireless industry is on the verge of innovations that are likely to prove far more profound. Although it is always difficult to predict the exact form that future innovations will take, we can identify some clear trends based on the innovation initiatives that AT&T and others are pursuing – innovations that can mobilize everything. One thing is clear: these innovative services and capabilities will place heavy demands on the network that must be met if the innovation cycle is to continue at full steam. Below, I discuss some of the most important innovation trends in more detail.

29. *LTE*. Over the next few years, most of AT&T's wireless consumers will continue to use data services on AT&T's existing networks, but AT&T is in the process of deploying a next-generation LTE network. LTE networks can support a broad range of new devices, applications, and services, and thus will spur significant new innovation. Most people know that LTE will be able to support much faster data transfer speeds, which will drive innovation by enabling services that need higher throughput rates. But LTE's less recognized improvements will also drive significant advances. Reduced latency means that LTE networks will experience far less delay from data transmission to receipt. These improvements can make an enormous difference for – and will lead to the proliferation of – real-time interactive mobile services. Such

capabilities will support dramatic advances in many areas, including remote education and telemedicine. The improved reliability and more robust and flexible security permitted by LTE networks will likewise open new doors to even more innovative uses of wireless networks.

30. *Cloud Computing.* The most fundamentally transformative change on the horizon may be the integration of cloud computing with advanced wireless networks. Cloud computing – especially when coupled with common platforms and application programming interfaces (“APIs”) and devices with interfaces adapted to this environment – will be far more “game changing” than most people realize.

31. Cloud computing refers to the use of remote devices and applications that transmit data to and receive data from processors and databases in the network that have vast computing and storage resources. Cloud computing is transformative because it creates a shared infrastructure that transfers most of the intelligence to the network. As wireless connectivity effectively becomes ubiquitous, cloud computing can allow the individual mobile devices to become much thinner, simpler, and able to support longer battery life. The processing power can reside in the cloud, can be orders of magnitude greater than could ever be achieved on a portable device, and can be delivered wirelessly over the network. Storage of applications and data can also be in the cloud, and since cloud storage is highly scalable, devices will not need large storage capacities.

32. Cloud computing also has dramatic implications for machine-to-machine devices. Almost every major electronic device, vehicle, building component, and piece of equipment has the ability to become “smart” by connecting sensors to it. Connecting such special-purpose wireless devices to cloud computing would allow those devices to be monitored (potentially with real-time video), controlled and coordinated and modified remotely from within the cloud, using

powerful processors and taking advantage of vast data storage capabilities. The possibilities are endless and have potentially far-reaching implications for managing health care, “smart” vehicles and transportation, public safety and national security, and much else. To reach its full wireless potential, however, cloud computing will require reliable, high-speed connectivity.

33. *HTML5*. The transition to the next generation programming language for Internet sites and Internet-based applications – HTML5¹² – will further improve and expand the potential capabilities of mobile devices, driving even more innovation and traffic in the wireless ecosystem. HTML5 natively supports robust video, music, databases, geolocation, and other services that permit developers efficiently to create full-featured applications. Because these are *web*-based applications, they are not dependent on the particular device or operating system used to run them; any device with an HTML5-compatible browser, which includes virtually all mainstream browsers, can access the applications. This platform independence allows developers much more efficiently to develop mobile applications that can be operated across different devices, networks, and operating systems, and gives them “the freedom to create rich, dynamic and interactive experiences for any platform with any web browser.”¹³

34. AT&T has undertaken initiatives to help developers quickly transition to HTML5. By the second half of 2011, AT&T expects the majority of its new smartphones and a number of quick messaging phones to support the current HTML5 standards. AT&T is working proactively with its device partners to provide a developer-friendly HTML5 environment. AT&T is also extending these HTML5 adoption efforts to ensure that they are compliant with the global Wholesale Application Community specifications (specifically with the WAC’s 2.0

¹² “HTML” stands for Hypertext Markup Language.

¹³ *Netflix Sheds Light on Benefits of HTML5 for Apps*, Digital Trends, Dec. 7, 2010, <http://www.digitaltrends.com/mobile/netflix-sheds-light-on-benefits-of-html5-for-apps>.

specifications) to facilitate, for example, the ability of applications developers to receive payment for their applications through a wide range of applications stores. And AT&T recently partnered with other innovators through the AT&T Foundry to launch a new beta “app store” for HTML5 applications. Once developers marry HTML5 with cloud computing, innovation in applications will take off to another level, because developers will be able to write a single, powerful application that can be accessed from any device running any operating system on any network.

35. *Transforming Existing Services.* Even in the immediate and near term, the latest network technologies have created new possibilities for, and spurred explosive growth in, many familiar services. Cisco estimates that video will represent more than half of all data traffic worldwide in 2011 and two thirds in 2015.¹⁴ Network technology advances make possible many exciting new video applications from HD video monitoring of homes and commercial facilities to large screen (tablet and laptop) video teleconferencing.

36. Social networking services are also introducing more real-time features, and such services – including Facebook, Twitter, FourSquare (location sharing), and Pandora (music) – have dramatically accelerated mobile usage.¹⁵ From 3Q 2009 to 3Q 2010, Facebook’s mobile active users grew from 50 million to 200 million,¹⁶ and Facebook’s mobile users are twice as active as desktop-only users.¹⁷ In fact, analysts now estimate that wireless consumers spend 60 percent of their time on mobile devices on “new” activities, such as social networking, web

¹⁴ See Cisco Report, at 8-9.

¹⁵ Matt Murphy & Mary Meeker, *Top Mobile Internet Trends*, KPCB, at 15, Feb. 10, 2011 (“KPCB Report”), available at http://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en/us/events/thinkmobile2011/pdfs/10-mobile-trends.pdf.

¹⁶ *Id.* at 21.

¹⁷ *Id.*

browsing, gaming, and maps, rather than on telephony uses (including phone calls, text messaging, and email).¹⁸ The use of mobile devices for online commerce is also expected to grow rapidly over the next few years,¹⁹ especially as the introduction of innovative new capabilities like Near Field Communications (NFC) will allow the mobile device itself to act as a payment card, boarding pass, or any number of other possibilities.

37. Enhanced wireless network capabilities have also attracted completely new competitors, such as Apple and Google, to the wireless marketplace, intensifying competition and innovation still further, as illustrated by the rapid ascent of Google's Android operating system. Android's success reflects both the innovative nature of the operating system itself and Google's parallel development of the Android Market, but Android's growth is also the result of a fierce rivalry among wireless service providers that have added a host of Android-based handsets to their device portfolios and aggressively marketed those devices to consumers. AT&T alone plans to launch twelve new Android devices in 2011.²⁰

38. *Rural Areas.* New network technologies will particularly benefit rural areas. As network technologies such as LTE increasingly offer much greater broadband capabilities, and as computing becomes increasingly mobile, these technologies offer the promise of dramatically narrowing the "digital divide." The possible benefits are quite significant: as just one example, these technologies could eliminate long drives to doctors' offices by substituting the use of video conferencing and telehealth monitoring.

¹⁸ *Id.* at 19.

¹⁹ *Id.* at 33.

²⁰ AT&T News Release, *AT&T Announces Plans to Deliver Nation's Most Advanced Mobile Broadband Experience*, Jan. 5, 2011, <http://www.att.com/gen/press-room?pid=18885&cdvn=news&newsarticleid=31477&mapcode=wireless-networks-general|consumer>.

39. In short, as one U.S. venture capitalist recently said of the wireless ecosystem, we are in the “early innings of a massive phenomenon.”²¹ With this transaction, AT&T is expecting to help lead this transformation.

III. THE PROPOSED TRANSACTION INCREASES THE ABILITY OF AT&T AND OTHERS TO INNOVATE AND TO DEVELOP AND DEPLOY NEW, ADVANCED MOBILE BROADBAND PRODUCTS AND SERVICES.

40. AT&T’s goal is to bring the innovation benefits described above to customers as quickly as reasonably possible. But the cycle of innovation that is providing so many consumer benefits throughout the wireless ecosystem depends on the availability of spectrum and network resources to support the introduction of these new services and to handle the resulting traffic.

41. The popularity of smartphones and other data-centric devices has generated an enormous amount of traffic on AT&T’s network. From 2007 through 2010, AT&T experienced an *8,000 percent* increase in mobile broadband use on its network. In February 2011, AT&T carried more than 1 billion “API calls” – *i.e.*, communications from within an application to either another application or a database (such as an app seeking location information). These upward trends are expected to continue for the foreseeable future.

42. As my colleague Bill Hogg explains in his declaration, AT&T faces severe spectrum and network capacity constraints in certain markets today and projects that the occurrence of such constraints will increase and expand to many other areas throughout the country over the next several years.²² These constraints jeopardize AT&T’s ability to continue to play its role in the cycle of innovation. The proposed combination of the highly

²¹ KPCB Report, at 53, 54.

²² Hogg Decl. ¶¶ 28-41.

complementary spectrum and networks of AT&T and T-Mobile USA will directly address that issue and thus ensure that AT&T can maximize its own contribution to that virtuous cycle.²³

43. First, by addressing AT&T's capacity constraints – and avoiding degradation in network performance – the transaction will enhance the incentives of AT&T and other innovators to develop and deploy advanced services in the years immediately ahead. Second, the transaction will also increase innovation in the longer term by broadening and deepening AT&T's LTE network, and thereby enhancing the ability of AT&T and other innovators to develop advanced services and devices for the LTE network. And, by significantly increasing the addressable rural customer base for LTE services, the transaction will attract even more capital, expertise, and other resources to the development and deployment of LTE services that will transform the wireless experience, including in areas that might not otherwise have wireless broadband alternatives.

A. The Transaction Increases the Near-to-Medium Term Incentive and Ability to Develop and Deliver Innovative Broadband Mobile Products and Services, by AT&T and Others.

44. Capacity constraints degrade service quality through an increased number of dropped calls or connections, slower throughput speeds, and increased latency. If faced with a scenario in which it is unable to meet customer demand from existing service offerings at target performance levels, AT&T's incentives to invest in and promote innovative new capabilities, devices, applications, and services that would only exacerbate those performance issues would be severely dampened. In fact, capacity constraints, by reducing the level of services that AT&T could support and hence the expected returns to innovation, could negatively impact innovation by AT&T and others that would offer products or services using AT&T's network.

²³ See also *id.* ¶¶ 42-64.

45. Most immediately, capacity constraints would reduce AT&T's own ability to develop and deploy innovative services. Many innovative services require significant spectrum capacity and have high performance requirements. If capacity constraints prevent the provision of those innovative services or make those services less attractive to consumers, then AT&T would have diminished incentives to invest in or pursue that innovation. In this regard, research confirms the correlation between network performance and consumer satisfaction and adoption of advanced services, applications, and devices.²⁴

46. In fact, introducing new, innovative services under such circumstances would even degrade service quality for *existing* services. The new services, by adding demand to networks that are already performance challenged, could degrade service for all customers and thus cause more dropped calls, greater delays accessing the network, and increased latency and lower throughput in service use. Those service impairments, in turn, would have very real and adverse economic effects. Any development and deployment of new services would thus have to take account of the impact on existing services, further increasing incentives to shift resources away from innovative – but capacity-consuming – mobile broadband innovations.

47. For the same reasons, absent the transaction, AT&T would have reduced incentives to devote scarce resources to app developer and device maker collaborations and support designed to accelerate the introduction of innovative – but capacity consuming – new devices, applications and services. As described above, AT&T spends considerable time and

²⁴ See, e.g., *Mobile 2010, Year In Review*, comScore, at 9, Feb. 2011, available at <http://www.tendencias21.net/attachment/256788> (“The top consideration for device purchases was network quality”); Norazah Mohd Suki, *Subscribers’ Intention Towards Using 3G Mobile Services*, *Journal of Economics and Behavioral Studies*, Vol. 2, No. 2, at 68, Feb. 2011, available at [http://www.ifrnd.org/JEBS/2%20\(2\)%20Feb%202011/Subscribers%E2%80%99%20intention_towards%20using%203G%20mobile%20services.pdf](http://www.ifrnd.org/JEBS/2%20(2)%20Feb%202011/Subscribers%E2%80%99%20intention_towards%20using%203G%20mobile%20services.pdf) (“Performance Expectancy has positive influence towards Behavioral Intention and Use behavior”).

money collaborating with other actors throughout the wireless ecosystem, including device manufacturers, application developers, and cloud computing partners to develop innovative products and services. It would be difficult to justify continuing that investment at existing levels if the upshot was accelerated introduction of innovations that would further degrade already performance-challenged networks.

48. More broadly, capacity constraints create disincentives for innovation throughout the ecosystem. If AT&T's networks were allowed to become capacity constrained and performance challenged – with lower throughput speeds, increased latency and more blocked and dropped calls and data connections – AT&T customers would find applications and devices that need better network performance less attractive. As noted, customer satisfaction and adoption of innovative new devices, applications and services is correlated with network performance, and the expected returns to innovators throughout the wireless ecosystem would thus be negatively impacted if AT&T's network performance were substantially degraded (or failed to continue to improve).

49. The combination with T-Mobile USA is the solution to this problem. As described in Bill Hogg's declaration, one of the transaction's principal effects and an important underlying rationale is to enable AT&T to address capacity constraints.²⁵ By providing increased network and spectrum efficiencies where urgently needed, the transaction will substantially expand AT&T's ability to meet the soaring traffic demands from existing and innovative new uses of its networks.²⁶ That extended running room to meet the needs of both

²⁵ Hogg Decl. ¶¶ 42-64.

²⁶ *See id.*

AT&T's and T-Mobile USA's existing customers will permit a much smoother transition to LTE service for all of those users.²⁷ Innovation can remain our principal focus.

B. The Transaction Also Increases the Longer-Term Incentives and Ability of AT&T and Others to Develop and Deliver Innovative Broadband Mobile Products and Services, Especially in Rural Areas.

50. The transaction will also increase innovation for advanced broadband mobile services over the longer term. With the added spectrum and resources provided by the transaction, AT&T has committed to build out a next-generation LTE network that reaches over 97 percent of the population. This expanded buildout will further enhance innovation in at least two major ways.

51. First, every party throughout the ecosystem will have greater incentives to innovate when those innovations can be offered on a broader, deeper, and more robust LTE network. A more expansive network that can reach more than 300 million consumers will give greater certainty regarding the potential returns on investments in broadband devices and services, which in turn will induce higher levels of investment and innovation in those services. The transaction also increases the assurance that AT&T will have sufficient spectrum to support its LTE network prior to auctions for additional spectrum (the timing of which is uncertain), which will further enhance innovators' confidence in deploying new devices and services on AT&T's LTE network. The enhanced innovation on AT&T's network will, in turn, increase pressure on AT&T's facilities-based wireless broadband competitors, including Verizon, Sprint, Clearwire, MetroPCS, Leap, and LightSquared, among others, to press for increased innovation on their own networks. The transaction will therefore help to ensure that the innovation cycle continues as vigorously as possible for LTE services.

²⁷ *See id.*

52. Second, the expanded scope of AT&T's LTE network resulting from the transaction will especially promote innovations aimed at rural Americans. As a result of the transaction, AT&T's LTE network will extend to nearly 55 million additional people, including many rural areas and smaller communities. As explained above, LTE provides higher throughput rates and substantially reduced latency, which will allow AT&T to support a wide variety of beneficial new services for rural customers. The possibilities are wide ranging, but LTE is especially valuable in supporting services that depend on real-time interaction, and therefore expanding AT&T's LTE network to more rural areas holds the promise of more services permitting: (1) remote education with real-time interaction between students and teachers, (2) remote telemedicine applications that allow real-time interactions between patients and doctors and much more accurate assessments of monitoring devices and other complex information such as X-rays, and (3) business-related applications that allow more efficient interaction between businesses and customers.


53. These abundant opportunities will significantly expand the potential rural customer base for such services and thus provide strong incentives for additional innovation and advanced services aimed at rural customers. As a result of the transaction, the same virtuous cycle of innovation that has driven the growth of the mobile broadband sector as a whole will be extended to include rural customers and the services specifically tailored to those customers.

CONCLUSION

54. In sum, the proposed transaction will enhance innovation throughout the wireless ecosystem in numerous ways. The transaction will address the capacity constraints on AT&T's network, and thus will substantially improve AT&T's ability to continue to support the introduction and growth of innovative services that place demands on our networks. Because all

levels of the wireless ecosystem depend on robust networks that have sufficient capacity to support their products and services, the transaction will help AT&T continue to play an important role in driving the overall cycle of innovation that has produced so many benefits for consumers and promises many more benefits in the transition to LTE. And the transaction allows AT&T to commit to extending its LTE network to nearly 55 million additional people and thus will have special, additional benefits for rural customers.

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 20, 2011



John Donovan
Chief Technology Officer, AT&T, Inc.

Declaration of William Hogg

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DECLARATION OF WILLIAM HOGG

I, William Hogg, hereby declare the following:

I. BIOGRAPHICAL INFORMATION

1. I am Senior Vice President of Network Planning and Engineering, AT&T Services, Inc. (“AT&T”). I was appointed to that position in November 2008. I am responsible for the wireline and wireless network engineering functions of the company. I manage the multi-billion dollar network capital plan and am charged with integrating acquired assets into the company. My wireless responsibilities range from expanding and increasing the capacity of our mobile broadband networks to improving the quality of our wireless services, to planning and deploying new, more spectrally efficient network technologies. My responsibilities also extend to solutions throughout our entire network infrastructure, including the facilities over which we deliver our wireline broadband Internet, wireline telephone, and U-verse advanced TV services.

2. Prior to my current position, I served as President of Mobility Network Operations, where I oversaw all phases of network engineering, cell site and other construction activities, and operations and maintenance across the entire wireless footprint. I previously held a variety of network strategic planning and new product deployment roles, including Chief Technology Officer for Cingular Interactive, where I was responsible for engineering, information technology, and software and application development for Cingular’s wireless data business. I have been involved in the planning and execution of many large-scale company-wide initiatives, including the complex merger integration activities following the consolidation of Cingular and AT&T Wireless and subsequent integrations of Dobson, Centennial, and Alltel

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properties. I have also overseen our mobile wireless broadband network upgrades from the planning stages of AT&T's initial Universal Mobile Telecommunications System ("UMTS") deployment through our current upgrade to Long Term Evolution ("LTE"). I hold Bachelor's and Master's degrees in Electrical Engineering from the Georgia Institute of Technology, as well as a Master's degree in Business Administration from the University of South Florida.

II. INTRODUCTION AND OVERVIEW

3. The U.S. wireless industry has experienced rapid growth in demand for mobile broadband services in recent years, and there is consensus that this trend will continue. The rise of data-intensive smartphones, tablets, and other consumer and commercial devices connected wirelessly to the Internet, as well as the resulting explosion of mobile applications, social networking capabilities, video and music streaming, and other rich media has dramatically increased data traffic. Emerging cloud computing, real-time interactive video, and other mobile innovations promise to create even greater demand in the future.

4. As my colleague John Donovan, AT&T's Chief Technology Officer, details in his declaration, AT&T is an industry leader in the wireless broadband revolution, introducing and aggressively promoting the latest network technologies, as well as innovative new smartphones and other connected devices capable of far greater speeds and far more useful applications than earlier handsets.¹ As a result, AT&T's network has been uniquely strained by the exponential growth in data traffic. AT&T faces severe spectrum and capacity constraints in certain markets today and projects that such constraints will increase and expand to many other areas throughout

¹ Declaration of John Donovan, Chief Technology Officer, AT&T Inc., ¶¶ 4-5 (April 20, 2011).

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the country over the next several years. Thus, additional spectrum and network capacity is needed to address existing and growing future capacity constraints. We need to act immediately in light of the lead time needed to address such spectrum and capacity issues.

5. These network capacity challenges are compounded by the fact that we must continue to allocate our limited spectrum and other resources among three different network technologies. Close to **[Begin Confidential Information]** **[End Confidential Information]** customers – nearly **[Begin Confidential Information]** **[End Confidential Information]** of AT&T’s subscribers – continue to rely solely on AT&T’s earlier generation Global System for Mobile Communications (“GSM”) network for their wireless communications needs. Although those customers will migrate over time to more spectrally efficient UMTS and/or LTE services, AT&T must continue to provide sufficient GSM capacity well into this decade to ensure that those customers are able to receive quality service in the interim. At the same time, AT&T must support the **[Begin Confidential Information]** **[End Confidential Information]** customers that receive service on its UMTS network for a substantial number of years, while dedicating sufficient additional spectrum for its planned LTE deployment that is beginning this year.

6. Our ability to quickly meet these capacity challenges with our existing spectrum inventory is extremely limited. Rising demand has been consuming our limited spectrum resources at a rapid and accelerating rate. In 2004, AT&T on average had to deploy an additional 10 MHz of spectrum every two years in major markets to keep pace with demand. From 2008-2010, UMTS demand growth in certain major markets consumed an additional 10 MHz of spectrum in half that time or less.

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7. Consequently, AT&T faces spectrum and capacity constraints in a significant number of markets large and small. In many areas throughout the country, we need or very soon will need substantial network capacity to continue providing high quality service (and to launch and support new services). By 2013, AT&T estimates that it will lack adequate capacity to meet existing GSM and UMTS performance targets in more than **[Begin Confidential Information]**

[End Confidential Information] Cellular Market Areas (“CMAs”) located throughout the country in urban and rural areas that collectively cover more than **[Begin Confidential Information]** **[End Confidential Information]** people and in additional markets in subsequent years thereafter. AT&T also projects capacity constraints as early as **[Begin Confidential Information]** **[End Confidential Information]** on its LTE network in **[Begin Confidential Information]** **[End Confidential Information]** as customers migrate to that service. While we will continue to address spectrum constraints on a market by market basis, this transaction allows AT&T to address these constraints (and the corresponding diminished service quality risk) while also enhancing AT&T’s ability to deploy innovative new advanced wireless services and devices.

8. AT&T has made, and continues to make, extraordinary efforts to keep pace with the soaring demand for mobile broadband and to maintain and improve performance on its GSM and UMTS networks. AT&T has invested in spectrum acquisitions both to create additional capacity on existing networks and to support the next generation of mobile broadband networks. AT&T has migrated spectrum from GSM to UMTS as quickly as its commitment to maintain quality service to our GSM customers will allow. AT&T has continually invested in upgrades to its UMTS network to improve spectral efficiency, most recently to the HSPA+ technology, and

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the company is in the initial stages of deploying LTE technology, which, among other things, will increase throughput speeds, reduce latency, and enable wider carrier bandwidths that will further increase spectral efficiency. AT&T has spent approximately **[Begin Confidential Information]** **[End Confidential Information]** annually in recent years to further enhance capacity by increasing cell density through new cell sites (cell splitting), additional UMTS radio carriers, and network performance optimization (high-speed backhaul, sector reorientation, antenna tilts, and other modifications). AT&T also has been an industry leader in solutions designed to off-load traffic from, and reduce demands on, our GSM and UMTS wireless networks. AT&T operates more than 24,000 Wi-Fi hotspots at locations in all 50 states, and we have aggressively deployed distributed antenna systems (“DAS”)² and other solutions to relieve localized network congestion.

9. Despite these efforts, we continue to be outpaced by soaring demand growth, and all of the measures we have been actively pursuing are not only more costly than spectrum solutions, but ultimately insufficient to broadly address the growing capacity challenges we face. With no additional spectrum scheduled to be auctioned in the near term, very limited secondary market spectrum opportunities, the imperative of continuing to support multiple networks, and the unavoidable delays and limits associated with constructing new cell sites and other network responses, we are thus threatened with spectrum exhaust in numerous markets.

² Distributed antenna systems are collections of small antennas that are deployed over a small geographic area and then connected back to a central location through fiber. They can be used to fill in gaps in cell coverage and to increase capacity within a geographically limited area.

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10. This transaction provides by far the most effective, efficient, and immediate solution to address these capacity challenges. AT&T and T-Mobile USA have highly complementary wireless technologies (GSM and UMTS), spectrum holdings (PCS and AWS) and network grids (cell site locations). For that reason, the combined company will be able to quickly implement direct capacity-creating synergies by combining networks, sharing spectrum, splitting cells, and shifting spectrum from less to more spectrally efficient network technologies to alleviate the network capacity constraints facing both companies over the coming years. These synergies will provide the combined company with the flexibility to optimize network solutions for each individual market's specific needs. Moreover, these synergies will create a true "1+1=3" scenario in which the combined company has significantly more capacity – and the ability to serve significantly more customers and demand – than the sum of the two companies' capacities if they continued to operate separately. These efficiencies are specific to the combination of these two companies and far exceed those that could be generated from combining two other companies and their networks.

11. Taking all of the expected network and spectrum efficiencies into account, AT&T's ongoing analysis projects that the transaction will substantially increase GSM and UMTS network capacity in congested areas and push back the date of projected spectrum exhaust, allowing for LTE migration and the ramping down of the GSM networks to ease traffic congestion on UMTS networks. This will provide the necessary turn-around space to re-purpose spectrum to more efficient radio technologies. The transaction will also ease serious capacity constraints we would otherwise expect on our LTE network as that network becomes heavily used. These very substantial capacity gains and the additional "running room" they provide will

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quickly deliver a myriad of significant benefits to the current and future customers of AT&T and T-Mobile USA. Because of this transaction, customers can expect fewer dropped and blocked calls and data connections, faster and more reliable data services, a better overall mobile broadband experience, and expanded and improved LTE service. In addition, as John Donovan explains in his declaration, the increased capabilities the transaction makes possible will strongly promote innovation and the successful introduction of new wireless capabilities by AT&T and others throughout the wireless ecosystem.

12. There are numerous network efficiencies that will result from the combination of the two companies' spectrum holdings and network assets. We estimate that these efficiencies, in combination, will push back the date of expected spectrum exhaust in many markets, particularly in our constrained markets. Two broad categories of network efficiencies will address these spectrum exhaust issues:

- **Increased Cell Density.** The combined company expects to integrate more than [Begin Confidential Information] [End Confidential Information] T-Mobile USA cell sites into the AT&T network. Upon network integration, this will equate to "instant" cell splits – increasing cell density and effectively doubling the amount of network traffic that can be carried using existing spectrum in the areas served by those cell sites. Importantly, this network integration will start immediately after closing, can be targeted initially to areas with the greatest capacity needs, and can provide fewer dropped calls, higher throughputs, and other service improvements in areas of various markets in as early as nine months, with nationwide integration expected to be complete in twenty-four months. These benefits will be realized far sooner and with far more impact than could ever be accomplished by attempting to duplicate the T-Mobile USA cell sites (and backhaul) from scratch (even assuming away site availability, tower capacity, zoning, and other real-world obstacles to such cell site construction). Following network integration, the cell splits will create immediate capacity improvements across the combined company's GSM and UMTS network and also will expand capacity as AT&T rolls out LTE.
- **More Efficient Network Utilization.** In several important respects, the transaction will facilitate much more efficient utilization of the integrated networks than either

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company could accomplish on its own, allowing the combined company to carry much more voice and data traffic for more customers and provide significantly better service quality. The transaction will allow us to:

- free up an additional 4.8 to 10 MHz of spectrum in each market where AT&T and T-Mobile USA offer GSM service by eliminating redundant GSM control channels, greatly improving the combined company's flexibility to meet capacity and performance challenges;
- maximize the capacity-enhancing "channel pooling" efficiencies associated with combining separate channel pools that allow more customers to be served per MHz of spectrum deployed, providing a substantial capacity boost even in areas where both companies' networks are heavily loaded; and
- optimize the spectrum allocation in areas where one company's network and spectrum are underutilized relative to the other's, driving improvements in both performance and capacity in those areas.

13. These efficiencies, in combination, will provide substantial additional capacity gains where we need them most, allowing us to improve performance (*e.g.*, reduced blocked and dropped call rates, improved data connections, and better coverage, especially in-building) and to accelerate the shift of spectrum from less spectrally efficient to more spectrally efficient network technologies (*i.e.*, GSM to UMTS and UMTS to LTE). We anticipate that in some of the areas where AT&T's capacity constraints are most severe, this transaction will allow for the deployment of additional UMTS carriers and additional spectrum for LTE, increasing our capacity and bridging the gap between our existing capacity and the demands that will be placed on our networks, until new spectrum is made available and can be deployed.

14. The transaction also will deliver significant additional LTE benefits throughout the country, including both improved mobile broadband performance and substantially expanded coverage. The transaction will ease LTE capacity constraints that we otherwise expect to face as early as **[Begin Confidential Information]** **[End Confidential Information]** by providing

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the combined company with the flexibility to use existing AWS spectrum positions or to re-farm and re-purpose T-Mobile USA's AWS spectrum to address LTE network spectrum exhaust challenges in certain markets (and ultimately to add that AWS spectrum and additional capacity to the LTE deployment in all markets). The transaction will also greatly enhance LTE network coverage, providing tens of millions of Americans who would not have been able to receive LTE service from AT&T or T-Mobile USA that option. With the efficiencies associated with the transaction, the combined company will deploy LTE to over 97% of the U.S. population, including in rural and smaller communities, thereby reaching approximately 55 million more Americans than under AT&T's current LTE deployment plans.³

15. In short, this transaction will allow the combined company to "bridge the capacity gap" while AT&T's LTE network is deployed and customers are migrated to that more efficient radio technology and until new spectrum and new technologies become available. In doing so, the transaction will provide enormous benefits to consumers who will enjoy better and more innovative wireless services.

III. TECHNOLOGICAL OVERVIEW

16. Spectrum is the building block for the evolution of wireless technology. Each evolution in wireless technology brings spectrum efficiencies. Those improvements to wireless technology fuel more data-intensive applications and increased subscriber consumption and

³ When the parties announced this transaction in March 2011, AT&T initially stated that it would deploy LTE to 95% of the U.S. population. AT&T has now conducted a more refined analysis of the scope and capabilities of their combined network and identified T-Mobile USA and AT&T cell sites that it had not previously counted on for LTE expansion, but that will allow the expansion of LTE into areas not previously included. The parties are thus now increasing the scope of this commitment to more than 97.3%.

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expectations for more advanced mobile wireless services, triggering the need for additional spectrum resources. Moreover, as new technologies are introduced, AT&T must continue to provide quality service to its embedded base of subscribers on prior generations of technology until those customers migrate to the new technologies.⁴ This transaction provides AT&T with the spectrum and network depth that it needs to support its current and future wireless networks in the near and medium terms and will bring the most advanced wireless service to more Americans than otherwise possible.

A. Digital Cellular Services

17. AT&T delivers its second generation digital service using the GSM standard.⁵ GSM technology provided increased speed and bandwidth over analog technologies and enabled more data-intensive applications such as mobile-to-mobile photo messaging and emails with complex attachments. GSM has a much lower spectral efficiency than more recent technologies.⁶

18. AT&T uses its 850 MHz cellular and 1900 MHz PCS spectrum to provide service on its GSM network. The company's GSM network covers more than 300 million people in the United States. As of the end of 2010, AT&T had approximately **[Begin Confidential**

⁴ Customer handsets, purchased over many years, are designed for particular standards and frequency bands, and they will not work with newer technologies or on other frequency bands.

⁵ The first generation of wireless service in the United States – analog cellular networks – are no longer used.

⁶ The General Packet Radio Service (“GPRS”) standard is a second generation technology that provides low to medium speed data transmission capability. Enhanced Data rates for Global Evolution (“EDGE”) is an initial stage of mobile broadband technology that provides medium speed data transmission capability.

Information] **[End Confidential Information]** GSM-only subscribers. AT&T's GSM subscribers have dual-band handsets that are compatible with 850 MHz cellular and 1900 MHz PCS spectrum.

19. Like AT&T, T-Mobile USA has deployed second generation digital service using GSM technology.⁷ As described in the Declaration of Dr. Kim Kyllsbech Larsen, T-Mobile USA uses its 1900 MHz PCS spectrum to provide service on its GSM network, which covers 280 million people.⁸ T-Mobile USA has approximately **[Begin Confidential Information]** **[End Confidential Information]** GSM-only subscribers, which constitutes about **[Begin Confidential Information]** **[End Confidential Information]** of its subscriber base.⁹ In order to facilitate roaming, the vast majority of T-Mobile USA's GSM subscribers have dual-band handsets that are compatible with the 850 MHz cellular and 1900 MHz PCS spectrum GSM technologies deployed in AT&T's network.¹⁰

B. Mobile Broadband Services

20. AT&T initially deployed mobile broadband services using the UMTS standard, which was later enhanced with High Speed Downlink Packet Access ("HSDPA"). With the UMTS/HSDPA combination, AT&T provided higher-speed data transmission, which allowed for more advanced applications, faster Internet access, music downloads, remote access to a

⁷ See Declaration of Dr. Kim Kyllsbech Larsen, Senior Vice President, Technology Service and International Network Economics, Deutsche Telekom AG, ¶ 11 (April 19, 2011) ("Larsen Decl.").

⁸ See *id.*

⁹ See *id.*

¹⁰ See *id.*

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home or office desktop, and more efficient, high-quality voice service. The AT&T network was later upgraded to include High Speed Uplink Packet Access (“HSUPA”). The combination of HSDPA and HSUPA is referred to as High Speed Packet Access (“HSPA”). UMTS/HSPA is significantly more spectrally efficient than GSM.

21. AT&T uses 10 MHz blocks of spectrum for each “carrier” of UMTS traffic, with 5 MHz for the downlink and 5 MHz for the uplink. Subsequent pairs of 5 MHz blocks of spectrum are needed for each additional carrier. Additional carriers of spectrum are the means by which additional capacity is provided to meet increasing demands for mobile broadband service. Thus, UMTS capacity can be grown in building-block fashion so that AT&T’s network can provide service to a larger number of simultaneous users who use more bandwidth-intensive data services. Because of the high demand for wireless broadband services, AT&T already has deployed four carriers (using a total of 40 MHz of spectrum) in some areas and, to the extent spectrum is available, has plans to deploy more in the near future.

22. AT&T presently supports UMTS with 850 MHz cellular and 1900 MHz PCS spectrum, which it also uses for GSM services. Therefore, every carrier deployed for UMTS requires 10 MHz of this spectrum that must be re-purposed from GSM. AT&T has deployed HSPA+ to all of its UMTS sites and is expanding the UMTS/HSPA+ network to include the remaining GSM-only sites. AT&T’s UMTS network presently covers approximately 260 million people and, as of the end of 2010, had approximately **[Begin Confidential Information]**

[End Confidential Information] UMTS subscribers. AT&T’s UMTS subscribers have dual-band handsets that are compatible with cellular and PCS spectrum and that support GSM services when UMTS is not available.

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23. Like AT&T, T-Mobile USA has deployed a mobile broadband network using the UMTS standard with HSPA or HSPA+. T-Mobile USA's HSPA network now covers 212 million POPs and its HSPA+ coverage includes 200 million POPs. The company currently serves approximately **[Begin Confidential Information]** **[End Confidential Information]** UMTS subscribers with its HSPA/HSPA+ network. T-Mobile USA has utilized its AWS spectrum to provide service to its UMTS subscribers.¹¹ Those subscribers have handsets that use AWS frequencies for HSPA/HSPA+ and PCS spectrum for GSM. The vast majority of handsets also support GSM services on 850 MHz spectrum.

C. Long Term Evolution

24. AT&T has begun deployment of LTE, a further advanced mobile broadband technology. LTE is a major advancement for the mobile industry concerning performance and spectral efficiency. Unlike HSPA, which is approaching the end of its development cycle, LTE development is just starting to gain momentum. Even in its launch phase today, LTE offers peak data speeds that are up to four times faster than HSPA+ and two times faster than HSPA+ with dual carriers. With LTE, AT&T will be providing a new, high speed broadband alternative throughout the country, including in rural areas.

25. In addition to offering faster peak data speeds, LTE technology is about 30-40% more spectrally efficient than HSPA+ (and 860% more spectrally efficient than GSM with EDGE, given equivalent amounts of spectrum). LTE average sector throughput increases

¹¹ See Larsen Decl. ¶ 11.

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linearly with the bandwidth deployed, and there is also a frequency selective scheduling gain, that provides an additional 2.5-5% of spectral efficiency with greater bandwidths.¹²

26. LTE also has dramatically reduced latency, which provides subscribers with a significantly better mobile broadband experience. The basic time scheduling unit or “frame” time for LTE is 1 millisecond, which is half the frame time for HSPA/HSPA+. This allows LTE to schedule twice as many users on average and thus realize a net capacity gain in a multiple user environment. In addition, the shorter frame time allows for more retransmissions of packets in a given time interval, which improves the probability that a packet is delivered correctly without inducing unacceptable delay. Reduced latency is particularly important for delay-sensitive services such as VoIP, online gaming, and video conferencing. LTE uses an Internet Protocol (“IP”) based architecture, which, among other things, can carry voice over IP and data in the same channel, allowing for more efficient carriage of traffic and new and innovative converged applications that use both voice and data.

27. AT&T is using its AWS and 700 MHz spectrum holdings to deploy its LTE network and currently plans to cover approximately 250 million people, or 80% of the U.S. population, by the end of 2013. As it rolls out LTE and customers begin to migrate to the service, AT&T also must continue to reserve sufficient spectrum to provide high-quality service for its GSM and UMTS subscribers for a number of years. AT&T projects that it will use its cellular and PCS spectrum holdings to support GSM services and UMTS for a number of years

¹² This latter gain is achieved provided the cell densities are such that operation is more interference-limited than noise-limited, which will be the case with a mature LTE deployment.

because of the relative infancy of the LTE ecosystem and the time it will take subscribers to migrate to handsets utilizing the next generation of technologies.

IV. LIMITATIONS IMPOSED BY AT&T'S NETWORK CAPACITY CONSTRAINTS

28. Although all wireless carriers are experiencing increasing demand for mobile broadband service, AT&T faces unique spectrum and capacity constraints in certain areas that are specific to its need to support three technologies with its usable spectrum and its position as an industry leader in wireless innovation and smartphone adoption. Absent a solution, these constraints will lead to the degradation of existing services and the inability to deploy innovative new services and devices that would drive further increases in demand.

A. Demand for Mobile Broadband Services

29. The wireless industry is evolving rapidly in response to the growing demand for wireless broadband services. Over only a few years, handsets have evolved from simple phones capable of basic voice communication to integrated broadband devices that support social networking, streaming video and music, video teleconferencing, and other bandwidth-intensive applications. Hundreds of thousands of applications are available for these smartphones, with more being released every day. The "always on" nature of these applications increases both data traffic and the corresponding signaling that consumes valuable radio resources. In the past year, tablet devices also have become increasingly popular.

30. As explained by John Donovan, as an industry leader in wireless innovation, AT&T has been at the center of the skyrocketing demand for mobile broadband services. AT&T has both enhanced the capabilities of its networks and launched a portfolio of Internet-connected devices, like the iPhone and Android smartphones, the iPad and Android tablet computers,

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eReaders, and others. AT&T subscribers in turn have embraced these bandwidth-intensive devices, placing unprecedented demand on AT&T's network. Due in part to the rapid adoption of these devices and applications, AT&T experienced an 8,000% increase in mobile data use from 2007-2010. We project this trend will continue, fueled by the proliferation of new wireless broadband devices for both consumers and businesses and an ever-increasing array of new wireless applications and services.

B. Efforts to Keep Pace with Demand Are Increasingly Inadequate

31. AT&T has aggressively pursued every means reasonably available to it to address capacity concerns and to attempt to meet projected demand in each of the areas it serves. We have invested heavily to upgrade to each successive, more spectrally efficient UMTS technology, often doing so before any other carrier. As noted, we have already deployed HSPA+ throughout our UMTS footprint, and we are expanding the deployment of HSPA+ to our GSM-only service areas (where spectrum is available).

32. We have deployed more and more of our limited spectrum resources to our UMTS networks, adding successive additional 10 MHz carriers as demand outstrips capacity. At the same time, we are constantly investing in modifications to our network architecture to increase capacity and optimize performance. AT&T has added capacity-expanding cell sites, reducing cell sizes and increasing cell density to add capacity. And we have reoriented sectors, upgraded and optimized antennas, added radios and nodes, and taken numerous other steps to improve performance. In recent years, AT&T has spent approximately **[Begin Confidential Information]** **[End Confidential Information]** per year on these capacity-expanding activities.

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33. Because we are running out of spectrum to deploy another 10 MHz carrier in many areas, we have pursued opportunities to purchase or lease spectrum when and where contiguous spectrum bands are available.¹³ AT&T also has acquired spectrum for and begun a multi-billion dollar deployment of LTE technology, which is more spectrally efficient than HSPA+ and will ease capacity constraints on its UMTS network once a significant number of subscribers migrate.

34. AT&T has also invested heavily in the full range of “off-loading” solutions designed to shift usage from our congested macro wireless network to other networks. AT&T operates more than 24,000 Wi-Fi hotspots, and we also deploy indoor and outdoor DAS networks. For example, in Downtown Chicago, AT&T installed a DAS network to off-load heavy usage due to business and festival traffic in a concentrated area. AT&T also has deployed a Wi-Fi Hotzone¹⁴ in Times Square in New York City to allow AT&T subscribers free Internet access using any Wi-Fi-enabled device. AT&T has launched Wi-Fi Hotzones in other congested areas as well, including downtown Charlotte, North Carolina, and Chicago’s Wrigleyville. AT&T also has implemented a tiered pricing structure for data plans to encourage heavy data users to be more mindful of their usage.

¹³ The spectrum that AT&T acquired in 2010 as a result of the divestitures made by Verizon Wireless/Alltel primarily expanded AT&T’s footprint to cover areas where AT&T previously had not owned a network. Because there was very little overlap between AT&T’s existing service area and the areas covered by the acquired wireless business, that transaction did not provide any relief from AT&T’s capacity challenges.

¹⁴ An AT&T Wi-Fi “Hotzone” is essentially an outdoor Wi-Fi network that covers a larger area than a Wi-Fi hotspot.

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35. Despite these various measures by AT&T to conserve its spectrum by using it more efficiently – from deploying UMTS, then HSPA and HSPA+, to cell splitting and other capacity-expanding measures, to off-loading traffic, to adopting rate plans that incent heavy users to be mindful of their usage – the pace at which AT&T must expand its network capacity continues to increase as a result of the growth in mobile broadband traffic on its network.

C. Impact of Spectrum Constraints

36. AT&T projects that it will not have enough cellular and PCS spectrum to support both GSM and UMTS services over the next three years in more than **[Begin Confidential Information]** **[End Confidential Information]** CMAs, which cover more than **[Begin Confidential Information]** **[End Confidential Information]** people.¹⁵

1. Inability to Deploy New UMTS Carriers Where Needed

37. AT&T expects, because of spectrum constraints, it will be unable to deploy additional carriers in areas when and where they will be needed. Indeed, AT&T projects that, over the next three years, it will require, but currently lacks, the cellular and PCS spectrum to deploy additional UMTS carriers in approximately **[Begin Confidential Information]**

[End Confidential Information] covering nearly **[Begin Confidential Information]** **[End Confidential Information]** people. Of these, there are **[Begin**

¹⁵ The projections are based on AT&T's most recent forecast of GSM and UMTS voice and data traffic. This forecast includes assumptions regarding subscribership, usage, and other factors that are applied through a model for capital budgeting and network planning purposes. Given the complex characteristics and variability at a market level, operational performance metrics such as power and code exhaust are used to determine the actual date to trigger additional carriers and re-purpose spectrum to UMTS. We have found that, in practice, spectrum exhaust may, and in some cases will likely, occur even sooner than forecasted by the planning models.

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Confidential Information] **[End Confidential Information]** CMAs that we expect will exhaust between now and **[Begin Confidential Information]** **[End Confidential Information]**, and **[Begin Confidential Information]** **[End Confidential Information]** additional CMAs by the end of **[Begin Confidential Information]** **[End Confidential Information]**. These areas include large markets, such as **[Begin Confidential Information]** **[End Confidential Information]**, as well as smaller cities and rural areas, such as **[Begin Confidential Information]** **[End Confidential Information]**

[End Confidential Information]. In addition to these **[Begin Confidential Information]** **[End Confidential Information]** markets exhausting in the next three years, AT&T projects other markets will face exhaust in subsequent years.

38. The inability to expand capacity when and where it is needed will have real and substantial adverse effects on subscribers if no solution is obtained. There would be a degradation in service, and consumers would experience increased blocked and dropped calls and data connections, slower broadband service, and other reductions in service quality. Conversely, with the cell site and spectrum utilization efficiencies provided by this transaction – that would both push out spectrum exhaust dates and provide a path for accelerated re-farming of GSM spectrum to UMTS networks – broadband throughput speeds will rise, more calls and data traffic can be accommodated, and customers will experience decreased rates of dropped and blocked calls.

2. Inability to Launch and Support UMTS Service

39. AT&T's capacity constraints threaten to affect much more than service quality. In **[Begin Confidential Information]** **[End Confidential Information]** CMAs, covering more than **[Begin Confidential Information]** **[End Confidential Information]** people throughout the country, AT&T lacks the cellular or PCS spectrum in one or more counties to launch and support UMTS service. These areas include **[Begin Confidential Information]** **[End Confidential Information]**. Without more spectrum, AT&T can only provide GSM service in these areas. In all of these areas, without additional spectrum, AT&T's capacity constraints mean that customers will be denied the significant benefits that accompany an upgrade from GSM to UMTS with HSPA+, and AT&T will be unable to take advantage of the spectral efficiencies that flow from such an upgrade.

D. **LTE Is Not A Solution to Capacity Concerns In the Near to Mid Term**

40. Although the efficiency and capacity gains from the ultimate transition to LTE will be significant and will eventually relieve pressure on our UMTS networks, that relief will take many years to realize. AT&T currently plans to deploy LTE to reach 70 million people by the end of 2011 and approximately 250 million people – 80% of the U.S. population – by the end of 2013. Even then, it will take a number of years before a majority of customers to whom LTE is available actually use LTE. Based on experience, AT&T projects that it will have to continue to utilize spectrum to provide quality service to GSM and UMTS customers for a substantial period of time, preventing AT&T from re-purposing such spectrum to support LTE service for many years. Indeed, in the first year after AT&T launched UMTS service, **[Begin Confidential**

Information] **[End Confidential Information]** of its customers subscribed to UMTS service. After five years, about **[Begin Confidential Information]** **[End Confidential Information]** of its customers subscribed to UMTS service.

41. This long transition time means that the deployment of LTE will not help address AT&T's current capacity concerns. Moreover, as we migrate subscribers to LTE, they will place heavy demand on that network, and our current forecasts suggest that we are likely to face LTE capacity challenges in a number of areas as early as **[Begin Confidential Information]** **[End Confidential Information]** without additional spectrum.

V. THIS TRANSACTION ADDRESSES CAPACITY CONCERNS AND CREATES SIGNIFICANT EFFICIENCIES AND CONSUMER BENEFITS

42. Due to the highly complementary nature of the AT&T and T-Mobile USA technology deployments, cell site grids, and spectrum holdings, this transaction provides by far the most efficient and effective means to address both companies' spectrum and network capacity constraints. Integrating the companies and their networks will result in a variety of unique network synergies that will directly benefit both companies' customers and could not be realized either at all or to the same extent through other transactions or methods. As described more fully in the following sections, the many synergies that will directly address the merging companies' spectrum exhaust issues can be grouped into two broad categories: (1) capacity and performance improvements associated with increased cell density, and (2) capacity and performance improvements associated with more efficient network utilization. It is important to recognize that each of these projected synergies will provide not only direct capacity and performance benefits as networks are integrated, but equally, if not more, important capacity and performance benefits in accelerated migration of spectrum from less spectrally efficient networks

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to more spectrally efficient networks – *i.e.*, GSM to UMTS and, ultimately, to LTE. An additional set of synergies will provide both companies’ customers with a much better next generation experience through an LTE network with greater capacity and expanded coverage. With this transaction and the attendant network efficiencies, the combined company will be able to provide a higher quality of service more efficiently, sooner, and to a larger number of subscribers than either company could on its own.

A. Cell Site Density Expansion from Integration of T-Mobile USA Sites

43. Cell-splitting has a direct and immediate impact on capacity. In certain circumstances, “splitting” of cells through the addition of new cell sites is feasible and can produce dramatic capacity gains. To provide a simple example, if a cell covering a given area is divided into two equally-sized cells covering that same area, total capacity – the total amount of traffic that can be handled in that area – can *double*. The problem, of course, is that after years of aggressive cell-splitting activities to improve capacity, coverage, and performance, it has become more and more difficult to find suitable locations where new sites can be deployed in a timely, economically feasible manner. In many cases, there simply are no suitable locations that could be brought on line in time to meaningfully address spectrum exhaust issues. This transaction solves that problem by making available to AT&T thousands of already operational cell sites that T-Mobile USA has built over many years (and vice versa). The two network grids

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are remarkably complementary – T-Mobile USA has many sites where AT&T needs them and AT&T has many sites where T-Mobile USA needs them.¹⁶

44. AT&T estimates that it will integrate more than **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA's cell sites into the combined company's networks. This integration, which will provide tremendous capacity gains in some areas, can begin immediately upon closing, can be targeted on a rolling basis to the areas facing the most serious spectrum constraints, and can provide dropped call, higher throughputs and other service improvements in areas of certain markets in nine months, with nationwide integration complete in twenty-four months after closing.

45. The fact that both companies use the same compatible network technologies will allow for a more rapid integration of T-Mobile USA's cell sites into AT&T's networks than if different network technologies were employed. Much of the specialized hardware at cell sites will be compatible with both networks, and employees from both companies will have expertise in the other company's network technology and architecture. Moreover, AT&T has a proven track record of quickly integrating cell sites after mergers.

46. AT&T will begin the integration process by identifying those areas most in need of capacity relief. The company will then attach a multi-band (700 MHz, 850 MHz, 1900 MHz, and AWS bands) antenna to the site and place AT&T's equipment on it. This will add the site

¹⁶ **[Begin Confidential Information]**

[End Confidential Information].

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into AT&T's network, effectively achieving an "instant" cell split and expanding network capacity equal to building an entirely new site. Each added site will approximately double the amount of network traffic that can be carried in existing spectrum in the vicinity of the site and relieve nearby sites of network congestion. These instant cell splits will provide additional capacity on the combined company's existing GSM and UMTS network. Further, as AT&T deploys LTE, the approximately **[Begin Confidential Information]** **[End Confidential Information]** integrated cell sites will provide a denser grid and enhance capacity for LTE as well.

47. These cell density synergies can be achieved in urban areas and to a lesser degree in rural areas, although the extent will vary by market. For example, AT&T projects that integration of T-Mobile USA's sites will increase cell density by as much as 35-45% in Chicago; 25-35% in San Francisco and New York; nearly **[Begin Confidential Information]** **[End Confidential Information]** in Wichita, Kansas; and nearly **[Begin Confidential Information]** **[End Confidential Information]** in Tupelo, Mississippi and Jefferson City, Missouri. These increases in network density will improve capacity far more quickly than either company could hope to accomplish on its own in the same time period – either by adding cell sites, building more towers, or through other commercial arrangements. And, it allows AT&T to push back projected spectrum constraint dates in capacity-challenged markets.

B. Elimination of Redundant Control Channels

48. The combined company also will be able to free up a significant quantity of spectrum devoted to GSM service by eliminating redundant control channels, which handle signaling. AT&T and T-Mobile USA now each generally dedicate a range of 4.8 to 10 MHz of

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spectrum to GSM control channels, depending on the network design.¹⁷ As the GSM networks are integrated, the combined company will be able to eliminate redundant control channels, freeing spectrum for other use on a nationwide basis. This gain in spectrum, upon integration of the GSM networks, can be used to improve GSM service in congested areas or redeployed and used more efficiently to address congestion on UMTS networks. Eliminating the redundant control channel is a unique benefit to this transaction that would not be possible if not for the compatible nature of the two companies' technologies. The control channel efficiency will significantly enhance the combined company's flexibility to respond to UMTS spectrum exhaust. For example, in markets where AT&T currently has only 5 MHz of UMTS-compatible spectrum available, freeing up an additional 5 MHz of such spectrum through elimination of redundant GSM control channels may allow the deployment of an additional 10 MHz UMTS carrier that would not otherwise have been possible.

C. Channel Pooling Efficiencies¹⁸

49. Because AT&T and T-Mobile USA use GSM technologies and similar spectrum bands, the combined company's GSM network (and also the UMTS networks as they are integrated over time)¹⁹ will have the unique benefit of "channel pooling" efficiencies.

Combining the companies' GSM spectrum in areas where there is overlap will create channel

¹⁷ The amount of spectrum for a GSM control channel varies based on frequency reuse plans of each company in a given market.

¹⁸ Channel pooling efficiencies are also referred to as trunking efficiencies.

¹⁹ Because T-Mobile USA's UMTS subscribers have handsets that are incompatible with AT&T's UMTS/HSPA network, channel pooling efficiencies will be realized on the combined companies' UMTS/HSPA networks only as T-Mobile USA's subscribers are migrated to AT&T's network with compatible handsets.

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pooling efficiencies that will allow the combined company to carry more traffic (more calls and more megabytes of data traffic per busy hour) than what the two companies could collectively carry if their GSM networks continued independently.

50. Channel pooling efficiencies apply equally to voice and data service. A modern cellular system more efficiently provides service to a large number of potential users in a cell by sharing a set of lines, or a “pool” of channels, instead of providing them individually. That efficiency-enhancing technique takes advantage of the low probability that all potential users will use the channels in the cell at the same time. Increasing the number of channels in the pool, by combining the separate AT&T and T-Mobile USA GSM channels, decreases the likelihood that a call will be blocked because no channel is available. As a result, “pooling” AT&T’s and T-Mobile USA’s GSM channels increases the number of subscribers that can be accommodated at busy hours and produces substantial capacity gains. Although efficiency gains from the combined pooling of channels will vary by location, our initial analysis indicates that we expect to achieve 10-15% capacity gains in many areas.

51. A useful analogy is to the ticket agent lines at an airport. One line that is served by four ticket agents will provide more prompt and efficient service for customers than two separate lines, where each line is served by two ticket agents and customers cannot change lines. When one line is served by four ticket agents, whenever an agent is available the next customer in line will be served. With two separate lines, if one line is empty and the other is full, the ticket agents serving the empty line are not utilized because the customers cannot change lines. Combining the two lines into a single “channel pool” results in better service to the customers as

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a whole, uses the ticket agents more efficiently, and provides the capacity to serve more customers.

52. There are two aspects of channel pooling efficiencies that may be counterintuitive. First, channel pooling efficiencies are nonlinear capacity gains. They result in capacity greater than merely combining the same amount of total capacity into one network rather than two. In other words, channel pooling efficiencies result in $1+1=3$ capacity gains, achieving more capacity than the sum of the capacities of the two standalone companies. Second, channel pooling efficiencies are independent of, and unaffected by, the load levels on the networks being combined.²⁰ In other words, the channel pooling efficiencies are achieved even if both networks being combined are heavily loaded and appear to have no “spare” capacity. This means that, in markets such as **[Begin Confidential Information]** **[End Confidential Information]** where both companies face capacity challenges, network integration and the resulting channel pooling efficiencies will provide an immediate boost in capacity that will benefit customers of both companies once the networks are integrated.

53. The channel pooling efficiencies from the integration of AT&T’s and T-Mobile USA’s networks will allow the combined company to improve the quality of its network, increase capacity, or realize cost savings as a result of utilizing less resources for the same capacity. In capacity constrained areas, channel pooling efficiencies will result in fewer dropped

²⁰ The variation in the size of the channel pooling efficiencies we expect in different areas is instead a function of the size of the existing channel pools of each company in each area – greater channel pooling gains can typically be achieved when smaller pools are combined than when larger pools are combined.

and blocked calls and other improvements in service for millions of GSM subscribers. In less capacity-constrained areas, channel pooling efficiencies will free up spectrum that can be shifted toward the UMTS network to address capacity challenges there.

D. Utilization Efficiencies

54. In a number of areas in which AT&T faces capacity constraints, like **[Begin Confidential Information]** **[End Confidential Information]**, T-Mobile USA's network (and spectrum) are less heavily loaded. In **[Begin Confidential Information]**

[End Confidential Information], T-Mobile USA's GSM network is more heavily loaded than AT&T's GSM network. Consequently, each company has pockets of excess capacity that can be used to carry traffic more efficiently and to address congestion on the other company's network in specific areas. The transaction will thus provide substantial utilization efficiencies very rapidly upon integration of the GSM networks (improving GSM performance and freeing up yet more spectrum for UMTS) and over the longer term as UMTS resources are integrated and customers ultimately migrate to LTE.

55. To better understand these utilization efficiencies, imagine that the two GSM networks in a given market are two water bottles of identical size, each representing a block of spectrum capacity. The first is filled 80% with water (representing heavy usage) while the second is only 10% filled (representing light usage). One network integration option would be to pour all the water from the second bottle into the first bottle, which would then be 90% full and would continue to operate to serve the combined company's GSM subscribers. The second bottle would then be empty and would become substantially larger when re-purposed for more efficient UMTS technology. The integrated network could therefore carry much more traffic,

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address UMTS capacity challenges, and move out the UMTS spectrum exhaust date. The transaction will give the company the flexibility to optimize spectrum usage at the local level, while both maintaining service quality for existing GSM subscribers and repurposing underutilized spectrum from GSM to UMTS.

56. Similarly, the transaction will enable the combined company to re-purpose T-Mobile USA's AWS spectrum currently devoted to UMTS for more spectrally efficient LTE service. Over time, and at a rate that will vary market by market, AT&T will migrate T-Mobile USA's subscribers either to the integrated UMTS network or its LTE network. As this migration occurs and more AWS spectrum is cleared, AT&T will be able to use it for LTE. In some areas, like **[Begin Confidential Information]** **[End Confidential Information]**, T-Mobile USA holds AWS spectrum that it has not deployed for UMTS service, which the combined company can re-purpose for LTE without having to migrate subscribers.

E. Immediate Coverage Improvements

57. As noted above, the majority of T-Mobile USA's GSM subscribers have handsets that will work on AT&T's GSM network. Immediately after closing, and even before the two networks are fully integrated, we expect T-Mobile USA subscribers in certain areas will be able to benefit from having access to both networks. In these areas, access to AT&T's GSM network, including its low band 850 MHz cellular spectrum, will provide T-Mobile USA subscribers with improved coverage, including superior in-building service and coverage compared to T-Mobile USA's existing GSM network. Additional gains also can be expected by deploying 850 MHz spectrum to the complementary T-Mobile USA sites on the integrated network grid. In addition,

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we expect there may be areas where AT&T's GSM customers will immediately benefit from additional capacity afforded by T-Mobile USA's GSM network.

58. Moreover, as T-Mobile USA's UMTS subscribers migrate to the AT&T network, they will gain broader on-net UMTS coverage, including more than double the geographic UMTS coverage they have today and better in-building coverage as a result of access to low-band 850 MHz cellular spectrum and a higher density cell grid post-integration.

F. Broader LTE Deployment

59. The combined company will provide the approximately 34 million T-Mobile USA subscribers with robust LTE services that T-Mobile USA would not have been able to offer with its existing spectrum holdings. In addition, as a result of the increased spectrum and other benefits resulting from the transaction, AT&T has committed to extend its deployment of LTE service to over 97% of the U.S. population. This means that approximately 55 million more people throughout the country will have access to AT&T's LTE service, including residents of numerous rural and other smaller communities. In fact, a substantial number of the build-outs will be in non-urban areas. Moreover, AT&T will be using the same LTE technology throughout the country, and, subject only to spectrum constraints, LTE subscribers in rural areas and small communities will experience the same benefits as subscribers in urban areas.

60. The transaction will enable AT&T to deploy LTE in areas in which it currently lacks any spectrum to do so and improve LTE service in areas where T-Mobile USA's additional spectrum will enable a more robust deployment than would have been possible without the transaction. AT&T lacks 700 MHz and AWS spectrum with which to launch LTE in approximately **[Begin Confidential Information]** **[End Confidential Information]** CMAs,

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covering about **[Begin Confidential Information]** **[End Confidential Information]** people, and T-Mobile USA holds AWS spectrum in these areas that could be re-purposed to provide LTE service. These markets include **[Begin Confidential Information]**

[End Confidential Information], among others.

Within approximately **[Begin Confidential Information]** **[End Confidential Information]**

additional CMAs, covering nearly **[Begin Confidential Information]** **[End Confidential Information]** people, AT&T holds an average of 10 MHz of AWS or less and/or 12 MHz of 700 MHz spectrum or less. T-Mobile USA's AWS spectrum will provide the combined company with at least an average of 20 MHz of AWS spectrum in each of those CMAs. This will enable a more robust deployment of LTE in such places as **[Begin**

Confidential Information] **[End Confidential**

Information], and other major cities. It also includes rural markets such as **[Begin Confidential**

Information] **[End Confidential**

Information]. Over time, the transaction also will help remedy the LTE capacity shortage we

are anticipating as early as **[Begin Confidential Information]** **[End Confidential**

Information] in such places as **[Begin Confidential Information]**

[End Confidential Information].

G. Overall Improved Service Quality

61. The network integration synergies – a denser network through “instant” cell splitting, the elimination of redundant GSM control channels, channel pooling and utilization efficiencies, re-farming of AWS spectrum to more spectrally efficient LTE, and broader LTE deployment – will result in a combined network with significantly larger capacity than the sum

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of both companies' networks standing alone. AT&T projects, at the time of integration, these significant capacity improvements for the combined networks will be achieved in numerous markets, both large and small, throughout the country. The combined company can use these capacity gains to address the particular needs of each individual market – either by increasing the amount of traffic that can be carried during peak hours on the network without service degradation, improving the quality of service, increasing throughputs, or a combination of one or more of these benefits. In short, these capacity gains will give the combined company the flexibility to service tens of millions of new and existing subscribers more efficiently than either company could do on its own. In many areas, subscribers will experience significant improvements in dropped and blocked call rates, fewer failed or slow downloads and other performance issues.

62. Further, the increased network cell density will allow AT&T to spread traffic across more cell sites, creating a faster and more consistent experience, especially during peak usage times, because each site is carrying less traffic. The integration of T-Mobile USA sites also will help current AT&T cell sites perform better in certain situations. For example, today the performance of AT&T's current cell sites in certain areas may be degraded when mobile devices that are close to the antenna utilize so much power that devices that are farther away or in-building are not able to keep a connection to the cell site. Users in these "far" areas experience degraded service. Adding T-Mobile USA's complementary sites between existing AT&T sites within AT&T's network grid will bring subscribers closer to a cell site, substantially reducing service degradation attributable to this "near-far" problem. **[Begin Confidential**

Information]

[End Confidential Information].

63. In-building coverage will improve for both GSM and UMTS subscribers due to the denser cell grid and the benefits of low-band 850 MHz cellular spectrum. These network efficiencies, along with T-Mobile USA's spectrum holdings, will enable the combined company to deploy sufficient spectrum to accommodate demand and relieve network congestion, as well as migrate customers onto the integrated network. The transaction also gives AT&T the flexibility, depending on the particular characteristics of each market, to migrate T-Mobile USA subscribers to a more spectrally efficient technology over time.

64. The overall impact of the transaction on the combined company's network and capacity will be quite significant. Even with absorbing T-Mobile USA's customer base, the projected efficiency gains will increase capacity and thereby push back the dates of expected spectrum constraints in many markets and enable the combined company to re-purpose spectrum towards more efficient uses while ensuring that subscribers on less advanced technologies continue to receive quality service. It is equally important that the transaction will result in real, tangible benefits to subscribers throughout the country in the form of improved blocked and dropped call rates, consistent quality of service, and improved throughput speeds, among others.

VI. ALTERNATIVES TO THE TRANSACTION ARE NOT ADEQUATE

65. As mentioned above, AT&T invests significant capital and resources to keep pace with increasing demand, including purchasing and leasing spectrum; cell splitting and other means of optimizing the network capacity; deploying indoor and outdoor antenna systems, such as Wi-Fi hotspots and DAS networks; and implementing tiered pricing structures. Going

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forward, these options simply cannot address AT&T's capacity constraints anywhere near as effectively as this transaction.

66. AT&T continually seeks to purchase spectrum to improve coverage and quality in congested markets.²¹ However, there is not sufficient compatible, contiguous spectrum available in the secondary market to address AT&T's spectrum and network capacity constraints. Moreover, additional spectrum from the next FCC auction is not likely to become available for use for many years. Although AT&T holds 700 MHz and AWS spectrum, it cannot deploy these bands to support its GSM and UMTS networks for two reasons. First, AT&T's embedded customer base has handsets that operate on cellular and PCS spectrum and are not operable on AWS or 700 MHz technologies. Second, AT&T is using its AWS and 700 MHz spectrum holdings to deploy a nationwide LTE network, which is the most spectrally efficient way to serve growing demand.

67. AT&T seeks opportunities to expand capacity by adding new sites on an ongoing basis where feasible. AT&T cannot, however, add sites fast enough to meet the projected rate of demand for more capacity, for the reasons described below. This transaction provides an efficient, certain, and near-term solution because it provides at least **[Begin Confidential Information]** **[End Confidential Information]** T-Mobile USA sites that can be integrated, on a rolling basis, over a period of twenty-four months after the transaction's close.

²¹ See Declaration of Rick L. Moore, Senior Vice President of Corporate Development, AT&T Inc., ¶¶ 23-25 (April 20, 2011).

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This represents, on average, more than eight years of new site construction based on AT&T's 2010 build rates.

68. The tremendous cell density improvement that this transaction achieves where and when we need it simply could not be replicated by a new build program. T-Mobile USA's cell sites are the product of many years of intense effort to identify and secure the best cell site locations that would provide the greatest propagation benefits. Many of these cell sites are well located to address our capacity challenges and would provide the combined company with a much more robust platform that will allow us to carry more traffic than the two companies collectively could carry standing alone. Some of T-Mobile USA's well-placed cell sites appear to be in locations where we likely could not replicate them (*e.g.*, because space is unavailable). But even where duplication would be possible (albeit at much greater cost), it could not be accomplished in time to meet customer demand.

69. The construction of new sites requires a cumbersome process that is fraught with complexity and the potential for lengthy delays (*e.g.*, vendor equipment issues, acquisition, zoning, permitting, structural analysis, environmental studies). Among other things, the site-acquisition process involves engineering studies to identify prospective sites, as well as capital and financial analysis to purchase or lease property. Also, there are limits on the locations within the existing network where new sites may be built to address capacity issues. After years of aggressive cell-splitting activities to improve capacity, the search rings for those locations are smaller, and it has become increasingly difficult to find suitable locations.

70. Even after site-acquisition, there may be additional requirements before construction of a new site can actually begin. For example, the National Environmental Policy

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Act requires an extensive study to ensure that a new site will not have an adverse environmental impact.²² In addition, the National Historic Preservation Act requires notice and consultation with state historic preservation officers and representatives of Native American Tribes to guarantee that new sites will not adversely affect properties of historical or cultural significance.²³ The Federal Aviation Administration's regulations also require a determination that new antenna structures will not pose a hazard to navigable airspace.²⁴ Frequently the most significant barriers are state and local permitting and zoning requirements that may delay applications for years. The requirements in many key markets almost always involve substantial delays. In the San Francisco/Bay Area market, for example, it takes AT&T on average **[Begin Confidential Information]** **[End Confidential Information]** to obtain zoning approvals.

71. These delays are not likely to diminish in the near future. To the contrary, many municipalities face growing budget constraints and have reduced resources available to process tower site applications. And with expansion and technology upgrades by virtually all existing wireless providers and ambitious network construction plans by a host of new entrants, local governments are likely to struggle to keep up with demand. At the same time, the pace of cell site builds throughout the industry has limited the pool of available tower climbers and installers

²² National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*

²³ National Historic Preservation Act, 16 U.S.C. § 470f; *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process*, Report and Order, 20 FCC Rcd 1073, ¶¶ 24-28 (2004).

²⁴ FAA Obstruction Evaluation Regulations, 14 C.F.R. § 77.9 (Construction or alteration requiring notice).

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needed to complete the work. This is another gating factor that limits the pace at which builds can be accomplished.

72. Given the complexity and delays inherent in the process, AT&T was only able to complete approximately [Begin Confidential Information] [End Confidential Information] of the [Begin Confidential Information] [End Confidential Information] cell site builds it targeted, budgeted, and pursued for completion in 2010. In the Atlanta metropolitan area, AT&T completed only [Begin Confidential Information] [End Confidential Information] of the site builds that were planned for completion that year. For all of these reasons, it would simply not be possible for us to accomplish [Begin Confidential Information] [End Confidential Information] additional new site builds in the same period of time afforded by this transaction.

73. While we have pursued and will continue to pursue alternative measures for addressing congestion, such as deployment of outdoor DAS networks and Wi-Fi hotspots, these alternatives are high cost and ultimately cannot achieve the same nationwide efficiencies as the merger. These systems are designed to off-load traffic from AT&T's mobile broadband network to relieve congestion and improve voice and data service quality in very small, individual areas like a sports arena or a few city blocks. As such, they are not a viable substitute for the wide area coverage and capacity provided by cell towers. Moreover, in AT&T's experience, Wi-Fi hotspots provide less meaningful capacity relief than macro cell sites. AT&T has deployed 24,000 Wi-Fi hotspots as of the end of 2010, but these do not reduce UMTS traffic over AT&T's network enough to relieve capacity constraints. There are other challenges to utilizing Wi-Fi for additional capacity, including the difficulty in handing off traffic between Wi-Fi and cellular

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networks and getting subscribers to use Wi-Fi when available. DAS networks can provide meaningful traffic off-load, but are only effective in areas with either extremely high user densities, such as convention centers, stadiums, and universities, or coverage for limited geographic areas. An average outdoor DAS network also costs **[Begin Confidential Information]** **[End Confidential Information]** the cost to deploy a cell split with similar capacity, and **[Begin Confidential Information]** **[End Confidential Information]** more than adding a new carrier to existing sites. Moreover, the deployment of DAS networks can be subject to permitting and construction delays similar to cell splits. AT&T has also deployed over **[Begin Confidential Information]** **[End Confidential Information]** femtocells throughout the country, but these are designed to address in-home coverage issues more so than to increase network capacity and, accordingly, do not constitute a workable solution to capacity problems in most cases.

74. In short, combining AT&T's and T-Mobile USA's complementary network technologies, spectrum holdings, and network assets will provide a faster, more permanent, and, above all, more efficient solution to capacity concerns than any of the above alternative methods.

VII. CONCLUSION

75. Because AT&T and T-Mobile USA have complementary wireless technologies, spectrum holdings and network grids, the integration of the two networks provides the most effective, efficient, and immediate solution to the spectrum and capacity challenges that both companies face. The combined company will achieve network efficiencies that will exceed the sum of what the two companies can achieve on their own. Through increased cell density, channel pooling, utilization efficiencies, and the elimination of redundant control channels, the

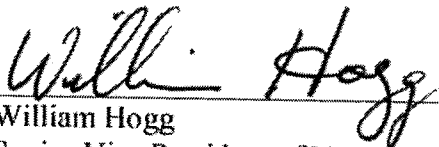
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integration of AT&T's and T-Mobile USA's networks will provide more efficient use of scarce spectrum resources.

76. These efficiencies, along with the spectrum and other resources gained from the transaction, will address the capacity constraints that threaten to degrade the quality of the wireless services that AT&T and T-Mobile USA subscribers receive. Moreover, the transaction will bring LTE to T-Mobile USA subscribers, and the combined company will bring LTE service to approximately 55 million people beyond AT&T's current deployment plans. The transaction's network synergies will improve subscriber experience and services. There will be fewer dropped and blocked calls, better coverage, and a faster and more consistent experience on both voice and data. The transaction presents a unique opportunity to integrate two complementary networks in order to provide the most advanced wireless services sooner and to more Americans than otherwise possible.

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 20, 2011.

Signed:



William Hogg
Senior Vice President of Network Planning
and Engineering
AT&T Services, Inc.

Declaration of Rick L. Moore

**DECLARATION OF RICK L. MOORE
SENIOR VICE PRESIDENT, AT&T INC.**

I, Rick L. Moore, hereby declare the following:

1. My name is Rick L. Moore. I am the Senior Vice President of Corporate Development for AT&T Inc. (“AT&T”) with responsibility for all of AT&T’s strategic initiatives involving mergers, acquisitions, and other significant transactions. For over twenty years I have been involved in the analysis, negotiation, and implementation of numerous transactions on behalf of AT&T (formerly SBC Communications Inc.) and its affiliates. I joined the company in 1976 and held various sales, product marketing, and product management positions before moving to strategic planning and corporate development matters beginning in 1983. I hold a B.S. degree in Economics from Southwest Missouri State University.

2. I am familiar with and participated in the strategic business decisions that led AT&T to pursue the acquisition of T-Mobile USA. I also have reviewed the other declarations filed by AT&T and T-Mobile USA executives in this proceeding and have relied on them in developing this testimony.

3. The purpose of this Declaration is to explain AT&T’s strategic rationale for this transaction, describe how the transaction supports expansion of our 4G Long Term Evolution (“LTE”) mobile broadband coverage to over 97% of Americans and other consumer benefits, and to summarize AT&T’s analysis of the cost savings and other economic synergies from combining the two companies.

I. INTRODUCTION AND EXECUTIVE SUMMARY

4. AT&T’s strategic objective for the acquisition of T-Mobile USA is to enhance our

wireless network in the near term and strengthen our ability to deploy the next generation of mobile broadband services. Such services are a critical component of AT&T's future competitiveness and will benefit America's economic prosperity and international competitiveness. The combination of AT&T and T-Mobile USA will help make these goals a reality in ways that could not occur but for the merger.

5. AT&T's current 4G LTE deployment plan (without T-Mobile USA) would reach approximately 80% of the U.S. population. For its part, T-Mobile USA has stated it has no clear path to deploy LTE.¹ Together, however, we can take advantage of the combined scale, spectrum, and other resources to commit to expanding next-generation LTE technology to over 97% of Americans. This buildout will allow AT&T to bring LTE to approximately 55 million additional Americans, including millions in smaller towns and rural communities.

6. In the near term, AT&T's unique challenge is to maintain a wireless network that keeps pace with the ever increasing traffic demands of our current customers, which have grown by 8,000% over the past four years. This demand is causing spectrum exhaust in certain markets and will continue to grow at a rapid pace in the future. Indeed, AT&T estimates that, by 2015, the amount of mobile data traffic on our network will be eight to ten times what it was in 2010.

7. AT&T has invested and will continue to invest in improving network performance and capacity, adding and optimizing spectrum where available, and pursuing all reasonably available techniques to ensure the best service possible for our customers. However,

¹ See Declaration of Kim Kylesbech Larsen, Senior Vice President, Technology Service and International Network Economics, Deutsche Telekom AG, ¶ 9 (April 19, 2011) ("Larsen Decl.").

the available options to add capacity are high-cost, limited in scope, and interim measures with relatively protracted timelines. Further, it is becoming increasingly difficult to acquire spectrum on the secondary market, especially in metropolitan areas where our exhaust issues are more challenging. The net effect is that, while the wireless industry generally needs more spectrum, AT&T, as an industry leader in smartphone and data-centric device customers, is facing a very specific and immediate spectrum and capacity challenge.

8. This transaction will combine two companies with compatible network technology, infrastructure, and spectrum positions to meet these challenges in a far more efficient and effective way than any other alternative. In large part due to the fact that AT&T and T-Mobile USA use the same network technologies and spectrum in similar bands, and can take advantage of substantial cell site synergies, this combination will allow us to expand capacity, carry more traffic, optimize spectrum usage, and achieve significant cost savings far more quickly than otherwise possible. My colleague Bill Hogg has addressed the network synergies in greater detail, and I will focus on other cost savings and benefits.

9. We have analyzed the synergies expected from this transaction using the same detailed methodology as in prior transactions. Our assessment is that they have a net present value in excess of \$39 billion, with an annual run rate exceeding \$3 billion starting in year three. These savings come primarily from network efficiencies, marketing and support savings, and reduced need in the near term for expenditures on network infrastructure and spectrum.

10. The transaction also will enable AT&T to provide numerous customer benefits. These benefits include improved service in the form of fewer dropped calls and failed connections in the near term, and an extended LTE platform that reaches over 97% of all

Americans, including T-Mobile USA customers, who, as Mr. Larsen explains, would not otherwise have that option.² This robust LTE platform will provide greater spectral efficiencies, increased speed, and reduced latency. T-Mobile USA's customers also will benefit from a broader variety of rate plans, including roll-over minutes, more weekend hours, and a larger free mobile-to-mobile calling community. Finally, AT&T always has been at the forefront of offering the latest and most advanced devices and features, so T-Mobile USA customers will benefit from access to a broader range of cutting-edge devices that use state-of-the-art technology.

11. This declaration will outline in more detail the key expected benefits to consumers that will result from the proposed transaction in addition to network benefits addressed by Bill Hogg. These benefits fall into three broad categories: (i) expanding AT&T's next-generation mobile broadband LTE platform, (ii) improving service quality and making a broader range of services available to customers, and (iii) very significant cost savings that will enhance AT&T's competitiveness and ability to invest in innovative wireless broadband platforms and services. We are particularly confident in our ability to deliver these benefits because AT&T has an experience base and a proven track record from prior transactions for planning and executing successful integrations.

II. THIS TRANSACTION WILL ENABLE EXPANSION OF AT&T'S NEXT GENERATION MOBILE BROADBAND PLATFORM TO OVER 97% OF THE UNITED STATES POPULATION

12. The telecommunications industry is moving into a new era of mobile broadband

² See Larsen Decl. ¶ 9.

growth, and consumers increasingly want to “mobilize everything” – data, video, computing, and business processes and solutions. To facilitate continued mobile broadband growth and usage, AT&T is deploying LTE technology using 700 MHz or AWS spectrum, which will be our most advanced, next-generation network platform. LTE offers significant advantages over GSM and UMTS technologies, as well as HSPA+. For example, as Bill Hogg explains, compared to a HSPA+ network, LTE will provide peak data speeds that are up to four times faster, 30-40% more efficiency in spectrum usage, and reduced latency.³ LTE technology makes it easier for customers to use wireless devices to access a wider range of services and information, from data on their desktops at home and in their offices to state-of-the-art medical and educational resources and more. LTE will promote innovation and investment in the wireless ecosystem, which in turn generates jobs and brings new efficiencies to commerce and daily living, not just in major metropolitan areas but in communities where broadband is not prevalent today. It is because of these enormous benefits that President Obama has made ubiquitous wireless broadband service a national priority, and this transaction will help make that priority a reality.

13. AT&T made a business decision to build out LTE to approximately 80% of the U.S. population on its own. That decision was based in part on the availability of spectrum, the relatively high cost of expanding to more remote locations, and the need to make the required investments to keep up with our current network demands. AT&T analyzes major capital expenditures in light of the availability of capital, the anticipated return on investment, and other

³ See Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services Inc., ¶¶ 24-26 (April 20, 2011) (Hogg Decl.).

typical cost and risk factors.⁴ In light of the business realities concerning the billions of dollars required for this expansion and the challenges we faced with our existing network, our senior management concluded that an 80% build was the limit our company could justify to our shareholders.

14. As we contemplated the combination with T-Mobile USA, we took the opportunity to reconsider that decision in light of several factors. As Bill Hogg explains, T-Mobile USA has spectrum in many areas where we do not have any 700 MHz or AWS spectrum available for LTE.⁵ We also should be able to take advantage of other resources, including T-Mobile USA's existing cell sites and additional engineering resources with expertise in AT&T's technology and architecture. In addition, T-Mobile USA's customer base, when combined with ours, can increase subscriptions for LTE-based services, generating additional revenue to support the return on the capital investment. And with the additional scale from this transaction, and the significant synergies, the combined company will be in a position where the necessary additional capital can be made available for this investment.

15. As a result of these factors, AT&T has concluded that with the T-Mobile USA acquisition we can support expansion of the LTE buildout to cover over 97% of Americans.⁶

⁴ When AT&T looks at the acquisition of a business like T-Mobile USA, the analysis is different than the analysis of making annual capital expenditures. Acquiring a going concern like T-Mobile USA brings spectrum plus immediate revenue and cash flow, as well as network infrastructure and near term synergies that are not present in a spectrum purchase or tower build. The return on investment analysis therefore is entirely different, and the two types of investments are not directly comparable.

⁵ See Hogg Decl. ¶ 59-60.

⁶ See *id.* ¶ 14.

This expansion from 80% to more than 97% of Americans will allow AT&T to provide next-generation mobile broadband to approximately 55 million additional people.

16. Expanding LTE coverage will benefit customers by unleashing the power of advanced mobile broadband to more Americans, consumers and businesses (both big and small), located in large cities and rural communities. As described by AT&T's Chief Technology Officer John Donovan in his declaration, mobile broadband is already enabling innovation in mobile business solutions, telemedicine, distance learning, emergency services, teleworking, and other areas.⁷ These services support the economy of the future, and this transaction will enhance AT&T's ability to bring them to nearly every American community.

III. THIS TRANSACTION WILL EXPAND AT&T'S NETWORK CAPACITY TO ACCOMMODATE EXPLOSIVE GROWTH IN DEMAND

A. AT&T's Spectrum Challenge

17. For years, AT&T has been at the forefront of the unprecedented growth in mobile broadband innovation and usage. AT&T leads all other U.S. providers in smartphone penetration, with approximately 31 million subscribers owning smartphones as of first quarter 2011. AT&T has helped take broadband out of the workplace and the home and literally put it in the hands of millions of Americans on the move. These advances have made the United States the global leader in mobile broadband connections and smartphone sales.

18. This leadership and success has come at a price for AT&T. The combination of factors such as our leading smartphone penetration, the rapid adoption of tablets and other

⁷ See Declaration of John Donovan, Chief Technology Officer, AT&T Inc., ¶ 29 (April 20, 2011) ("Donovan Decl.").

connected devices, and enhanced access to more and better content (apps, video, etc.) has created extraordinary demands on AT&T's network. From 2007 to 2010, AT&T's mobile data traffic has increased by 8,000%, and by 2015, we expect our mobile data traffic will be eight to ten times what it was in 2010. To help put this explosive growth in context, *AT&T will carry as much mobile data traffic in the first 6 to 7 weeks of 2015 as we carried for the entire year in 2010.* The net effect is that, while the wireless industry generally needs more spectrum, AT&T is facing an immediate challenge.

19. The overarching reality for AT&T is that we need significantly more spectrum in the near future in order to continue to provide our customers with high quality voice and data services, as well as even more innovative services going forward, and our customers cannot wait until substantial amounts of new spectrum become available via FCC auctions several years from now. The benefits to consumers of resolving our spectrum exhaust issues are substantial, including fewer dropped calls and connections, greater data throughput, and a higher quality platform that will support more innovation (by AT&T and others) in services, devices and applications.

20. T-Mobile USA also faces spectrum constraints. As the accompanying declaration of Kim Larsen explains, T-Mobile USA also has experienced rapid increases in demand. T-Mobile USA's PCS spectrum is dedicated to support GSM subscribers for many years to come, and its available AWS spectrum is deployed for HSPA+ service. Thus, as Mr. Larsen explains, T-Mobile USA has no clear path to being able to offer LTE.⁸

⁸ See Larsen Decl. ¶¶ 9, 11-12.

B. Alternatives Are Ineffective and Inefficient

21. AT&T has been working hard to address our spectrum challenges for quite a while. As explained below, we are continually deploying targeted solutions to address network performance issues (trying to wring more capacity out of our existing resources), and looking for even small amounts of spectrum to acquire. These measures are increasingly difficult and expensive to implement and are not sufficiently effective by themselves to satisfy the expected future demands of our customers.

22. AT&T has considered numerous alternatives to achieve our mobile broadband objectives, but none provides the same speed and certainty of execution, or cost effectiveness, as this transaction. First and foremost, while we are always looking for potential spectrum purchases, there are no viable alternatives that compare to the present transaction. Significant quantities of spectrum across the country held by third parties either are not available for acquisition at suitable cost (or any cost), or do not provide anywhere near the same level of efficiency or benefits because they are in spectrum bands that AT&T does not currently use and therefore would pose significant operational challenges.

23. In addition, we have considered the future availability of additional broadcast spectrum (UHF), as well as the auction of additional AWS spectrum. Although both might be viable options in the long term, neither option will help meet our shorter term needs. The timing for those auctions is uncertain at this time. Further, even after that spectrum becomes available, our experience is that with our best efforts it takes many years to clear the spectrum (if required) and configure it for use, as well as to work with equipment manufacturers to develop standards, and then have the equipment tested and ultimately deployed. For example, we estimate that it

could take as long as 5 to 10 years before additional UHF spectrum is available for use. While the availability of new spectrum at some point in the future will help AT&T and the industry as a whole, we need the spectrum sooner to continue to maintain the quality of service our customers expect and to support growth and innovation in the mobile broadband space.

24. Further, AT&T is continually in the market to purchase available spectrum to meet localized needs. To the extent available, we have made small acquisitions in local areas. While these spectrum acquisitions mitigate our spectrum constraints to some extent in specific geographic areas, this patchwork approach of adding small swaths of spectrum in local areas does not alleviate AT&T's overriding need for more spectrum on a broader basis in the near future.

25. Moreover, our pending purchase of Lower 700 MHz D and E block spectrum from QUALCOMM does not completely provide the answer. As explained in the declaration of Kristin Rinne submitted in that proceeding,⁹ that spectrum is "unpaired" and therefore does not provide near term capacity. AT&T plans to use supplemental downlink technology to repurpose this spectrum for LTE. That will require modification of the LTE standards, which is currently in process, and the development, testing, and commercial availability of equipment that uses the supplemental downlink technology. As a result, that spectrum, while valuable in the long term, will likely become available for use in 2014 at the earliest. Once deployed, it will provide additional downlink capacity for anticipated increased demand as LTE is deployed and usage

⁹ In re: AT&T Mobility and Qualcomm Incorporated Consent to the Assignment of Lower 700 MHz Band Licenses, WT Docket No. 11-18, Declaration of Kristin Rinne (filed January 13, 2011).

increases, but it will not address the demands of our customers in the near term.

26. We are also constantly looking at ways to utilize our existing spectrum more efficiently. As Bill Hogg explains, we are using every reasonably available technique to squeeze more capacity out of our existing spectrum. Currently, we are increasing cell-site density, offloading via Wi-Fi and distributed antenna systems, and implementing tiered data pricing.¹⁰ But, given the explosive growth in data traffic, many of these measures come at a relatively high cost, and none of them is an effective solution to the broader and growing capacity challenges we face.¹¹

27. This transaction by contrast is a unique opportunity to address these issues more efficiently and effectively than either company could do independently or through a different transaction. AT&T and T-Mobile USA have compatible networks based on GSM, UMTS and HSPA+ technology platforms, which means we can rapidly achieve great efficiencies and expand capacity by integrating the networks. AT&T and T-Mobile USA both operate GSM networks at 1900 MHz today, which can easily be combined, and both have AWS spectrum that can be readily optimized to support the deployment of LTE. And the two companies individually have deployed cell sites in locations that create unique synergies and will allow the combined company to quickly expand capacity through cell splits. Put simply, as explained by Bill Hogg, this combination will allow us to create more capacity sooner and in a more cost-effective manner than any other alternative solution to our spectrum and capacity needs, so that together we can carry more traffic for more customers than the sum of the two networks operated

¹⁰ See Hogg Decl. ¶¶ 8, 31-35.

¹¹ See Hogg Decl. ¶ 9.

separately.¹²

IV. THE TRANSACTION WILL BRING IMPROVED SERVICE QUALITY AND MAKE AVAILABLE A BROADER RANGE OF PRODUCTS AND SERVICES THAT COULD NOT OTHERWISE OCCUR

28. The combination of AT&T and T-Mobile USA will provide T-Mobile USA wireless customers a variety of innovative products and services above and beyond what T-Mobile USA can offer on its own. As described above, one of the most significant benefits to both companies' customers will come from increasing the capacity and performance of the network and expanding the LTE buildout to reach many more customers and geographic areas than could occur without the transaction.

29. In addition, AT&T has been a leader in providing access to the latest and most advanced devices and services. AT&T has led the smartphone and tablet revolution and we will continue to do so. T-Mobile USA customers will gain access not only to the devices available to AT&T customers today, but to the next generation of devices that are just around the corner.

30. Another benefit resulting from the transaction will be the enhanced diversity of rate plans available to T-Mobile USA customers. Consumers who are happy with their T-Mobile USA rate plans will be able to keep them, so they will enjoy the benefits of improved customer experience without losing the rate plan of their choice. However, those who prefer to consider other options will have access to a broader selection of rate plans. Some examples available through AT&T that are not currently available through T-Mobile USA include basic/senior plans available to consumers 65 years and older, individual entry level plans starting as low as 200

¹² See Hogg Decl. §§ V and VI.

minutes of use per month, expanded weekend hours, and rollover minutes. In addition, they will benefit from an expanded free mobile-to-mobile calling community.

31. AT&T also operates the nation's largest Wi-Fi network of any U.S. provider. This network is available for free to qualifying AT&T smartphone customers. Through this transaction this same opportunity to access this expanded broadband network will be available to many T-Mobile USA customers.

V. THIS TRANSACTION WILL RESULT IN SUBSTANTIAL COST SAVINGS IN ADDITION TO THE BENEFITS TO CONSUMERS DESCRIBED ABOVE

32. The combination of AT&T and T-Mobile USA will provide very significant cost saving opportunities to drive efficiencies and enhance AT&T's competitiveness. The value of the synergies is expected to exceed the purchase price of \$39 billion, with an annual run rate in excess of \$3 billion achieved during year three and continuing beyond. AT&T not only has the experience base from prior acquisitions, but also has a proven track record of successful integrations in which we have achieved these types of synergies.

33. To calculate the value of the expected synergies in this transaction, AT&T used the same approach it used in prior transactions by building a pro forma view of how the integrated company would look and operate. We utilized standard discounted cash flow methodology typically used by AT&T and many other companies to calculate the net present value of synergies. The inputs for this process included numerous consultations with subject matter experts in operating units such as sales and marketing, finance, and network planning and engineering to obtain informed views about key parameters, and then to test and validate our assumptions. Our methodology also was informed by our past experience from other

transactions and integration efforts. These and other inputs were all factored into our methodology to calculate the expected synergies in the categories described below.

34. Significant cost savings are expected from combining the networks. Many of the T-Mobile USA cell sites will be rapidly integrated into our network as “instant cell splits” to increase capacity, as explained by Bill Hogg, while other sites (either T-Mobile USA’s or AT&T’s) can be decommissioned without affecting network performance. Thousands of sites will be phased out over several years as we integrate the combined network, resulting in very substantial cost savings, including the elimination of lease, utility, maintenance, and other site-related expenses. In other locations, AT&T will be able to reuse radios and other equipment from decommissioned sites to enhance network coverage and performance, resulting in additional savings. There will also be savings from a reduction in interconnection and toll expenses as a result of switching to existing AT&T facilities where possible for transport. We estimate that these and other network synergies have an NPV in excess of \$10 billion.

35. The transaction is expected to also reduce costs to acquire customers. For example, as we transition away from the T-Mobile brand name, we will optimize the distribution network to both enhance retail coverage and customer service while eliminating significant cost. We also will be able to maximize the effectiveness of our advertising and marketing spend. And there will be a decrease in customer equipment cost for the combined entity due to increased volume purchases. These and other subscriber-related synergies also have an estimated NPV in excess of \$10 billion.

36. In addition, the combined company will be able to re-allocate capital expenditures that the individual companies would have been required to make over the next few years to

attempt to address some of their respective coverage and capacity issues. These include capital to acquire spectrum and build out infrastructure. Because of the efficiencies involved in combining the two networks, this transaction will free up capital that can be redeployed in network investments in ways that will make AT&T more innovative and competitive. We will also save costs on network infrastructure and equipment purchases, as our experience is that we can achieve better volume discounts from suppliers when purchasing on a larger scale. Additionally we will be able to redeploy equipment from sites that are shut down to sites in need. The wireless telecommunications business is a very high-fixed-cost business, and the transaction will enable us to reduce our fixed-costs per unit. The combined capital expenditure savings, including costs that would have been spent on spectrum acquisition, have an estimated NPV in excess of \$10 billion.

37. In addition, there are substantial synergy opportunities in the area of customer support and general and administrative costs. These include cost savings that will result from combining and optimizing customer support functions, including call center and billing operations, while maintaining a high level of support (overall we expect most force reductions will occur from natural attrition). There will also be cost savings from removing redundancy in corporate and overhead functions. We estimate the NPV for this category of synergies is also in excess of \$10 billion.

38. AT&T has a history of successfully integrating complex, value-creating acquisitions. Since 2004, we have integrated three wireless companies and two

wireline/broadband companies.¹³ In prior acquisitions we not only gained experience in how to successfully integrate operations, we met or exceeded key targets for synergies and cost savings, and delivered significant customer benefits.

39. Cingular's acquisition of AT&T Wireless in 2004 is a prime example of our ability to execute on synergy plans. Within two years of the AT&T Wireless acquisition, most of the integration work was complete and merger synergies were being realized. By 2006, we dramatically expanded our 3G footprint and launched several new devices and products on our 3G network. Some key accomplishments were expanding 3G coverage to 165 cities and over 120 million people; launching Cingular Music; and releasing several innovative products like the Nokia E62 with a large selection of email clients, embedded 3G modems in laptops, and Tele NAV GPS Navigator, our first commercial location-based services application. After the acquisition, we improved Cingular's customer retention and at the same time achieved lower operating expenses associated with sales, customer care, certain network costs, and general and administrative functions. Additionally, within three years of the acquisition we were able to outperform our own integration plans in key areas such as IT and billing, sales, and marketing as a result of efficiencies associated with the acquisition.

40. Another example of AT&T's ability to successfully execute merger integrations is the combination of SBC and AT&T Corp. In January 2005, SBC estimated that the net present value of merger synergies from that transaction would be \$15 billion. One year later, our

¹³ These include Cingular's acquisition of AT&T Wireless, SBC's merger with AT&T, AT&T's merger with BellSouth, and AT&T's acquisitions of Dobson Cellular and Centennial Communications.

successful experience led us to increase the synergy forecast to approximately \$18 billion. From 2006 through 2008, actual synergy savings exceeded expectations in a variety of areas including network planning and engineering, international terminating access, information technology, and procurement.

41. AT&T again demonstrated its ability to effectively implement merger integrations when it acquired BellSouth. At the time of the acquisition, AT&T predicted substantial savings and we exceeded expectations in a variety of areas. In 2007 and 2008, we exceeded our synergy expectations each year in categories such as network planning and engineering, information technology, and procurement.

42. In addition to our experience and success in integration related to specific transactions, AT&T has other experience to bring to bear. In 2008 AT&T launched a company-wide initiative to identify and realize synergies across the company, including all of our major acquisitions. Our objective has been to drive substantial benefits by delivering cost savings and improving quality of operations, customer experience, and customer service across all business units. One example was to create a national network organization by combining our Chief Technology Officer organization, global network operations, local network services, and our mobility network. The purpose was to improve capital efficiency by evaluating opportunities at a national level; improve mobile network design by creating national standards, resulting in capital savings, better coverage, and reduced churn; and joint management of civil engineering and construction outsourcing to reduce capital spend. This holistic approach has been a tremendous success. We have realized ongoing synergies of more than a billion dollars through our efforts of continuous improvement in the operation of the assets we have acquired through

mergers over the years. The insights we have acquired through such prior merger integration efforts will be applied to the integration of T-Mobile USA's operations.

VI. U.S.-OWNED AND UNIONIZED

43. Finally, the transaction will bring a foreign-owned U.S. telecom company under U.S. ownership. AT&T is also the largest private-sector employer of full-time union labor. Throughout each of our prior integrations, AT&T has provided good paying jobs with good benefits and respected the rights of workers by remaining neutral and allowing them the choice of union representation. AT&T is committed to investing in our employees so they can help us deliver the benefits of this transaction to our customers.

VII. CONCLUSION

44. In sum, AT&T's acquisition of T-Mobile USA will result in numerous benefits for our customers. These include expanded LTE coverage from 80% to over 97% of Americans, improved voice and data service, a broader range of services becoming available to T-Mobile USA's customers, and substantial operating cost savings and other synergies. These benefits will not only make AT&T more competitive but will benefit our customers with improved service and expansion of next generation mobile broadband service.

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 20, 2011.

Signed:

A handwritten signature in black ink, appearing to read 'RLM', written over a horizontal line.

Rick L. Moore
Senior Vice President
AT&T Inc.

Declaration of Thorsten Langheim

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DECLARATION OF THORSTEN LANGHEIM

**Senior Vice President
Mergers & Acquisitions**

DEUTSCHE TELEKOM AG

I, Thorsten Langheim, hereby declare the following:

1. My name is Thorsten Langheim. I am Senior Vice President Mergers & Acquisitions of Deutsche Telekom AG (“Deutsche Telekom”) and have held this position since November 2009. I have been with Deutsche Telekom since November 2009. My responsibilities with Deutsche Telekom are the groups’ M&A activities. As such, I have a strong working knowledge of Deutsche Telekom’s operations.
2. I hold a Master of Science degree in International Securities, Investment and Banking from the ICMA Centre for Education and Research in London. I have a Bachelor degree in European Finance and Accounting from the University in Bremen (Germany) and Leeds Business School (United Kingdom). Prior to my position at Deutsche Telekom, I was Managing Director at Blackstone’s Private Equity Group, based in London and New York from 2004 - 2009, focusing on private equity investments in Germany. Before joining Blackstone in 2004, I was Vice President and member of the European M&A Execution Group in London and New York at J. P. Morgan from 1999 - 2004. I started my career in 1995 in the finance industry as an assistant director at West LB where I was involved in German M&A coverage and execution.
3. The purpose of this declaration is to describe the significant business reasons that drove Deutsche Telekom to enter into an agreement whereby AT&T Inc. (“AT&T”) will acquire T-Mobile USA, Inc. (“T-Mobile USA”) from Deutsche Telekom. Specifically,

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focusing on the U.S. impact first, this declaration will show that the transaction will: (i) address T-Mobile USA's long term challenges, including the lack of a clear path to deploying LTE, the need for access to significant investment capital, and the need for substantial amounts of new radio spectrum; (ii) benefit T-Mobile USA's customers through access to a high quality network, improved coverage, and access to AT&T's portfolio of devices and innovative services; and (iii) advance the universal broadband deployment goals of the Obama Administration and the FCC's National Broadband Plan by providing LTE to over 97% of the U.S. population. In sum, the transaction will advance Deutsche Telekom's global business strategy to address struggling assets, like T-Mobile USA, and provide the resources necessary to modernize and upgrade Deutsche Telekom's core businesses in Europe, while retaining a sound investment in the U.S. wireless business through its stake in AT&T.

THE TRANSACTION WILL ADVANCE DEUTSCHE TELECOM'S BUSINESS STRATEGY TO MODERNIZE AND UPGRADE ITS CORE BUSINESSES IN EUROPE, WHILE RETAINING A SOUND INVESTMENT IN THE FAST-GROWING U.S. WIRELESS MARKET

4. The transaction will allow Deutsche Telekom to advance its business strategy to "fix, transform and innovate." The goal of the "fix, transform and innovate" strategy is to expand the company's important core business of providing fast network access by adding a broad portfolio of IT and Internet services. The "fix" element of the strategy involves reviewing our mobile-centric assets and determining the steps needed to deliver the highest levels of value to our shareholders and performance for our customers. This review has included all of Deutsche Telekom's properties. As discussed herein, review of T-Mobile USA identified a number of significant challenges. Addressing these challenges through the proposed transaction, along with Deutsche Telekom's other

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initiatives in the United Kingdom and Poland, will largely complete the “fix” component of the strategy.

5. The transaction will also provide the resources necessary to materially advance the “transform” and “innovate” components of Deutsche Telekom’s strategy. The “transform” aspect refers to taking advantage of Deutsche Telekom’s integrated fixed and mobile assets and building fast and highly efficient networks. The “innovate” aspect refers to supporting Deutsche Telekom’s vision of a connected life for consumers and businesses incorporating unique information and communication technology solutions. Deutsche Telekom will receive \$39 billion for the sale of T-Mobile USA. \$25 billion of the sale price will be in cash and \$14 billion will be in AT&T shares (AT&T has the right to increase the portion of the purchase price paid in cash by up to \$4.2 billion with a corresponding reduction in the stock component).

6. The capital infusion resulting from the proposed transaction will substantially de-risk Deutsche Telekom by reducing the company’s debt and investment obligations. Using the cash proceeds from the transaction, Deutsche Telekom plans to reduce its debt by approximately €13 billion after closing, thereby saving the company significant costs via the reduced debt level. Further, the cash proceeds enhance Deutsche Telekom’s credit profile and financing capabilities. Overall, the transaction will enable Deutsche Telekom to strengthen its balance sheet. Deutsche Telekom’s total net debt/adjusted EBITDA ratio will decrease from 2.2x to 1.9x, and the total net debt will decrease from €42.3 billion to €29.2 billion—a reduction of 31 percent.

7. These material improvements in Deutsche Telekom’s balance sheet resulting from the proposed transaction will accelerate Deutsche Telekom’s ability to transform the

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company by modernizing and upgrading its networks in Deutsche Telekom's core businesses in Europe. Moreover, it will facilitate innovation and enable Deutsche Telekom to focus on the opportunities of a modern infrastructure for new Internet products and services in Germany and Europe. And it will achieve these benefits while enabling Deutsche Telekom's participation—through its anticipated 8% stake in AT&T—in a promising competitor in the U.S. wireless market.

8. As a shareholder of AT&T after the transaction, Deutsche Telekom will be able to continue to have an interest in the United States wireless business and will significantly benefit from AT&T's strong dividend as well as have a seat on the Board. As noted above, Deutsche Telekom will take an interest in AT&T of up to 8 percent, based on current stock price, and will acquire a seat on AT&T's Board of Directors, thus becoming a significant shareholder in a leading U.S. telecommunications company. As a key minority shareholder, Deutsche Telekom will participate in the substantial synergies (as detailed in the Public Interest Statement) and will be able to continue to take part in the U.S. wireless business.

9. Deutsche Telekom's stake in AT&T will also result in a significant annual dividend. Although AT&T has made no commitment to any type of dividend, AT&T has paid a dividend every quarter for 105 quarters and has increased its regular quarterly dividend every year since 1984.

THE TRANSACTION WILL ADDRESS SIGNIFICANT CHALLENGES FACED BY T-MOBILE USA

10. Deutsche Telekom's review of T-Mobile USA as an element of its "fix" strategy identified a number of challenges. The objective of this review was to identify the steps needed for T-Mobile USA to deliver the highest levels of value and performance,

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meaning robustly competing in the U.S. wireless business as measured by growing subscribers and market share, and fully exploiting new revenue opportunities through the deployment of innovative products and services over world class networks. T-Mobile USA faces significant challenges in achieving this vision.

11. T-Mobile USA has been struggling to remain a strong competitor in the wireless marketplace. Despite marketing efforts to improve its standing, T-Mobile USA has steadily lost market share—both nationally and across major markets—over the past two years. The U.S. is an extremely competitive market and T-Mobile USA has struggled to compete with both larger competitors such as Verizon, AT&T and Sprint, aggressively growing competitors such as MetroPCS and Leap, as well as a whole host of mobile virtual network operators (“MVNOs”) popular with consumers. While other competitors are quickly moving to build out and develop their LTE networks, T-Mobile USA lacks a clear path to deployment of LTE that is necessary for it to compete robustly in the U.S. longer term. Exponentially increasing demands for bandwidth to meet the demands of T-Mobile USA’s growing number of smartphone and Internet capable device users will require movement to LTE if T-Mobile USA is to remain competitive.

12. Unlike its competitors, however, T-Mobile USA does not have access to the spectrum needed to deploy LTE in an economically and technically sustainable fashion. T-Mobile USA has already dedicated its existing spectrum resources to GSM and HSPA+, which are less spectrally efficient than LTE. Moreover, despite intensive efforts to maximize use of T-Mobile USA’s existing frequencies, the company is facing spectrum constraints in a number of important local markets.¹

¹ See Larsen Declaration at ¶ 18.

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13. T-Mobile USA has explored every available option for accessing new spectrum, including active participation in the FCC’s ongoing efforts to identify new spectrum to be made available for wireless broadband. However, it is not anticipated that significant new spectrum will be auctioned in the timeframe necessary to align with T-Mobile USA’s spectrum needs, and there is no certainty that T-Mobile USA would be the prevailing bidder in any future auction.

14. In addition, remaining a competitive force in the wireless marketplace and offering its customers fast and efficient services, including through LTE deployment, will require a very significant capital investment in both spectrum and infrastructure—approximately **[Begin Confidential Information]** **[End Confidential Information]**. The required substantial investments in LTE in the United States would significantly stretch Deutsche Telekom’s financial capability or, alternatively, force Deutsche Telekom to reallocate investments from our core Europe operations into T-Mobile USA, which has been shrinking for the last two years and which is lacking a clear path towards LTE to stay competitive. Because Deutsche Telekom’s financial priorities must be focused on Europe, however, Deutsche Telekom’s CEO Rene Obermann has stated publicly that T-Mobile USA “has to develop into a self-funding platform that is able to fund its future itself.” This means that T-Mobile USA would need to fund spectrum acquisitions and other necessary capital investments through its own operations rather than by drawing on the resources of its corporate parent. To this end, T-Mobile USA has been exploring a number of strategic options, including partnerships, joint ventures and network sharing arrangements, as well as the sale of non-core, non-strategic assets. These alternatives in general were found not to be economically viable, and none

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could provide as much in terms of synergies and consumer benefits as the transaction with AT&T.

15. The proposed transaction with AT&T addresses all of these challenges facing T-Mobile USA far better than any of the alternatives available. Because AT&T and T-Mobile USA both use GSM/HSPA+ technologies and have complementary networks and spectrum holdings, the combined company will be in a position to take advantage of substantial spectrum and network efficiencies from the transaction that will allow it to improve coverage and service (these substantial efficiencies are described more fully in the declarations of Messers. Larsen and Hogg). Moreover, the combined company will also have access to the capital resources necessary to fund such LTE deployment (as explained in the declaration of Mr. Moore).² Addressing these challenges will position the merged firm to robustly compete in the U.S. wireless business.

THE TRANSACTION PROVIDES BENEFITS FOR T-MOBILE USA CUSTOMERS AND U.S. CONSUMERS BEYOND WHAT DEUTSCHE TELEKOM COULD PROVIDE ON A STAND ALONE BASIS.

16. T-Mobile USA customers and American consumers generally will gain meaningful benefits from the transaction, benefits which Deutsche Telekom would not be able to provide. Not only will T-Mobile USA customers quickly enjoy an enhanced customer experience with improved coverage and service, particularly in rural areas and in buildings³, but the transaction will also allow for the roll-out of LTE coverage to over

² See Moore Declaration at ¶ 14.

³ See Larsen Declaration at ¶ 9; Hogg Declaration at ¶ 58.

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97% of Americans. In addition, upon closing, T-Mobile USA customers will have access to an expanded array of wireless devices.⁴

17. Longer term, the transaction will result in greater capacity and output than the sum of what AT&T and T-Mobile USA could provide with separate networks, allowing the combined company to meet consumers' growing demand for high bandwidth mobile services, to improve quality of service, and to help drive growth and investment in United States mobile broadband networks. The ability to expand LTE to over 97% of the American population is consistent with the announced objectives of the United States Government. Indeed, the combined AT&T/T-Mobile USA will be capable of delivering robust mobile voice and broadband data services to many parts of rural America that would otherwise lack access to such services.

CONCLUSION

18. Deutsche Telekom's sale of T-Mobile USA to AT&T advances Deutsche Telekom's business strategy to address its struggling assets, like T-Mobile USA, provides the resources necessary to modernize and upgrade Deutsche Telekom's core businesses in Europe, and allows Deutsche Telekom to retain a sound investment in the fast-growing U.S. wireless business through its stake in AT&T. It also directly addresses T-Mobile USA's long term challenges, including the lack of a clear path to deploying LTE, the need for access to significant investment capital, and the need for substantial amounts of new radio spectrum. The transaction will additionally benefit T-Mobile USA's customers through access to a high quality network, improved coverage, and access to AT&T's portfolio of devices and innovative services. Finally, the transaction will

⁴ See Moore Declaration at ¶ 29.

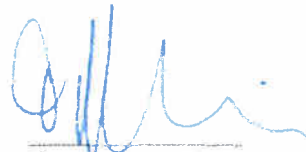
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advance the universal broadband deployment goals of the Obama Administration and the FCC's National Broadband Plan by expanding LTE to over 97% of the U.S. population.

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I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed on April 20, 2011.

Signed:



Thorsten Langheim
Senior Vice President
Mergers & Acquisitions
Deutsche Telekom AG

Dated: April 20, 2011

Declaration of Kim Kylesbech Larsen

**DECLARATION OF DR. KIM KYLLESBECH LARSEN
Senior Vice President, Deutsche Telekom AG**

I, Kim Larsen, hereby declare the following:

I. BIOGRAPHICAL INFORMATION

1. I am the Senior Vice President, Technology Service and International Network Economics of Deutsche Telekom AG (“DT”) and am responsible for International Network Economics, a department that I founded within T-Mobile International in 2003. This area of responsibility includes techno-economical modeling, applied data mining, technology strategy and technology-related business development. My team’s techno-economical models, optimization and analyses support the DT group’s capital planning, strategic thinking and business development. I have an advisory role towards Deutsche Telekom executives on techno-economics topics including acquisition and mergers, spectrum economics, capex and technology cost structures, etc.

2. My professional experience includes DT’s acquisition and merger of Tele.ring in Austria (group responsible for technology due diligence and benefit analysis). I was also the technology lead on: (a) T-Mobile’s acquisition and merger of Orange Netherlands in The Netherlands and the technology post-merger integration of Orange Netherlands with T-Mobile Netherlands and (b) the joint venture (network sharing deal) between Orange UK and T-Mobile UK. I was the DT executive responsible for the business modeling and network design and planning including purchasing strategy and numerous other key strategic business development projects. I am also a Board member in Airway International, a Chinese broadband company. Moreover, I have been providing detailed DT group guidance of mobile capex demand and mobile technology cost structure for the annual budget process, using my own developed capex

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demand model considering all relevant market, strategic, traffic and technology drivers. In addition, I have developed several advanced traffic engineering models being used by the DT group to understand the impact of mobile broadband and smartphone uptake in the mobile network for HSPA and LTE.

3. Prior to my current role, I was responsible for designing, planning and building the T-Mobile NL (*i.e.*, former Ben BV) mobile transport, core and value added service networks. During this period, I developed the UMTS technical business model for evaluating and supporting the 3G license bid. I hold a Ph.D, degree in Physics from Aarhus University, Denmark and a Masters degree in Physics and Mathematics, also from Aarhus University. After my Ph.D., degree I carried out fundamental and applied physics research at various research organizations in Europe. During my academic career, I have written and contributed to more than 40 scientific papers published in academically recognized journals.

II. INTRODUCTION AND SUMMARY

4. I have reviewed the Declaration of William Hogg (“Hogg Declaration”).

5. Specifically, I have reviewed Section III in the Hogg Declaration. I concur with his description of the evolution of wireless technologies and the challenges posed to wireless providers in the United States.

6. Additionally, I have reviewed the technical assertions made in Section V in the Hogg Declaration concerning efficiencies gained through the combination of AT&T and T-Mobile USA (“T-Mobile USA”) and concur with those findings. There should be significant efficiency gains from merging the two GSM-based networks.

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7. One way in which the networks should experience gains in efficiency is from the elimination of redundant GSM control channels. I concur with the estimates made in the Hogg Declaration that 4.8 to 10 MHz of spectrum (20% efficiency gain) will be freed up from control channel efficiency gains. Another source of efficiencies is the complementary infrastructure grids of both companies. This will allow for rapid site sharing and cell splitting that will expand capacity and improve service quality for both customer bases.

8. In most markets, the GSM quality (for T-Mobile USA and AT&T customer bases) should improve by providing more effective spectral capacity due to channel pooling efficiency gains and increased cell site density (*i.e.*, as described in the Hogg Declaration). Furthermore, on average there will be more spectrum available for voice and data usage, due to the described efficiency gains, which will reduce traffic load and improve quality.¹ In top markets, the quality gain in call drop and call setup success rates should be significant.

9. In sum, I believe there will be substantial benefits for all subscribers (T-Mobile USA as well as AT&T) resulting from the transaction, including higher GSM quality and greater spectrum capacity available for HSPA+ and/or LTE, thus boosting mobile voice and data quality. T-Mobile USA has no clear path to LTE without this transaction and so T-Mobile USA customers will benefit from the availability of LTE. Aggressive re-farming of existing spectrum, if possible, **[Begin Confidential Information]**

[End Confidential

Information]. Such a roll-out, in any event, would not be competitive with other wireless

¹ This is often described as optimized fractional load in frequency hopping implementations with high frequency re-use.

providers' LTE offerings unless additional spectrum was secured. **[Begin Confidential Information]**

[End Confidential

Information] Additionally, T-Mobile USA subscribers will have substantially improved coverage reach and depth, including rural and underserved areas, due to the lower frequency bands used by AT&T. Moreover, the T-Mobile USA infrastructure grid is complementary to AT&T's network, thereby allowing for rapid site sharing and cell splitting that will provide immediate benefits to consumers. Due to the complementary nature of the technologies used by both companies, this transaction realizes greater efficiencies than would any other alternative.

10. T-Mobile USA is also already facing capacity constraints due to explosive growth in data services. Absent the availability of additional spectrum, T-Mobile USA is projected to reach capacity exhaustion in as much as **[Begin Confidential Information]**

[End Confidential Information] The merger with AT&T will allow T-Mobile USA a clear path to LTE in an efficient, expeditious fashion.

III. T-MOBILE USA IS FACING SPECTRUM EXHAUSTION ISSUES

11. T-Mobile USA currently operates a second generation digital mobile service using the GSM standard on its 1.9 GHz PCS spectrum.² T-Mobile USA's GSM network covers approximately 280 million people in 48 states, the District of Columbia, Puerto Rico and the Virgin Islands. T-Mobile USA has approximately **[Begin Confidential Information]**
[End Confidential Information] GSM-only subscribers, which make up approximately **[Begin**

² T-Mobile USA has a single 850 MHz cellular license that also utilizes GSM.

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Confidential Information] [End Confidential Information] of its overall subscriber base.

The vast majority of T-Mobile USA’s GSM subscribers have multi-band devices that are compatible with AT&T’s GSM systems in the 850 MHz cellular and PCS bands. T-Mobile USA has also deployed HSPA and HSPA+, including dual carrier HSPA+, using its 1.7/2.1 GHz AWS spectrum. T-Mobile USA’s HSPA network now covers 212 million POPs and its HSPA+ coverage includes 200 million POPs. T-Mobile USA currently serves approximately **[Begin**

Confidential Information] [End Confidential Information] UMTS subscribers with its HSPA/HSPA+ network.³

12. T-Mobile USA has experienced explosive growth in mobile wireless demand over the past several years. This is primarily due to T-Mobile USA’s HSPA+ network expansions which utilize its 1700/2100 MHz Advanced Wireless Service (“AWS-1”) spectrum and the concomitant growth in use of data services by its customers. T-Mobile USA has also deployed a very extensive fiber-to-the-base-station network (*i.e.*, **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA HSPA cells will be served by fiber by the end of 2011) allowing for improvements in data speeds. Nonetheless, T-Mobile USA faces spectrum exhaust in a number of markets due to explosive growth in demand.

13. More specifically, T-Mobile USA has experienced very rapid growth in data traffic over the past 4 years, which is expected to increase with the accelerated penetration of smartphones and associated data plans in the contract segment. By 2015, T-Mobile USA expects data traffic on its network to be at least 20 times that of the 2010 level.

³ T-Mobile USA’s HSPA+ subscribers can (and will) make use of the GSM network where there is no HSPA+ coverage.

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14. Smartphones, and the data demands placed by consumers using these devices, have driven much of this growth. In the next 5 years--2011 to 2015--analysts predict that smartphone penetration will exceed 80% for most U.S. mobile carriers. Approximately **[Begin Confidential Information]** **[End Confidential Information]** of the T-Mobile USA contract customer base now uses a smartphone. In the next five years, the vast majority of contract customers and a substantial portion of the prepaid segment are expected to have a smartphone.

15. Smartphone usage trends are also driving further traffic growth in a number of respects. As the voice-centric (2G) customer base migrates to data-centric services provided over HSPA+, T-Mobile USA has found:

- Increased per user data usage as mobile applications proliferate and develop;
- Increased load from mobile applications, which typically involve frequent interaction with the web (*e.g.*, social networking updates, location updates, advertising, mobile-peer-to-mobile-peer, *etc*);
- Significant growth of mobile video and streaming media traffic; and
- Additional data traffic as voice-centric communications become supplanted by data-centric messaging, including the use of VoIP.

16. Notably, with the uptake of smartphones and the popularity of mobile applications and social networking (*e.g.*, Facebook, Twitter), the rate of growth in data signaling has grown beyond that of the data traffic itself (be it volume or throughput). The underlying reason for this is that mobile applications stimulate very frequent status updates and interactions with the web resulting in substantially more signaling events than for a normal voice-centric mobile device. Annual growth rates of approximately 400% in data signaling have occurred in the last couple of

years. This growth rate is likely to continue with the accelerated penetration of smartphones in the market.

17. When today's mobile data network was initially specified and designed, the architects did not predict the signaling growth from the smartphone and mobile applications paradigm, and therefore the resulting impact was not considered in the fundamental design of next generation mobile technologies. This further stresses the current mobile network's infrastructure as well as the scarce available spectrum resources.

18. These factors have caused capacity constraints for T-Mobile USA. **[Begin Confidential Information]** **[End Confidential Information]** for example, will have demand exceed AWS-1 capacity in **[Begin Confidential Information]** **[End Confidential Information]**. Several more markets are expected to reach spectrum exhaustion by **[Begin Confidential Information]**

[End Confidential Information]T-Mobile USA anticipates that anywhere from **[Begin Confidential Information]** **[End Confidential Information]** of markets could reach spectrum exhaustion.

19. In all traffic scenarios, T-Mobile USA expects data traffic demand to continue to grow exponentially over the period 2011 to 2015. Thus, the severity of spectrum exhaustion will increase proportionally as well. As T-Mobile USA only has two spectrum bands and is limited from spectrum re-farming by the GSM to HSPA+ migration rate, **[Begin Confidential Information]** **[End Confidential Information]**

[End Confidential Information]

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20. When considering spectrum exhaustion, it is important to understand the spectrum options and restrictions within T-Mobile USA's existing portfolio. T-Mobile USA operates its GSM services in the PCS band and its HSPA+ services in the AWS-1 band. The average spectrum position of each individual band is approximately 25 MHz. However, the variation in spectrum across U.S. markets is substantial, *i.e.*, standard deviation is 6 MHz and 11 MHz for PCS and AWS respectively.

21. Given spectrum exhaust timelines, T-Mobile USA must act now to address these deficiencies. While the FCC has indicated it will make additional spectrum available in the future, the timing of the availability of that spectrum is uncertain. In addition, newly allocated spectrum, for example, is not immediately available to relieve capacity after licensing because of implementation delays necessitated by: (1) the standards process, (2) equipment manufacturing, (3) site upgrade issues and (4) potential incumbent clearance of the spectrum. Any newly allocated spectrum that is not already commercialized (such as the mobile satellite spectrum) will require actions at the relevant standards bodies prior to deployment of the spectrum. In general, standards efforts are a 12 to 18 month process. After new bands have been added to existing standards, additional time is needed to manufacture and test new devices designed to utilize the new spectrum. The design, manufacturing and testing process generally requires at least 6 to 12 months to complete. Additionally, depending on the propagation characteristics of newly acquired spectrum, tower sites may need upgrading to deploy the new spectrum – there may not be capacity at a particular site, rezoning may be required, or the deployment may require a renegotiation of lease terms to add space to accommodate the new operations. Finally, should any incumbent operations remain in the newly allocated spectrum, time will be required to remove or relocate these systems.

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22. Even if a new spectrum band can be made available and can be brought into use immediately (*e.g.*, a secondary market transaction for 700 MHz spectrum), handset penetration requires time before capacity exhaust issues in existing bands can be positively impacted by the introduction of the new band. Meaningful capacity relief requires handsets compatible with new bands to make up a significant portion of the user base, and it takes time to migrate customers to newly banded handsets. Technology diffusion, even when a new technology becomes available, still typically takes years before a critical mass can be achieved and benefits of such can be expected.

IV. T-MOBILE USA HAS NO CLEAR PATH TO LTE IN AN ECONOMICALLY AND TECHNICALLY SUSTAINABLE FASHION

23. Due to spectrum exhaustion, difficulty in aggressive re-farming of existing spectrum holdings and a lack of other viable spectrum options, T-Mobile USA has no clear path to an effective, economical deployment of LTE. **[Begin Confidential Information]**

[End Confidential Information]

24. When T-Mobile USA secured its AWS spectrum, it had a choice of which technology to pursue in that band. At the time, however, UMTS/HSPA was the only logical choice for the company. Unlike LTE, which, at the time, was not standardized and not available for T-Mobile USA, HSPA was a mature technology that offered significant spectral efficiency and data rate improvements over GSM. In fact, it is only now that LTE networks are being

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broadly deployed, and while the technology now offers clear benefits over HSPA, those benefits were purely theoretical at the time T-Mobile USA was making its choice for the AWS band.

25. Further, the longer T-Mobile USA must rely upon HSPA+, **[Begin Confidential Information]** **[End Confidential Information]** as the majority of its competitors roll out LTE services. Given its lack of spectrum for LTE **[Begin Confidential Information]**

[End Confidential Information]

26. Finally, due to delays in implementing LTE, as well as an LTE deployment that would be sub-optimal, **[Begin Confidential Information]**

[End Confidential Information]

27. LTE is a major advance for the mobile industry in terms of performance and efficiency. Unlike HSPA, which is approaching the end of its deployment cycle, LTE deployment is just starting to gain momentum. T-Mobile USA requires a clear path to LTE because LTE offers long-term spectrum efficiencies over HSPA+. Given the burgeoning demand for mobile broadband data, there is a need for greater spectrum bandwidths to meet the capacity and data speed requirements. LTE is up to 40% more spectrally efficient than HSPA+ in larger effective bandwidths, even with a dual carrier HSPA+ configuration. LTE standards contemplate and are optimized for larger bandwidths that are required for mobile broadband

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data. LTE, in these larger bandwidths, will have 1.5 to 2 times faster peak data rates than HSPA+ with dual carriers,⁴ will drive down latency, and improve and lower signaling overhead.

28. As noted above, there are two possible methods for obtaining additional spectrum: (1) re-farming existing spectrum or (2) acquisition of new spectrum. Each of these approaches, when contrasted with merging with AT&T, are sub-optimal.

29. Re-farming would require moving the existing T-Mobile USA customer base from GSM in the 1900 MHz PCS band to the HSPA+ network in the 1700/2100 MHz AWS-1 band. This would free up the PCS spectrum for deployment of LTE, if sufficient amounts of spectrum could be cleared by this approach. However, T-Mobile USA's lack of spectrum depth dictates that re-farming will only provide a limited amount of spectrum. To accommodate its existing GSM customer base, at least **[Begin Confidential Information]** **[End Confidential Information]** of PCS spectrum must be reserved for GSM based on current usage (approximately **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA base are GSM only – approximately **[Begin Confidential Information]** **[End Confidential Information]**). In the meantime, the existing customer base is also heavily utilizing the AWS-1 spectrum for broadband data services (approximately **[Begin Confidential Information]** **[End Confidential Information]**). As such, it is unlikely that more than **[Begin Confidential Information]** **[End Confidential Information]** could be cleared by re-farming and be made available for LTE in the near term as these existing services and customers require continued support and spectrum bandwidth.

⁴ These efficiency gains are based on the use of the same amount of allocated spectrum. Higher peak speeds can be realized by dedicating additional spectrum to LTE operation.

30. **[Begin Confidential Information]**

[End Confidential Information].

31. Alternatively, T-Mobile USA could seek to re-farm its PCS operations to HSPA+ and AWS-1 to LTE. This would put T-Mobile USA on a path to conform with market competition in terms of spectrum and bandwidth. However, it would be highly complex and in **[Begin Confidential Information]** **[End Confidential Information]**. Existing customer devices would need to be migrated to support such a technology path. Realistically, this would require T-Mobile USA to have access to additional PCS and/or AWS-1 spectrum to ensure a seamless transition for its existing customer base. **[Begin Confidential Information]**

[End Confidential Information]

32. **[Begin Confidential Information]**

[End Confidential Information], T-Mobile USA also has carefully studied the market for the acquisition of new spectrum. While the Federal Communications Commission (“FCC”) has consistently announced its intent to focus on the allocation and licensing of additional mobile broadband spectrum, none of these initiatives appears to remedy the particular spectrum needs of T-Mobile USA in sufficient time to avoid spectrum exhaust.

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33. A first choice for additional spectrum would be to find spectrum below 1 GHz (low band spectrum) to allow for better coverage at more economic costs of deployment. The FCC has two spectrum blocks targeted for potential allocation and licensing: (1) the 700 MHz D Block and (2) UHF television spectrum. Neither of these bands appears to be capable of being licensed in the near-term.

34. The 700 MHz D Block has a Presidential priority and recommendation for reallocation to public safety use. Similarly, the UHF television spectrum (572-698 MHz), which is directly adjacent to the existing 700 MHz commercial wireless spectrum band, would be well suited for commercial LTE deployment. The FCC has targeted this 120 MHz of spectrum for reallocation but has determined that it requires Congressional action to authorize “incentive auctions” to reallocate the spectrum from television broadcasters to commercial wireless use. While the White House and the FCC both strongly support Congressional action, it is unclear if any legislation will pass this year. Further, even if the FCC received this authority from Congress this year, incentive auction rules and the auction itself will take a significant amount of time to develop and implement and the spectrum would not be commercially available for many years. As such, the UHF television spectrum would not be a near-term solution for T-Mobile USA.

35. In addition, the FCC also has spectrum above 1 GHz within its inventory. The AWS-2 and AWS-3 bands are allocated for commercial mobile services but have not had final service and auction rules adopted for their use. The AWS-2 spectrum (the so-called H and J Blocks) is paired and spectrally adjacent to both PCS and AWS-1 spectrum bands. However, the H Block has some significant concerns regarding interference to existing PCS operations that have yet to be resolved, and the J Block uses a non-standard pairing (indeed, the spectrum may

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end up being unpaired to add spectrum to AWS-3). Finally, AWS-3 (2155-2175 MHz) is unpaired spectrum and the FCC is awaiting resolution of potential pairing from spectrum currently allocated to the Federal government. In general, the FCC appears unlikely to complete service and auction rules for these two spectrum bands for many years.

V. COMBINING T-MOBILE USA AND AT&T SPECTRUM AND NETWORKS PROVIDES A CLEAR PATH TO LTE.

36. Reviewing all of the facts, I concur with the benefits of the transaction analysis provided in Section V of the Hogg Declaration. The merger will allow the combined entity access to enough spectrum and network infrastructure to increase capacity significantly, and to achieve demonstrable service improvements for its subscribers that could not occur but for the transaction. It will provide a clear path for LTE for T-Mobile USA in the most effective, expeditious manner possible.

37. First, as noted above, the efficiencies gained from combining AT&T and T-Mobile USA's networks are substantial. Redundant GSM control channel spectrum will no longer be required, freeing up 4.8 to 10 MHz of spectrum for the combined company. Moreover, in areas where AT&T and T-Mobile USA's 1900 MHz PCS spectrum overlap, the existing GSM channels can be more efficiently pooled, improving service to both company's customers.

38. As AT&T and T-Mobile USA both rely upon the same network technology (GSM and HSPA), **[Begin Confidential Information]**

[End Confidential Information].

Moreover, T-Mobile USA's network grid is complementary to AT&T's network, allowing T-Mobile USA's sites to achieve "instant" cell splitting (as discussed in more detail in the Hogg

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Declaration). This in turn allows the combined company an extensive increase in network capacity that would otherwise require years of new site builds to accomplish.

39. Finally, the AT&T and T-Mobile USA (PCS and AWS-1) spectrum bands are complementary. This means that: (1) the efficiency gains discussed above are more pronounced and (2) AT&T can readily use T-Mobile USA's AWS-1 spectrum for LTE in the most efficient fashion in combination with its own AWS-1 spectrum. Moreover, the PCS spectrum holdings of T-Mobile USA can be more efficiently used for both GSM (improving dropped and blocked call rates for customers) and HSPA+ (allowing for the launch of additional carriers and easing capacity concerns in congested markets) following this transaction.

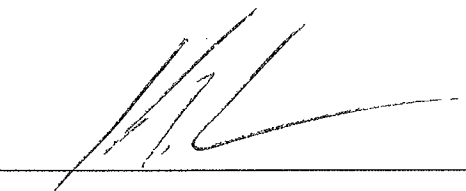
40. In sum, the combination of AT&T with T-Mobile USA will allow a clear, efficient path to LTE that would not otherwise exist for T-Mobile USA. This will provide GSM, HSPA+ and LTE services for customers of the combined entity in a better, more rapid fashion than any other alternatives. It will allow for broader coverage, greater capacity, and a robust and efficient deployment of LTE. The merger will result in a company with sufficient spectrum and capacity to offer LTE services on a scale necessary to compete with other companies while continuing to support legacy services and customers.

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I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

DATED: April 19, 2011

By: _____



Dr. Kim Kyllsbech Larsen
Senior Vice President
Deutsche Telekom AG

**Declaration of Dennis W. Carlton,
Allan Champine, and Hal Sider**

DECLARATION OF DENNIS W. CARLTON, ALLAN SHAMPINE AND HAL SIDER

I. INTRODUCTION

A. QUALIFICATIONS

Dennis W. Carlton

1. I, Dennis W. Carlton, am the Katherine Dusak Miller Professor of Economics at the Booth School of Business of The University of Chicago. I received my A.B. in Applied Mathematics and Economics from Harvard University and my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I have served on the faculties of the Law School and the Department of Economics at The University of Chicago and the Department of Economics at the Massachusetts Institute of Technology. I specialize in the economics of industrial organization. I am co-author of the book *Modern Industrial Organization*, a leading text in the field of industrial organization, and I also have published over 100 articles in academic journals and books, including several articles on the economics of the telecommunications industry. In addition, I am Co-Editor of the *Journal of Law and Economics*, a leading journal that publishes research applying economic analysis to industrial organization and legal matters, serve on the Editorial Board of *Competition Policy International*, a journal devoted to competition policy, and serve on the Advisory Board of the *Journal of Competition Law and Economics*. I have also served as an Associate Editor of the *International Journal of Industrial Organization and Regional Science and Urban Economics*, and on the Editorial Board of *Intellectual Property Fraud Reporter*.

2. In addition to my academic experience, I served as Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S. Department of Justice from October 2006 through January

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2008. I also served as a Commissioner of the Antitrust Modernization Commission, created by Congress to evaluate U.S. antitrust laws. I have served as a consultant to the Department of Justice on the Horizontal Merger Guidelines (1992) of the Department of Justice and Federal Trade Commission, as a general consultant to the Department of Justice and Federal Trade Commission on antitrust matters, and as an advisor to the Bureau of the Census on the collection and interpretation of economic data.

3. I also am a Senior Managing Director of Compass Lexecon, a consulting firm that specializes in the application of economics to legal and regulatory issues and for which I previously served as President when the firm was called Lexecon. I have provided expert testimony before a variety of courts and regulatory agencies in Canada, the United States, Europe and New Zealand and have submitted testimony to the Federal Communications Commission (FCC) in a variety of prior matters. A copy of my curriculum vita is attached in Exhibit 1 to this report.

Allan L. Shampine

4. I, Allan L. Shampine, am a Vice-President of Compass Lexecon. I received a B.S. in Economics and Systems Analysis (Summa Cum Laude) from Southern Methodist University in 1991, an M.A. in Economics from the University of Chicago in 1993, and a Ph.D. in Economics from the University of Chicago in 1996. I have been with Compass Lexecon (previously Lexecon) since 1996. I specialize in applied microeconomic analysis and have done extensive analysis of network industries, including telecommunications and payment systems. I am the editor of the book Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies, and I have also published a variety of articles on the economics of telecommunications and network industries. In addition, I have previously provided economic testimony on telecommunications issues on a variety of matters before the FCC and state public utility commissions. A copy of my curriculum vita is attached in Exhibit 1 to this report.

Hal S. Sider

5. I, Hal S. Sider, am a Senior Vice-President of Compass Lexecon. I received a B.A. in Economics from the University of Illinois in 1976 and a Ph.D. in Economics from the University of Wisconsin (Madison) in 1980. I have been with Compass Lexecon (previously Lexecon) since 1985, having previously worked in several government positions. I specialize in applied microeconomic analysis and have performed a wide variety of economic and econometric studies relating to industrial organization, antitrust and merger analysis. I have published a number of articles in professional economics journals on a variety of economic topics and have testified as an economic expert on matters relating to industrial organization, antitrust, labor economics and damages. In addition, I have provided economic testimony on telecommunications issues on a variety of matters before the FCC and state public utility commissions. A copy of my curriculum vita is attached in Exhibit 1 to this report.

B. SUMMARY OF CONCLUSIONS

6. We have been asked by counsel for AT&T Inc. (AT&T) to present our assessment of competitive issues raised by AT&T's proposed acquisition of T-Mobile USA Inc. (T-Mobile USA) from Deutsche Telekom AG. This initial evaluation is based on our familiarity with the telecommunications industry, our review of publicly available documents and data sources, documents and information provided to us by the companies and discussions with executives of all three companies. We will continue to analyze additional data and our documents during the course of this proceeding and use that information to supplement our analysis as appropriate.

7. We conclude that the proposed transaction will promote competition by enabling the merged firm to achieve engineering-based network synergies that increase network capacity beyond the levels that AT&T and T-Mobile USA could achieve if the two companies continued to operate independently. These additions to capacity will permit the merged firm to expand output beyond the

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sum of the output levels that would be achieved if the firms operated independently. A proper antitrust analysis of this transaction must account for the existing capacity limitations and the effect of this transaction on increasing capacity, among other factors. Given the large projected increases in demand for wireless data services, the recognized shortage of spectrum available in many areas to serve increased demand, the ongoing competitiveness of the wireless industry, the cost savings expected to result from the transaction, and the business plans for the merged firm, we conclude that the merged firm will have strong incentives to use this additional capacity to increase output compared to levels that would be expected in the absence of the proposed transaction. These factors are central to the analysis of the proposed transaction and our conclusion that it will not result in harm to consumer welfare.

8. While the FCC has always examined wireless mergers on an area-by-area basis, the overriding conclusion here holds whether competition is analyzed at a national or local level: the proposed transaction will increase consumer welfare by expanding output, improving quality and lowering price relative to levels expected in the absence of the proposed transaction. Nonetheless, the usefulness of an area-by-area analysis in this matter is reinforced by the value of examining not only the local competitive conditions but also local capacity constraints faced by AT&T and T-Mobile USA.

9. The major reasons for the conclusions explained in this Declaration are as follows:

- As the FCC has recognized, demand for wireless services has grown dramatically in recent years, and this growth is projected to continue due in part to the growth in the use of smartphones and connected devices and growth in demand for video-based Internet services. The FCC has concluded that spectrum currently dedicated to wireless uses is far below the levels needed to meet the projected increases in demand.
- AT&T and T-Mobile USA have limited ability to expand capacity and output in response to the projected growth in demand due both to their limited spectrum holdings and

their inability to readily redeploy spectrum needed to continue providing service to existing subscribers. New spectrum is not expected to be available for use by wireless carriers for at least several years and AT&T and T-Mobile USA face limited alternatives for quickly addressing capacity shortfalls in the near term.

- AT&T and T-Mobile USA have complementary spectrum and network assets that will allow the merged firm quickly to expand capacity and output above the levels that each company could achieve independently. Engineering analysis indicates that a combination of the networks can increase capacity by: (i) creating a denser network with additional cells that increases aggregate capacity; (ii) increasing the spectrum available for the provision of service due to the elimination of redundant control channels for the firms' GSM networks; (iii) generating "channel pooling efficiencies" which enable a firm's existing spectrum to serve more subscribers due to the higher probability of obtaining an open channel when channels are grouped in larger pools; (iv) facilitating migration of subscribers from less efficient to more efficient technologies; and (v) expanding coverage of AT&T's "next generation" Long Term Evolution (LTE) network. AT&T will have strong incentives to expand output given the strong projected growth in demand for data services and competitive pressures to attract data users by offering innovative and high-quality services. For example, AT&T has been an industry leader in introducing wireless devices such as the iPhone and iPad that have spurred rapid growth in wireless data use.
- The merged firm will continue to face significant competition after the proposed transaction due in part to the fact that not all firms face the same potential capacity limitations in the same areas at the same time. AT&T will face competition not only

from Verizon Wireless and Sprint, but also from low-cost, non-contract carriers MetroPCS and Leap/Cricket which offer nationwide, or near-nationwide, pricing and are attracting an increasing number of subscribers. In addition, strong regional carriers such as U.S. Cellular often serve a substantial share of subscribers in the areas where they provide service and offer nationwide pricing. At least three of these competitors, in addition to AT&T and T-Mobile USA, are present in a large majority of areas in which AT&T and T-Mobile USA compete.

- The merged firm will also face competition from new entrants including LightSquared and Clearwire. LightSquared is now deploying an LTE network that it plans to use to provide wholesale service to areas covering 260 million people in the U.S. by 2015, and Clearwire currently provides WiMax service on both a retail and wholesale basis to areas covering 112 million people. In the future, AT&T may also face competition from firms that hold spectrum but have not yet launched service, such as SpectrumCo (or the cable companies that own SpectrumCo), DISH, as well as firms that can enter when the FCC auctions new spectrum. Each of these potential entrants, as well as newer carriers such as MetroPCS and Leap, has the ability to “leapfrog” existing carriers by deploying “next generation” technologies, as they do not need to serve an embedded base of subscribers using “last generation” technologies.
- Absent this transaction, T-Mobile USA’s competitive significance is likely to decline in the future due, in part, to the lack of sufficient spectrum to allow it a clear path to deploying LTE, a problem that analysts -- and T-Mobile USA itself -- recognize will put T-Mobile USA at a competitive disadvantage relative to other carriers. The moderate

decline in T-Mobile USA's subscriber share in recent years also indicates that its competitive significance is likely to continue to decline in the future.

- Concerns about unilateral anticompetitive effects do not apply given the expected expansion in output from the proposed transaction. It is well recognized that concerns about unilateral effects are eliminated or mitigated when: (i) firms face high and rising marginal costs of expanding output; (ii) firms face strong demand (so they operate on the steep or vertical portion of the marginal cost curve); and (iii) mergers result in synergies that increase capacity or, equivalently, reduce the marginal cost of expanding output. These are precisely the circumstances that characterize the proposed transaction: (i) both AT&T and T-Mobile USA face high and rising marginal costs of expanding output; (ii) demand for data services is projected to grow dramatically; and (iii) the proposed transaction promises to result in engineering-based synergies that will increase network capacity. Further, the post-merger business plans described in the accompanying declarations of AT&T's David Christopher and John Donovan confirm that AT&T plans to use the increased capacity resulting from the proposed transaction to expand output.
- If one misapplies standard models of unilateral effects that are based on the assumptions that pre-merger output can be readily expanded and that a merger will not result in an expansion of capacity, then one can obtain misleading results about the likelihood that the proposed merger will harm competition.
- Concerns about unilateral effects are also reduced by the substantial differences in the characteristics of T-Mobile USA and AT&T subscribers: For example, T-Mobile USA's subscribers are less heavy data users than AT&T's; enterprise customers account for a

substantially smaller share of T-Mobile USA subscribers compared to AT&T; the T-Mobile USA subscriber base includes a substantially larger share of “non-contract” customers compared to AT&T, which predominantly serves “contract” subscribers; and T-Mobile USA’s subscribers are characterized by much higher customer separation rates, or “churn” compared to AT&T’s.

- For similar reasons, typical concerns about coordinated anticompetitive effects do not apply due in part to the present and future capacity constraints faced by AT&T and T-Mobile USA and the projected growth in demand for data services. Given these circumstances, the merged firm has strong incentives to expand output in response to the reduction in marginal cost (or equivalently, increase in capacity) resulting from the proposed merger and not to restrict output due to coordination with other firms that face different marginal costs. Apart from capacity considerations, concerns about coordinated effects are addressed by a variety of industry characteristics including: the diversity of wireless firms and their business strategies; the multidimensional nature of service offerings; the complex nature of industry pricing; and differences across firms with respect to technology, handset offerings, spectrum holdings, capacity utilization, geographic network coverage and differences in the identity of carriers operating in different areas. The importance of competition to gain long-term advantages by offering service innovations also reduces concerns about coordinated effects.
- Finally, the proposed transaction does not eliminate a “maverick” from the wireless industry. While mavericks are often defined as firms that grow by disrupting competition, T-Mobile USA’s share of wireless subscribers has been declining modestly in recent years. Past FCC comments also indicate that none of the major pricing or

service innovations in recent years was initiated by T-Mobile USA. To the extent that T-Mobile USA's prices are lower than those of AT&T and Verizon Wireless, the fact that T-Mobile USA's share of retail subscribers has not been growing indicates not that it is a price leader, but rather a recognition that customers perceive certain dimensions of T-Mobile USA service are lacking relative to those offered by competitors.

II. RATIONALE FOR THE PROPOSED TRANSACTION

A. AT&T AND T-MOBILE USA LACK ADEQUATE CAPACITY TO EFFICIENTLY SERVE THE LARGE PROJECTED GROWTH IN THE DEMAND FOR WIRELESS DATA SERVICES.

10. The proposed transaction promises to create additional capacity needed to serve the large projected increases in the demand for wireless service and to improve the quality of wireless service provided to AT&T and T-Mobile USA subscribers. Due to the current demand and large projected increase in demand for wireless data services, the networks operated by AT&T and T-Mobile USA are now at or near capacity in many areas and both firms face high and increasing costs of serving additional customers.

11. The ability of AT&T and T-Mobile USA to support new subscribers and traffic is now constrained by available spectrum, whether one examines spectrum now held by each firm, spectrum that can be acquired from others, or spectrum that the FCC will allocate and will become available to wireless services at some point in the future. In addition to limitations of available spectrum, the ability of AT&T and T-Mobile USA to support new subscribers and additional usage is limited by the lengthy time and limited efficacy associated with expanding network capacity by deploying new cell sites,

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offloading traffic using WiFi, distributed antenna systems (DAS) or upgrading networks to use more spectrally efficient technologies.¹

12. As explained in the accompanying declarations of William Hogg, AT&T's Senior Vice President of Network Planning and Engineering and Kim Larsen, Deutsche Telekom's Senior Vice President for Technology Service and International Network Economics, the large projected growth in the demand for data services means that both firms are or will soon be capacity constrained in certain areas, or will otherwise face a significant deterioration in service quality. As explained in these declarations and summarized briefly below, combining AT&T's and T-Mobile USA's network assets will enable the merged firm to take advantage of a variety of engineering-based network synergies which will increase capacity beyond the sum of the levels the two companies could achieve if operated independently and enable the merged firm to expand output beyond the sum of the levels that the two networks could achieve independently. The increase in capacity of the combined firm that is expected to result from the proposed transaction will benefit consumers by expanding output and improving service quality. This essential point bears repeating. Even if one were to oversimplify the nature of wireless competition and mischaracterize this industry as consisting of only four nationwide players, the transaction would be pro-competitive and would benefit consumers by creating new capacity, thereby leading to greater output and lower prices compared to the levels that would exist in the absence of the proposed transaction.

13. The competitive impact of the proposed transaction also needs to be evaluated in the context of the highly dynamic and rapidly evolving wireless telecommunications industry. Over the last

1. The term capacity constraint, as used in this declaration, should not be thought of as a strict engineering limit on the number of subscribers that can be served by a network. Instead, from an economic perspective, a firm is said to face a capacity constraint when it faces a steeply rising cost of serving additional subscribers (holding quality constant). In the context of the wireless industry, increasing subscribers on the existing network and spectrum can lead to reduction in network quality or service.

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15 years there has been large and continuous growth in the number of wireless voice subscribers, as well as dramatic increases in the utilization of wireless services per subscriber. This expansion in industry output has been accompanied by a dramatic reduction in industry pricing. Additionally, wireless service providers have expanded their product offerings, especially the availability of high quality mobile data services.

14. To put this into perspective, the number of wireless subscribers has grown from 38 million in June 1996 to 293 million in June 2010, an increase of over 650 percent.² In addition, the usage of voice services by subscribers has increased dramatically over this period, with the average monthly voice minutes of use increasing by more than 475 percent, from 119 to 686 minutes per subscriber.³ Together, the combination of increasing numbers of subscribers and usage per subscriber has led to an explosion in wireless voice service. Between June 1996 and December 2010, total wireless voice minutes in the United States increased from 24 billion to 1.1 trillion, an increase of roughly 4,600 percent.⁴ In the past two years, total voice minutes on wireless networks have leveled off, but this has been offset by rapidly increasing use of wireless data applications including texting, email, and Internet access.

15. The dramatic growth in the demand for wireless voice services has been driven in part by large price declines, with carriers' average revenue per voice minute falling from \$0.41 per minute in June 1996 to less than \$0.05 per minute in June 2010, a decline of 88 percent.⁵ This growth in output

2. CTIA, "CTIA's Wireless Industry Indices Mid-Year 2010 Results," November 2010, Chart 3, p. 24.

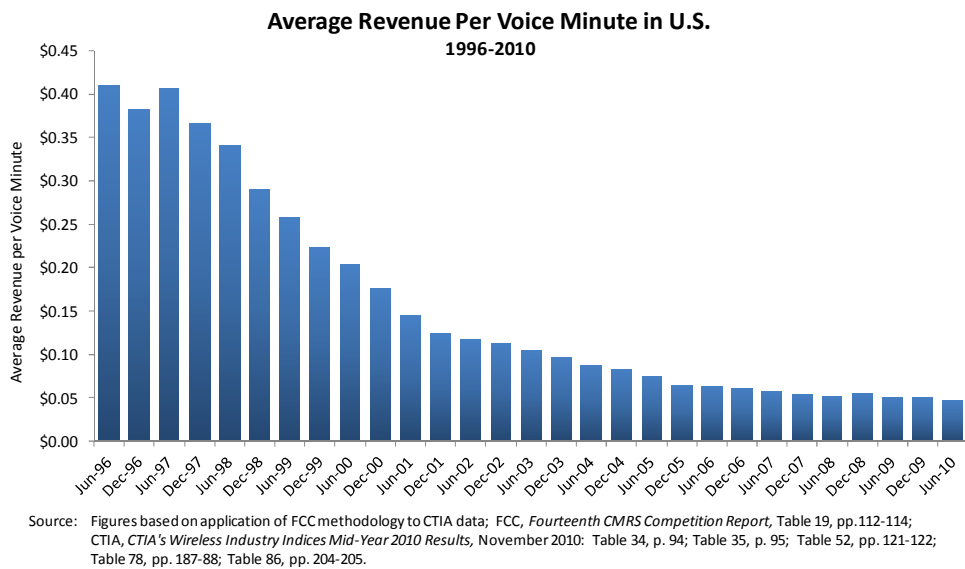
3. CTIA, "CTIA's Wireless Industry Indices Mid-Year 2010 Results", November 2010, Table 86, pp. 204-205.

4. CTIA, "CTIA's Wireless Industry Indices Mid-Year 2010 Results", November 2010, Table 85, pp. 202-203; http://files.ctia.org/pdf/CTIA_Survey_Year_End_2010_Graphics.pdf

5. Available data do not permit calculation of average revenue per voice minute for the second half of 2010. In inflation adjusted terms, average revenue per voice minute fell by 92 percent between June 1996 and June 2010.

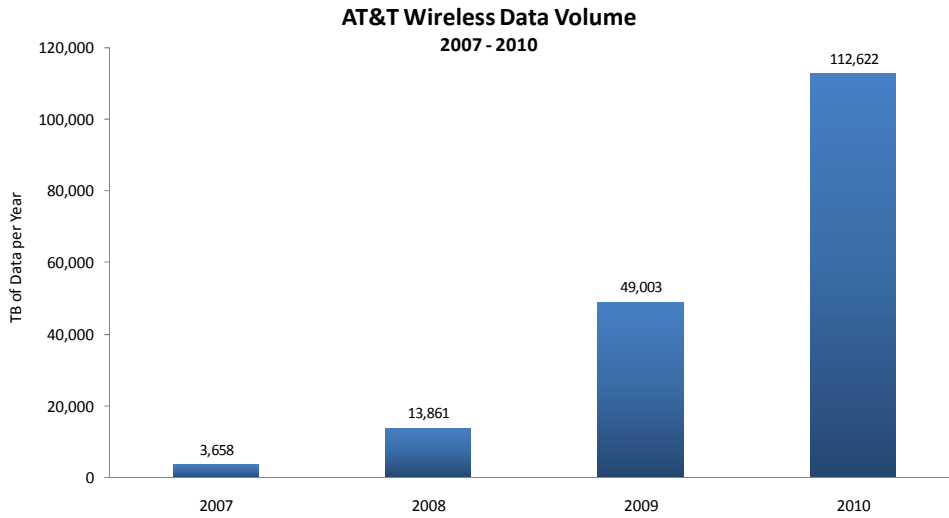
and reduction in prices was achieved in part through past mergers which led to the creation of more efficient carriers.

Figure 1



16. In recent years, the growth of wireless services has been driven by increased demand for data services including text, email, and Internet access. For example, AT&T's subscribers wireless data use in 2010 was 31 times that in 2007.

Figure 2



Source: Based on AT&T estimates.

17. Growth in output of wireless data services has accompanied a dramatic decline in prices for data services. AT&T estimates indicate that average revenue per megabyte (MB) for its subscribers fell by roughly **[Begin Confidential Information]** **[End Confidential Information]** percent between 2007 and 2010.

Figure 3

[Begin Confidential Information]

[End Confidential Information]

18. The expansion in the demand for wireless data services in recent years is also reflected in the share of total wireless industry revenue that is accounted for by data services. Data from the industry association CTIA show that the share of wireless industry revenues from data services has increased from (essentially) 0 in June 1999 to 31 percent in June 2010.⁶

19. This growth in the demand for wireless data services is due in part to the widespread adoption of smartphones, such as the iPhone, which allow for improved wireless web browsing, video and other data services and were offered with unlimited data plans. For example, data from the FCC indicate that the number of mobile wireless data connections increased from 26.5 million in December 2008 to 71 million in June 2010.⁷

6. CTIA, "CTIA's Wireless Industry Indices Mid-Year 2010 Results," November 2010, Chart 28, p. 124.

7. FCC, "Internet Access Services: Status as of June 30, 2010," March 2011, Table 1, p. 15. The FCC "requires mobile wireless providers to report the number of subscribers that have a capable device (as discussed above) for which the subscription includes a data plan for transferring, on a monthly basis, either a specified or an unlimited amount of data to and from Internet sites of the subscriber's choice, and *excluding* subscribers whose choice of content is restricted to only

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20. Smartphone adoption among AT&T subscribers has been higher than industry-wide totals due in part to the introduction of a portfolio of innovative devices including the iPhone.⁸ The rapid adoption of these devices is contributing to the capacity problems faced by AT&T.⁹ In December 2010, data revenues accounted for **[Begin Confidential Information] [End Confidential Information]** percent of total service revenues, up from **[Begin Confidential Information] [End Confidential Information]** percent in January 2008.¹⁰ As discussed in detail in William Hogg's declaration, the pace at which AT&T needs to put spectrum into operation is rapidly increasing with the increase in demand in certain major markets. In 2004, AT&T needed to add 10 MHz every 24 months.¹¹ Today, AT&T's UMTS growth in certain major markets is consuming an additional 10 MHz of spectrum in half the time or less.¹² As discussed in more detail below, AT&T has responded to the dramatic increase in demand with massive capital investments to increase capacity and by introducing tiered pricing for data services, with more intensive data users paying more and less intensive users paying less.

21. But such responses alone are not sufficient to enable AT&T to meet projected demand. Analysts expect growth in wireless data traffic to continue to increase dramatically in coming years. As summarized in Figure 4, the average of three forecasts reported by the FCC indicates that mobile data traffic growth in 2014 will be 35 times the 2009 level. The FCC notes that "[i]n all three forecasts, the trend remains upward in 2014, implying continued growth beyond the forecast period."¹³

customized for- mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games)." FCC, "Internet Access Services: Status as of June 30, 2010," March 2011, p. 81.

8. JP Morgan, "U.S. Telecom Services and Towers," January 13, 2011, p. 29.

9. Hogg Declaration, ¶4.

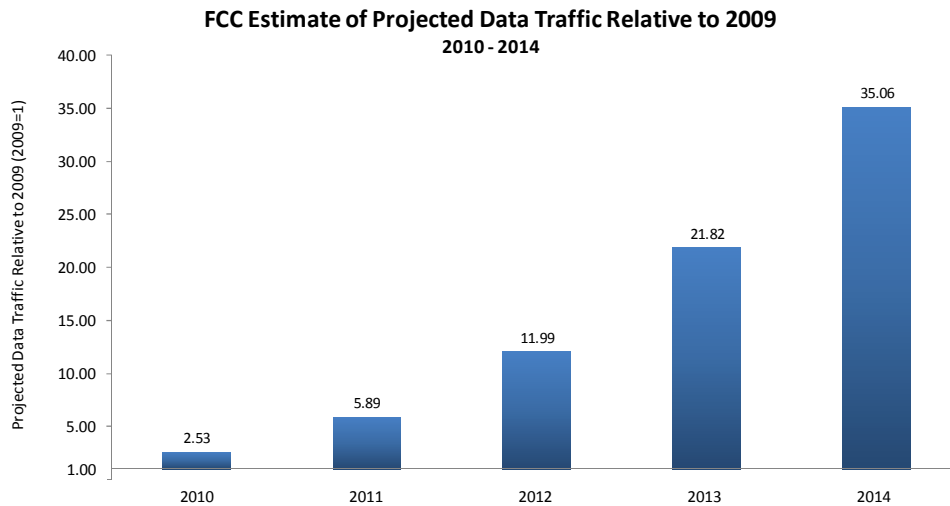
10. AT&T estimates.

11. Hogg Declaration, ¶6.

12. Hogg Declaration, ¶6.

13. FCC, Mobile Broadband: The Benefits of Additional Spectrum, October 2010, p. 9. The FCC cites estimates by "respected industry sources of Cisco Systems, Coda Research and the Yankee Group."

Figure 4



Source: Federal Communications Commission, *Mobile Broadband: The Benefits of Additional Spectrum*, October 2010, exhibit 10, p. 18.

22. This projected growth is driven by expected increases in the utilization of smartphones, connected devices and computers in accessing wireless services and increases in the demand for wireless video services. Credit Suisse forecasts that the number of smartphones in North America is expected to more than triple between 2009 and 2015, increasing from 64 million to 224 million.¹⁴ One of the forecasts cited by the FCC, by Cisco Systems, notes that “[b]ecause mobile video content has much higher bit rates than other mobile content types, mobile video will generate much of the mobile traffic growth through 2015. Of the 6.3 exabytes per month crossing the mobile network by 2015, 4.2 exabytes will be due to video.”¹⁵ As this suggests, the share of wireless revenue generated by wireless services is expected to grow and will soon account for the majority of wireless revenue. For example,

14. Credit Suisse, “Convergence 2010”, July 15, 2010, p. 6.

15. Cisco, “Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010-2015,” p. 8.

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Guggenheim Securities projects that "...wireless data revenue will crest the 50% mark in the United States sometime in the 2012 calendar year."¹⁶

23. Analysts also recognize that the dramatic growth in demand is expected to result in significant congestion of wireless networks.

Powerful smartphones, fast networks, compelling applications, and user awareness are causing a dramatic surge in the use of mobile-broadband technology. ... But there is a problem. There simply is not enough network capacity to address the emerging demand, and we are already witnessing the effects of network congestion, with many users complaining of slow network operation on some networks. Capacity is based on a number of factors, but foremost is the amount of spectrum available for broadband services. The FCC chairman himself recently stated that he saw the biggest threat to the future of mobile activity in America as the looming spectrum crisis.¹⁷

24. The FCC and others recognize that wireless carriers face a spectrum shortage as the result of the projected demand for data services. The FCC noted in October 2010 that "even when using conservative assumptions about the market factors that affect spectrum need, it is likely that spectrum will become an increasingly scarce resource in the near term and that freeing spectrum for mobile broadband use over the next five years will entail significant economic benefits."¹⁸ The FCC's analysis validated the need for additional spectrum and the recommendation in the National Broadband Plan for the FCC to make available 500 MHz of new spectrum for wireless services.¹⁹

B. THE GROWTH IN DEMAND FOR WIRELESS SERVICE IS OUTSTRIPPING AT&T'S ABILITY TO EXPAND CAPACITY AND PROVIDE HIGH QUALITY SERVICE.

25. AT&T has invested heavily in expanding its wireless network capacity in response to increased demand. Over the last three years, AT&T has spent \$21.1 billion in upgrading and expanding

16. Guggenheim Securities, "Telecommunications Services – Wireless Voice & Data Plan Summary Detail Version 1.2", December 15, 2010, p. 3.
17. Rysavy Research, "Mobile Broadband and Capacity Constraints and the Need for Optimization," February 24, 2010, p. 4.
18. FCC, "Mobile Broadband: The Benefits of Additional Spectrum", October 2010, p. 6.
19. FCC, "Mobile Broadband: The Benefits of Additional Spectrum", October 2010, p. 2.

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its wireless network.²⁰ AT&T has upgraded UMTS cell sites with more spectrally efficient HSPA+ and is expanding UMTS and HSPA+ deployment to the remaining GSM-only sites (where spectrum is available).²¹ In addition, AT&T is beginning to deploy LTE in areas that account for 80 percent of the population of the United States, a project that it expects to be complete by 2013.²²

26. AT&T has been spending **[Begin Confidential Information]** **[End Confidential Information]** per year to expand capacity by adding more cell sites (cell splitting) and optimizing existing sites through antenna tilts and other technical modifications.²³ AT&T is also attempting to ease network congestion by shifting data traffic off of its wireless network. For example, AT&T offers free WiFi access to its smartphone customers in 24,000 locations and has installed distributed antenna systems (DAS) in certain locations with high traffic concentration in an effort to offload traffic from its cell site network.²⁴ However, as discussed below, these alternatives have serious limitations in terms of their ability to move a significant volume of traffic off of AT&T's wireless network.

27. AT&T has also adopted tiered pricing of data services, in which more intensive data users pay more and less intensive users pay less, in an effort to help manage network traffic. AT&T's tiered pricing plan, introduced in June 2010, gave existing data customers the ability to remain on their existing unlimited plans or to opt into one of the new plans to save money.²⁵

20. AT&T Annual Reports, 2010, p. 71, 2008, p. 60.

21. Hogg Declaration, ¶22.

22. Hogg Declaration, ¶27.

23. Hogg Declaration, ¶18.

24. Hogg Declaration, ¶18. AT&T Press Release, "AT&T Announces New Lower-Priced Wireless Data Plans to Make Mobile Internet More Affordable to More People," June 2, 2010.

25. The new tiered pricing plans offer subscribers a choice between AT&T's Data Plus plan, which lowers fees to \$15 per month for subscribers that use less than 200 MB and charges an additional \$15 per month for each additional 200 MB block accessed in the month, and AT&T's Data Pro plan, which lowers fees to \$25 per month for subscribers that use less than 2 GB and charges an additional \$10 per month for each additional 1 GB block accessed in the month. When launched, the new plans potentially reduce price for more than 95 percent of data subscribers. Telecommunications Reports, AT&T Deploys Tiered Data Plans, June 15, 2010.

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28. Despite these ongoing efforts to expand network capacity, AT&T is still facing difficulties in a number of areas, including many that are important to its ability to succeed on a national basis. Problems with dropped and blocked calls and slow data services faced by subscribers in areas such as New York and San Francisco have been widely reported in the press.²⁶ Further, because these areas are centers of media attention, poor network performance in these major cities can hurt AT&T's ability to attract customers everywhere.

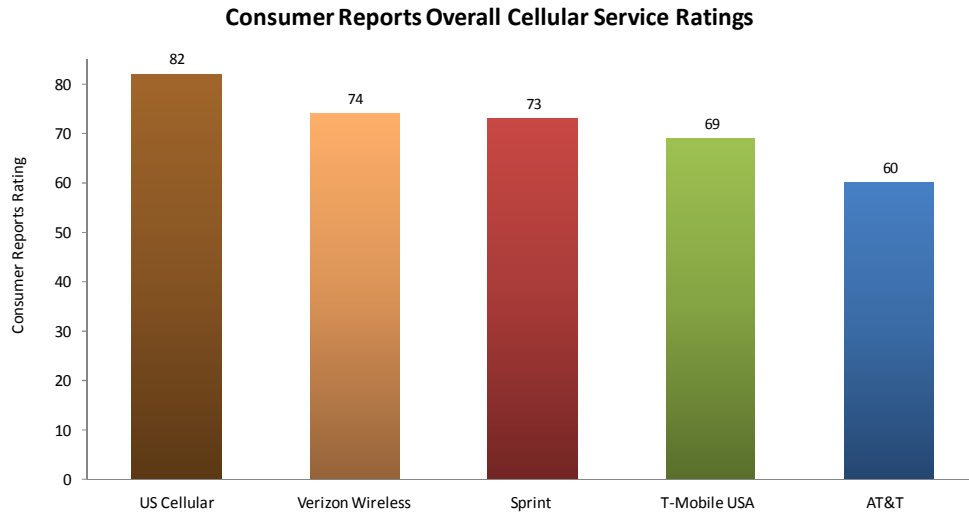
29. Indeed, consumer testing groups and surveys of customer satisfaction typically rate AT&T lower than Verizon and Sprint. Consumer Reports' January 2011 ratings of wireless services, for example, concluded that Verizon Wireless, Sprint and U.S. Cellular had the highest overall consumer satisfaction for wireless service, with AT&T last among the carriers rated. Similar results held in each of the 23 cities evaluated by Consumer Reports.²⁷

AT&T Press Release, "AT&T Announced New Lower-Priced Wireless Data Plans to Make Mobile Internet More Affordable to More People," June 2, 2010.

26. New York Times, "Bringing You a Signal You're Already Paying For," April 6, 2010. San Francisco Chronicle, "AT&T's challenge: retaining iPhone users", February 10, 2011.

27. Consumer Reports website, updated January 2011 (subscription required). See also http://www.changewaveresearch.com/articles/2010/05/wireless_service_20100504.html.

Figure 5



Source: ConsumerReports, January 2011.

C. THE ABILITY OF AT&T AND T-MOBILE USA TO RESPOND TO INCREASED DEMAND IS LIMITED BY THEIR OPERATION OF MULTIPLE NETWORKS OVER MULTIPLE SPECTRUM BANDS.

30. In evaluating the rationale for the proposed transaction, it is important to recognize that AT&T and T-Mobile USA mobile operate multiple wireless networks, not just one. Specifically, AT&T operates a GSM network, a UMTS/HSPA/HSPA+ network and is now deploying an LTE network.²⁸ T-Mobile USA operates a GSM network as well as a UMTS/HSPA/HSPA+ network. These networks and the spectrum bands they operate on are summarized in Table 1 below.

31. AT&T's network footprint covers over 300 million people in the U.S.²⁹ The AT&T UMTS/HSPA/HSPA+ network currently covers roughly 260 million people and is being expanded to cover 100 percent of AT&T's network footprint.³⁰ AT&T's GSM network serves roughly **[Begin Confidential Information]** **[End Confidential Information]** million subscribers and its UMTS/HSPA/HSPA+ network

28. AT&T expects to launch LTE service in mid-2011. <http://www.fiercewireless.com/story/t-launching-lte-mid-2011/2010-09-16>

29. Hogg Declaration, ¶18.

30. Hogg Declaration, ¶22.

serves roughly [Begin Confidential Information] [End Confidential Information] million subscribers.³¹

AT&T's current plans call for its LTE network to cover 80 percent of the U.S. population and will expand this footprint to over 97 percent of the population as part of the proposed transaction.³²

32. T-Mobile USA's network footprint covers roughly 86 percent of the U.S. population.³³

The T-Mobile USA UMTS/HSPA/HSPA+ network currently covers 64 percent of the population.³⁴ T-

Mobile USA's GSM network serves roughly [Begin Confidential Information] [End Confidential

Information] million subscribers and its UMTS/HSPA/HSPA+ network serves roughly [Begin Confidential

Information] [End Confidential Information] million subscribers.³⁵ T-Mobile USA has no current plans

to deploy LTE services.³⁶

Table 1

AT&T and T-Mobile USA Networks and Spectrum

Spectrum Band	AT&T			T-Mobile USA		
	GSM	UMTS/HSPA	LTE	GSM	UMTS/HSPA	LTE
700 MHz			UC			
850 MHz	X	X				
1900 MHz	X	X		X		
AWS			UC		X	

X: Active; UC: Under Construction

33. The ability of a carrier to respond to increases in demand is limited due in part to the limited capabilities of existing handsets in accessing new technologies. While handsets are generally backward compatible so a UMTS/HSPA/HSPA+ handset can access GSM services if only GSM services are available in an area, older GSM-only devices cannot access UMTS/HSPA/HSPA+ networks. Thus, carriers

31. Hogg Declaration, ¶¶18, 22.

32. Hogg Declaration, ¶¶27, 59.

33. Larsen Declaration, ¶11.

34. Larsen Declaration, ¶11.

35. Larsen Declaration, ¶11.

36. Larsen Declaration, ¶9.

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need to maintain older technologies to continue to serve customers that are slow to switch to a newer technology handset. A carrier's ability to migrate customers in this way depends on the rate at which consumers choose to adopt the new technology, which depends in part on device availability and price, the geographic scope of available service, and other factors.

34. These factors make transitioning between older technologies and newer technologies a lengthy process. For example, the FCC's 2000 Biennial Review required carriers to continue offering analog service until 2008, many years after carriers deployed digital technologies.³⁷ Similarly, AT&T currently plans to continue to offer its GSM network well into this decade. AT&T and other carriers operating multiple legacy networks have a strong economic incentive to maintain service for such customers in order to preserve their reputations for serving existing customers. As discussed further below, new carriers are less likely than established carriers to face this complication in deploying new generations of wireless networks.

35. Moreover, it is difficult for carriers to respond to the dramatic growth in demand through incremental purchases of spectrum in frequency bands that are compatible with their existing network equipment and consumer devices, since these are likely to be owned and used by another carrier or otherwise not available to be acquired.³⁸

D. AT&T AND T-MOBILE USA FACE LIMITED ALTERNATIVES FOR ADDRESSING THE CAPACITY LIMITATIONS EXPECTED OVER THE NEXT SEVERAL YEARS.

36. As mentioned above, AT&T has undertaken large capital investments in recent years in order to upgrade its networks, improve service quality, and deploy "next generation" services. The

37. http://wireless.fcc.gov/services/index.htm?job=about_cellular_reports&id=cellular. FCC, Second Report and Order In the Matter of Year 2000 Biennial Regulatory Review – Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services, FCC 02-247, September 24, 2002, Appendix A.

38. Moore Declaration, ¶122.

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accompanying declarations of AT&T's William Hogg and Deutsche Telecom's Kim Larsen explain how each of their firms faces significant limitations on its ability to expand network capacity due in part to expectations that no newly-licensed spectrum will be available for several years. As they explain, there are limits on the ability of carriers to expand capacity by adding cells to the network and alternative methods addressing capacity constraints such as WiFi and DAS deployments have been ineffective at moving a significant volume of traffic off the network.³⁹

37. For example, the technical experts explain that in areas where it is feasible to engage in "cell splitting", there are practical limits on the speed with which new cells can be deployed due to the need to negotiate leases and the time and difficulty in obtaining local permits. These efforts are further complicated by the need to meet a range of other regulatory requirements, such as those related to the National Environmental Policy Act, the National Historic Preservation Act, and the Federal Aviation Administration.⁴⁰ In addition, the most efficient cell sites from an engineering and network management perspective can be very difficult to obtain and may not have space to accommodate multiple carriers.⁴¹ Similarly, negotiation of agreements that enable the use of DAS or WiFi systems for moving traffic off existing networks in areas with high traffic density also can be a lengthy process.⁴²

38. Alternatives such as WiFi and distributed antenna systems (DAS), while helpful, have also been found to be insufficient to keep up with the large increases in demand.⁴³ WiFi, for example, can be useful in expanding coverage to areas such as the interior of building not well served by the network. Despite its efforts, AT&T's WiFi sites have not removed enough traffic to relieve AT&T's

39. Hogg Declaration, ¶¶8-9.

40. Hogg Declaration, ¶70.

41. Hogg Declaration, ¶¶68-69.

42. Hogg Declaration ¶73.

43. Hogg Declaration ¶73.

impending capacity constraints.⁴⁴ It has experienced difficulties with handing off traffic between WiFi and cellular networks as well as with getting subscribers to use WiFi when it is available.⁴⁵

39. In a recent evaluation of capacity constraints faced by wireless firms, Rysavy Research drew similar conclusions:

To satisfy this quickly growing demand, especially since it will take five years or more to bring any new spectrum online, operators are using multiple strategies. One is building new cell sites. Spectrum reuse, which cellular technologies accomplish through the use of the same frequencies over and over in different cells is, in fact, the greatest determinant of overall network capacity. But building new sites is an expensive and time-consuming process. Offloading data onto other networks, such as Wi-Fi, is another option, and one that operators are pursuing aggressively. Femto cells could also eventually offload data in buildings, but the femto market has been slow to develop. New technologies, such as WiMAX and LTE, are spectrally more efficient than previous technologies, but not that much more, and wireless technology is approaching theoretical limits of spectral efficiency. Wireless network deployment in the 700 MHz band will provide a boost in network capacity, but it will be 2014 before these networks will be broadly deployed, and, even then, their capacity is quite finite.

All of these approaches, plus eventual new spectrum, will help address the demand. But even then, wireless capacity will remain constrained relative to demand. This is because augmenting capacity is only part of the answer. The other part is more efficient use of spectrum.⁴⁶

40. As Rysavy notes, these difficulties are not likely to be alleviated in the next several years by allocation of new spectrum to wireless service. In November 2010, the FCC began the process that may lead to licensing bands currently used for UHF/VHF television.⁴⁷ In the National Broadband Plan the FCC notes that utilization of AWS and PCS spectrum licenses was slowed by the need to relocate incumbent users despite prior FCC Orders to achieve this goal and the multi-year nature of the

44. Hogg Declaration, ¶73.

45. Hogg Declaration, ¶73.

46. Rysavy Research, "Mobile Broadband Capacity Constraints and the Need for Optimization," February 24, 2010, p. 5.

47. FCC, Notice of Proposed Rulemaking in the Matter of Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF, FCC 10-96, November 30, 2010, ¶1.

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reallocation process.⁴⁸ According to the FCC, “[t]he process of revisiting or revising spectrum allocations has historically taken 6-13 years. [...] Deploying networks adds still more time.”⁴⁹

41. We understand that use of this spectrum cannot occur until (i) there is federal legislation; (ii) the FCC completes a rulemaking to establish the terms of the auction; (iii) the auction occurs; (iv) existing users are cleared from the spectrum; and (v) network equipment is deployed. While the FCC schedule currently calls for the auction of UHF/VHF spectrum to occur in 2013, the spectrum is not scheduled to be cleared of existing users until at least 2015.⁵⁰ However, even this time table may prove optimistic. One analyst noted that “...most of the big broadcasters have pushed back against this, and some argue that they could better use the spectrum for mobile video than could the wireless carriers. Whichever way this is decided it’s likely to be a battle, and we don’t expect a resolution for 3-5 years.”^{51 52}

42. The FCC itself has recognized the lengthy time required for making additional spectrum available for wireless services, noting that:

[a]ttempts to reallocate spectrum under this approach have often been contentious, as licensees possess certain rights and expectations that can make it difficult, in practice, for the FCC to reclaim and re-license that spectrum for another purpose. Contentious spectrum proceedings can be time-consuming, increasing the opportunity cost of delayed reallocation of licenses to other uses.⁵³

48. FCC, Auction 78 Notice, DA-08-767, April 4, 2008, ¶¶10-14. FCC, Connecting America: The National Broadband Plan, Chapter 5 (Spectrum).

49. FCC, Connecting America: The National Broadband Plan, p. 79.

50. FCC, Spectrum Analysis: Options for Broadcast Spectrum, OBI Technical Paper No. 3, June 2010, p. 4.

51. JP Morgan, “U.S. Telecom Services & Towers,” January 13, 2011, p. 49.

52. The FCC also has scheduled Auction 92 covering portions of the 700 MHz spectrum for July 2011. However, analysts note that this auction is unlikely to have a significant effect on wireless capacity. According to a JP Morgan report, the auction involves “...the remnants of licenses that either didn’t sell in the last 700 MHz auction or were turned back in to the Commission already. Most are rural and have little impact on the overall spectrum market, by our analysis.” JP Morgan, “U.S. Telecom Services & Towers,” January 13, 2011, p. 48.

53. FCC, Spectrum Analysis: Options for Broadcast Spectrum, OBI Technical Paper No. 3, June 2010,

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43. Even the “fast track” evaluation of new spectrum bands proposed by the NTIA and U.S. Department of Commerce in October 2010 does not call for auctions of new spectrum not already scheduled by the FCC before 2014.⁵⁴ The plan outlined a framework for licensing an additional 500 MHz of spectrum over a 10-year period. As noted above, it can be several years after licenses are granted before spectrum is put into operation in wireless networks.

44. The spectrum that AT&T has agreed to acquire from Qualcomm will not be able to be put in use to address AT&T’s spectrum limitations for at least several years.⁵⁵ These licenses are for “unpaired” spectrum that was intended for use in one-way broadcast services, much like traditional television service.⁵⁶ Technological advances are expected to allow these spectrum blocks to be used with other spectrum to provide two-way wireless services, but we understand that the technical specifications for use of such unpaired spectrum in LTE are not expected to be completed until late 2011 at the earliest, and AT&T believes that this will not be available for use until 2014 at the earliest.⁵⁷ Once completed, equipment manufacturers will need to design, test and build the relevant equipment before the spectrum can be put to use.⁵⁸

p. 24.

54. NTIA, U.S. Dept. of Commerce, “Plan and Timetable to Make Available 500 Megahertz of Spectrum for Wireless Broadband,” October 2010, pp. 23-25; and “An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675-1710 MHz, 1755-1780 MHz, 3500-3650 MHz, 4200-4220 MHz & 4380-4400 MHz,” October 2010.

55. See Moore, ¶125. The Qualcomm spectrum assets consist of nationwide licenses for the D Block of lower 700 MHz spectrum, which accounts for 6 MHz of spectrum, as well as 6 MHz of lower 700 MHz spectrum in 5 areas in E block licenses. Description of Transaction, Public Interest Showing and Related Demonstrations, In re Applications of AT&T Mobility Spectrum LLC and *Qualcomm Incorporated*, FCC Form 603, January 13, 2011, p. 14. Declaration of Kristin S. Rinne, Senior Vice President – Architecture & Planning, AT&T Services, Inc., In re Applications of AT&T Mobility Spectrum LLC and *Qualcomm Incorporated*, FCC Form 603, January 12, 2011, ¶18.

56. Description of Transaction, Public Interest Showing and Related Demonstrations, In re Applications of AT&T Mobility Spectrum LLC and *Qualcomm Incorporated*, FCC Form 603, January 13, 2011, p. 6.

57. Moore Declaration, ¶125.

58. Declaration of Kristin S. Rinne, Senior Vice President – Architecture & Planning, AT&T Services,

III. THE PROPOSED TRANSACTION WILL BENEFIT CONSUMERS BY EXPANDING CAPACITY AND OUTPUT AND REDUCING OPERATING COSTS.

45. The impact of a merger on consumer welfare depends on its impact on output together with the related price effects – a merger that increases output relative to levels expected in its absence reasonably results in lower price than would otherwise occur. From an economic perspective, antitrust enforcement promotes consumer welfare by blocking mergers that result in a reduction in output and higher prices, while permitting those expected to benefit consumers. This section reviews how the proposed transaction will benefit consumers by enabling the expansion of capacity and output. We also review how the proposed transaction will reduce costs faced by the combined firm and describe how consumers are likely to benefit from these cost reductions.

A. T-MOBILE USA IS A NATURAL PARTNER FOR AT&T AND THE PROPOSED TRANSACTION ACCELERATES AT&T’S ABILITY TO EXPAND CAPACITY AND OUTPUT RELATIVE TO OTHER ALTERNATIVES.

46. As discussed above, AT&T and T-Mobile USA face capacity constraints and high costs of expanding output due to (i) the lack of available new spectrum; (ii) technical and practical limitations on the parties’ ability to rapidly expand capacity by constructing new cells or offloading traffic using WiFi and other technologies; and (iii) difficulties in re-allocating existing spectrum through the use of higher capacity “next generation” technologies. Given these constraints, the firms’ complementary spectrum licenses and networks enable the firms to expand capacity and output by integrating their operations.

47. AT&T and T-Mobile USA have similar spectrum and network assets. As summarized in Table 1 above, both AT&T and T-Mobile USA offer GSM and UMTS/HSPA/HSPA+ services. Both firms have 1900 Hz and AWS spectrum (with AT&T also utilizing 700 MHz and 850 MHz bands.) We further

Inc., In re Applications of AT&T Mobility Spectrum LLC and Qualcomm Incorporated, FCC Form 603, January 12, 2011, ¶8.

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understand that T-Mobile USA's GSM handsets generally are capable of accessing both the 850 MHz spectrum used by AT&T and the 1900 MHz spectrum used by both firms in their GSM networks.⁵⁹ As a result, integration of the two firms' GSM networks is facilitated by having already compatible handsets and network equipment and the proposed transaction avoids many problems associated with integrating non-compatible technologies.

48. AT&T plans to migrate T-Mobile USA's UMTS/HSPA/HSPA+ subscribers to its 850MHz/1900 MHz based UMTS/HSPA/HSPA+ or its LTE network as the capacity-enhancing benefits of network integration are realized. This will free T-Mobile USA's AWS spectrum to be used for AT&T's LTE deployment, one of the two spectrum bands AT&T is using for LTE. Thus, as explained further below, the proposed transaction enables the merged firm to expand capacity relative to the independent operation of the networks in part by using spectrum for GSM more efficiently and repurposing T-Mobile USA's AWS spectrum to provide more efficient LTE services and expand the scope of LTE deployment.

49. As this suggests, the proposed transaction avoids many of the problems that arise in merging networks using different technologies. It has been widely noted, for example, that technology differences were the source of significant problems affecting attempts to integrate Sprint and Nextel following their merger in 2005 and contributed to a decline in Sprint/Nextel's share of wireless subscribers that persisted until the latter part of 2010.⁶⁰

59. Hogg Declaration, ¶¶18-19.

60. See, for example, Current Analysis, "Sprint Nextel – Business Services US," August 23, 2010, p. 2: "Sprint is very focused on customer service, acknowledging that poor customer service coupled with network performance problems after the Nextel acquisition was a principal reason for customer defections."; Andy Haryanto, "Sprint Nextel Merger Analyzed Using Organization Metaphors," April 12, 2008, p. 2: "The blockbuster merger incurred great expenses and integration problems. To make matters worse, Sprint Nextel was facing technology problems, strong competitors, and cost-conscious consumers. Many customers fled the company frustrated by the customer service quality."

B. THE CAPACITY OF THE MERGED FIRM WILL EXCEED THE COMBINED CAPACITY OF THE TWO FIRMS IF OPERATED INDEPENDENTLY.

50. The complementary nature of AT&T's and T-Mobile USA's networks and spectrum will enable the merged firm to expand capacity and output relative to levels that could be achieved by independent operation of each network. As discussed in William Hogg's Declaration, there are several major factors that contribute to this procompetitive outcome: (i) expanding coverage of AT&T's LTE network and facilitating migration of subscribers from less efficient technologies; (ii) increasing the spectrum available for the provision of service due to the elimination of a duplicative control channel for the firms' GSM networks; (iii) creating a denser network with additional cells that increases aggregate capacity; and (iv) generating "channel pooling" efficiencies which result in expanded capacity from the combined spectrum of the merging firms due to the higher probability of obtaining an open channel when larger channel pools are created.

1. The proposed transaction expands capacity by facilitating the use of more efficient technologies.

51. By combining the firms' GSM subscribers onto a single network, the combined firms will be able to repurpose spectrum to UMTS/HSPA/HSPA+ which can support more traffic. The transaction will also allow the combined firm to migrate T-Mobile USA's UMTS/HSPA/HSPA+ subscribers to either LTE or the combined UMTS network, allowing the AWS spectrum to be repurposed to the more spectrally efficient LTE technology. This "repurposing" expands the number of areas in which AT&T will be able to deploy LTE and increases the amount of spectrum available to provide LTE services. This expands network capacity because, for a given amount of spectrum and network density, LTE is roughly

860 percent more efficient than GSM and about 30-40 percent more efficient than HSPA+ with dual carriers.⁶¹

52. As described in William Hogg's Declaration, AT&T currently lacks the spectrum to launch LTE in [Begin Confidential Information] [End Confidential Information] CMAs covering roughly [Begin Confidential Information] [End Confidential Information] people, and has limited spectrum in an additional [Begin Confidential Information] [End Confidential Information] CMAs covering roughly [Begin Confidential Information] [End Confidential Information] people. With the transaction, AT&T will extend its deployment of LTE from covering 80 percent of the U.S. population to covering over 97 percent.⁶²

2. Increased spectrum availability from GSM network integration

53. Currently, AT&T and T-Mobile USA each need to dedicate between 4.8 and 10 MHz of spectrum to a control channel for their GSM networks.⁶³ Among other things, the control channel is used to broadcast a signal from a cell site to handsets in the area, allowing the handsets to choose the site with the best signal.⁶⁴ However, the combined firm would require only one channel, freeing 4.8 to 10 MHz for the provision of service. This "new" spectrum can be used to increase network capacity, service quality, or both.⁶⁵

3. Increased capacity due to integration of the cell site networks

54. A wireless network can, within limits, expand capacity by increasing the density of its cell site network.⁶⁶ A carrier's ability to do so, however, is limited among other ways by its ability to

61. Hogg Declaration, ¶25. Carriers here is an engineering term and does not refer to wireless service providers.

62. Hogg Declaration, ¶¶27, 60.

63. Hogg Declaration, ¶48.

64. Harry Newton, Newton's Telecom Dictionary (24th edition), p. 263.

65. Hogg Declaration, ¶48.

66. Cell sites are often referred to as "towers," but may consist of antennae and equipment

place sites in the proper location, which is a time consuming process that typically requires negotiating with building owners or land owners and obtaining the necessary permits from municipal authorities. This process can take years to complete.⁶⁷

55. AT&T plans to integrate about **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA's sites into the combined firm's network.⁶⁸ AT&T expects that the benefits from integration of the cell towers can be completed within 9 months of closing in areas of certain markets, with nationwide integration completed within 24 months after closing.⁶⁹

56. Moreover, the merger enables AT&T to retain the locations that are most advantageous to the combined firms, which is expected to result in the retirement of certain AT&T sites as well as T-Mobile USA sites. These improvements in "cell density" resulting from the addition of new cells to the network result in additional capacity in both urban and rural areas and can be particularly valuable in major markets as they run out of spectrum.⁷⁰ AT&T anticipates that cell density will increase by roughly 35-45 percent in Chicago, and by 25-35 percent in San Francisco and New York relative to what the two firms would build separately, and further result in improvements in service quality.⁷¹ This integration roughly doubles the traffic that can be carried in the area around any individual site.⁷² The improvements in cell density enabled by the merger will enable immediate capacity increases for AT&T and T-Mobile USA's current GSM and UMTS/HSPA/HSPA+ networks, but will also enhance the capacity of the new LTE network as it is rolled out.⁷³

attached to buildings or other structures instead.

67. Hogg Declaration, ¶¶69-72.

68. Hogg Declaration, ¶12.

69. Hogg Declaration, ¶44.

70. Hogg Declaration, ¶47.

71. Hogg Declaration ¶47.

72. Hogg Declaration, ¶46. AT&T plans to install multi-band antennas on the sites to enable them to serve customers of both companies.

73. Hogg Declaration, ¶12.

4. Efficiencies from “channel pooling” to improve the ability to balance periods of peak and slack capacity across existing networks.

57. The combination of AT&T and T-Mobile USA’s networks further increases the efficiency by aggregating the two separate blocks of spectrum currently operated by each company into larger channel pools that increase the probability of obtaining an open channel and thus initiating a call or data session.⁷⁴ This “channel pooling efficiency” means that the joint operation of two networks will result in fewer blocked calls and can support more subscribers than would be possible if each network were operated independently. AT&T estimates that this efficiency applies most immediately to the firms’ GSM networks given the existing capability of T-Mobile USA GSM handsets to access AT&T’s spectrum, and will produce a roughly 10-15 percent increase in capacity. However, the same logic applies to integration of the UMTS/HSPA/HSPA+ networks and will be realized as T-Mobile USA’s existing UMTS/HSPA/HSPA+ customers migrate to AT&T’s network.⁷⁵

58. In sum, the capacity of the merged network will be greater than the sum of the capacity of the two networks if they continued to be operated independently. As discussed further below, the merged company will have strong incentives to fully utilize available capacity given the rapid projected increase in the demand for wireless services and competition from AT&T’s rivals which are now deploying LTE and aggressively promoting “all you can eat” packages of voice and data services.⁷⁶

C. THE PROPOSED TRANSACTION WILL BENEFIT AT&T AND T-MOBILE USA SUBSCRIBERS.

59. The proposed transaction will benefit AT&T subscribers by providing increased network capacity, which allows improved quality of voice service. As discussed further below, AT&T’s post-merger plan, consistent with our economic analysis, is that increases in network capacity that will result

74. Hogg Declaration, ¶50.

75. Hogg Declaration, ¶¶49-53.

76. Christopher Declaration, ¶18.

from the merger will be used to increase output relative to levels that would prevail in the absence of the proposed transaction.

60. The proposed transaction alleviates capacity constraints in a large number of areas in which AT&T currently or soon will not have enough spectrum to deploy to meet additional demand for UMTS/HSPA/HSPA+ service.⁷⁷ This includes roughly [Begin Confidential Information] [End Confidential Information] CMAAs with a combined population of nearly [Begin Confidential Information] [End Confidential Information] people, with [Begin Confidential Information] [End Confidential Information] by [Begin Confidential Information] [End Confidential Information] and [Begin Confidential Information] [End Confidential Information] in [Begin Confidential Information] [End Confidential Information] running out of spectrum.⁷⁸ As described in William Hogg's declaration, these constraints can result in degradation of service, increases in blocked and dropped calls, and slower broadband data service.⁷⁹ In each of these areas, AT&T expects that the proposed transaction will enable them to deploy additional UMTS/HSPA/HSPA+ capacity as a result of the proposed transaction.

61. The proposed transaction will benefit T-Mobile USA subscribers by immediately offering them broader GSM coverage, as well as offering them better access to UMTS/HSPA/HSPA+ in areas where it is not offered by T-Mobile USA.⁸⁰

62. In addition, the proposed transaction will provide T-Mobile USA subscribers with access to LTE. As discussed further below, analysts recognize that many consumers of wireless data services

77. The widespread nature of capacity constraints faced by AT&T implies that even if there are a few local areas where divestitures are needed to preserve local competition, the benefits of the merger will still be to expand output.

78. Hogg Declaration, ¶37.

79. Hogg Declaration, ¶38.

80. Hogg Declaration, ¶¶57-59.

are likely to drop carriers that do not offer such services, which would decrease T-Mobile USA's future significance as a wireless competitor.

63. The proposed transaction also will provide increased capacity and alleviate spectrum constraints that T-Mobile USA is expected to face as data usage continues to grow.⁸¹ Roughly **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA's markets are expected to reach spectrum exhaust by **[Begin Confidential Information]** **[End Confidential Information]**. Without the transaction, T-Mobile USA estimates that its ability to grow will be significantly limited.⁸²

64. T-Mobile USA subscribers would also receive a variety of other benefits, including access to a wider array of handsets without switching carriers. We also understand that T-Mobile USA customers will have the choice of retaining their existing rate plans, ensuring that existing T-Mobile USA subscribers need not face a post-merger price increase.⁸³

D. CONSUMERS WILL LIKELY BENEFIT FROM COST SAVINGS EXPECTED TO RESULT FROM THE PROPOSED TRANSACTION

65. AT&T expects to realize cost savings with a present value of more than \$39 billion as a result of the proposed transaction. These savings are in addition to the increases in capacity (or equivalently engineering-based reductions in marginal costs) discussed above. As summarized in the Declaration of Rick Moore, AT&T's Senior Vice President of Corporate Development, AT&T projects that these cost savings will reach over \$3 billion per year from the third post-merger year forward.⁸⁴

66. Those savings include reductions both in variable and fixed costs. For example, the proposed transaction is expected to result in reductions in network costs, such as those related to cell

81. Larsen Declaration, ¶¶9-10.
82. Larsen Declaration, ¶¶18-19.
83. Moore Declaration, ¶30.
84. Moore Declaration, ¶9.

sites, which often are considered fixed but in the wireless industry are properly considered to be variable, since deployment of cell sites are required to serve additional subscribers and network utilization. AT&T estimates that these savings are significant relative to AT&T's total expenses, and AT&T's success in achieving prior cost savings in prior transactions indicates that these estimated cost savings are credible. The Declaration of Rick Moore explains that AT&T has substantial experience in network integration from recent transactions, including Cingular/AT&T Wireless, SBC/AT&T and AT&T/BellSouth.⁸⁵

67. Reductions in marginal costs create incentives for firms to expand output and reduce prices charged to consumers. Moreover, reductions in "fixed" costs can also benefit consumers, particularly in an industry such as this, which is operating near capacity in many areas and facing high costs of expanding output. For firms considering increasing network capacity, all associated costs – including those typically considered "fixed" in an accounting sense – are properly thought of as variable because they must be incurred in order to serve additional subscribers. Due to the merger-related efficiencies described above, the proposed transaction reduces the "marginal" cost of expanding capacity. Thus, "fixed cost" savings that AT&T expects to realize further reduce the cost of expanding capacity and thus increase the merged firm's incentive to do so.

68. More generally, competition in the wireless industry often is often characterized by a race to deploy new technology and services. Reductions in fixed costs, such as the cost of purchasing new network equipment, will increase firms' incentives to deploy new technologies more rapidly, which will benefit consumers. Even when firms are not yet at capacity, reductions in fixed costs can still provide benefits to consumers and to society. For example, the Report and Recommendations of the Antitrust Modernization Commission notes that "[t]he [antitrust enforcement agencies] should account

85. Moore Declaration, §V.

for the value of fixed-cost efficiencies in assessing the likely competitive effects of a merger. ... Failure to take account of and give proper weight to such fixed costs in evaluating a merger could deprive consumers and the U.S. economy of significant benefits from a pro-competitive merger.”⁸⁶ Similarly, in prior published work, Prof. Carlton has stressed that government agencies should consider both reductions in fixed as well as variable costs in evaluating mergers:

[M]any high tech industries have high fixed costs and low marginal costs – and although they develop new products rapidly, their new product cycle is often more than [the window that antitrust authorities are commonly assumed to consider in evaluating mergers]. Gains that lead to lower fixed costs today can encourage research and development, new products and plants in the future. However, by focusing only on efficiencies that influence price over a short period, a government antitrust agency risks failing to credit the future efficiencies that will benefit consumers in the long run. To put it another way, the fixed-cost savings of today are the variable-cost savings in the future for new products.⁸⁷

69. Senior Department of Justice economists have also written about how consumers can benefit from reductions in fixed costs. For example, Kenneth Heyer of the Department of Justice, notes: “[i]mportantly, however, unlike in the case of pure money transfers, fixed cost savings have significant efficiency implications for the economy as a whole.” Dr. Heyer also notes that, by freeing up resources for use elsewhere in the economy, fixed cost savings enhance an economy’s total welfare: “[t]hese [fixed cost savings] would all be net benefits to the economy – an increase in total welfare. The fact that they do not involve a reduction in the merged firm’s marginal cost – and thus do not result in any pass-through to the merged firm’s consumers – does not change the fact that the merger is welfare enhancing.”⁸⁸

86 . Report and Recommendations of the Antitrust Modernization Commissions, April 2007, p. 58.

87 . Dennis W. Carlton, “Does Antitrust Need to be Modernized?” 21 *Journal of Economic Perspectives* 155 (2007) at 157. Also see Separate Statement of Dennis W. Carlton, Report and Recommendations of the Antitrust Modernization Commission, April 2007, p. 401.

88. Ken Heyer, “Welfare Standards and Merger Analysis: Why Not the Best?” *Competition Policy International*, Autumn 2006, pp. 37, 40.

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70. Just as reductions in fixed costs can increase incentives to innovate, the difficulties faced by AT&T in expanding capacity and output today limit its incentive to innovate. Competition to develop new and innovative products is undertaken with the goal of increasing profits by attracting new subscribers. Thus, firms that face high costs of expanding output have reduced incentives to invest in innovation. As discussed more below, and explained in more detail in John Donovan's accompanying declaration, AT&T has played a leading and on-going role in developing innovations in wireless technologies and services. The merger-related efficiencies describe above will reduce AT&T's costs of expanding and thus increase its incentive to innovate.

71. In sum, the complementary spectrum and network assets held by AT&T and T-Mobile USA enable the merged firm to increase network capacity, or equivalently, lower the cost of expanding capacity and output. As a result, the capacity of the combined firms will exceed the sum of the firms' capacities if they were to continue to operate independently. Merger-related reductions in operating costs further enhance the merged firm's incentive to expand capacity and output.

IV. AT&T AND T-MOBILE USA FACE SIGNIFICANT COMPETITION TODAY AND WILL CONTINUE TO DO SO AFTER THE PROPOSED TRANSACTION.

72. The potential impact of the proposed transaction on competition in the provision of wireless voice and data needs to be evaluated in the context of the rapidly changing nature of the wireless industry. As discussed in Section II, the industry is characterized by extraordinary growth in the demand for wireless data services, ongoing changes in technology available to provide wireless services, and significant limits on the ability of certain carriers to expand output in response to these changes. Both established and newer carriers are having varying degrees of success in adapting to the changing circumstances. These firms also face varying positions with respect to spectrum holdings which

indicates that they face important differences in the marginal cost of expanding output and thus different incentives in the profit-maximizing response to changes in demand and supply conditions.

73. This section provides an overview of competition in the wireless industry today, as well as a brief description of the major providers of wireless service and their recent responses to the changes in the industry. This review illustrates the highly dynamic nature of competition in the wireless industry both today and after the proposed transaction.

74. As a starting point, it is important to recognize that AT&T has been, and is expected to remain, a vigorous competitor, as evidenced by its leading role in introducing new wireless services. AT&T spends close to \$1 billion annually on research and development of new technologies, services and applications.⁸⁹ AT&T Labs is well recognized as a leading source of innovation and was granted 862 United States patents in 2009.⁹⁰ AT&T also recently announced it would open mobile application development facilities in Tel Aviv, Israel, Palo Alto, California and Plano, Texas.⁹¹ In addition, AT&T undertook significant investment and risk in working with Apple in the original iPhone launch.⁹²

75. The merged firm will face competition not only from Verizon Wireless and Sprint but also from low cost carriers offering unlimited/non-contract service, principally MetroPCS and Leap/Cricket as well as multi-area and regional competitors such as U.S. Cellular, Cellular South,

89. Donovan Declaration, ¶18. This figure reflects R&D expenditures for AT&T as a whole.

90. Intellectual Property Owners Association, "Top 300 Organizations Granted U.S. Patents in 2009," available at http://www.ipo.org/AM/Template.cfm?Section=Top_300_Patent_Owners&CONTENTID=25899&TEMPLATE=/CM/ContentDisplay.cfm.

91. Greg Bensinger, "AT&T 'Speed Dating' With App Firms to Gain Edge," *Bloomberg Businessweek*, October 1, 2010.

92. Comments of AT&T Inc. before the FCC, In the Matter of Petition for Rulemaking Regarding Exclusivity Arrangements Between Commercial Wireless Carriers and Handset Manufacturers, RM-11497, February 2, 2009, p. 19. See also, Seeking Alpha, "Cingular Hopes iPhone Will Distract Consumers From Unreliable Voice Service," available at <http://seekingalpha.com/article/31344-cingular-hopes-iphone-will-distract-consumers-from-unreliable-voice-service>. The article notes that "Cingular/ATT (T) decided to do something risky, giving Apple (AAPL) the freedom to independently develop a completely new device ..."

Cincinnati Bell, nTelos, Atlantic Tele-Networks and others. AT&T and T-Mobile USA face competition from three or more of these competitors in the large majority of areas they serve.⁹³ For example, FCC data indicate that in 2009, 74 percent of the U.S. population had access to at least five facilities-based carriers.⁹⁴ Moreover, several of these carriers are less encumbered than AT&T and T-Mobile USA by the need to continue to use “last generation” technology to serve existing subscribers.

76. Additional competition at the wholesale and retail level is enabled by recent entrants with substantial spectrum, LightSquared and Clearwire. LightSquared is now deploying a near-nationwide LTE network and Clearwire is deploying a WiMax network that now covers 112 million people.⁹⁵ As “greenfield” entrants, LightSquared and Clearwire can “leapfrog” existing carriers by deploying “next generation” technologies without needing to dedicate spectrum and network assets to serving existing subscribers. Similarly, future entrants will have the opportunity to obtain spectrum in future FCC auctions and will be able to deploy whatever “next generation” technology is available at that time.

77. Finally, our review indicates that T-Mobile USA’s competitive significance is likely to decline in the absence of the proposed transaction due to its relative lack of success in attracting data-centric subscribers, its declining share, its high churn rate and its inability to define a clear path to deploying LTE, which analysts expect to be critical to offering key data services.

93. FCC, “Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, including Commercial Mobile Services: Fourteenth Report” May 20, 2010, FCC 10-81 (hereafter, 14th CMRS Report), Table 6, p. 39.

94. FCC, 14th CMRS Report, Table 4, p. 37.

95. LightSquared, “Nationwide LTE Broadband Network”, available at <http://www.lightsquared.com/what-we-do/network/>. Clearwire 2010 10-K, p. 2.

A. COMPETITION IN THE PROVISION OF WIRELESS SERVICES

1. The wireless industry is characterized by competition to attract and retain customers and to offer innovative services.

78. Wireless firms compete by offering a variety of different business models and pricing structures to attract customers. Some carriers, including AT&T, Verizon Wireless, Sprint, T-Mobile USA, and U.S. Cellular typically provide contract services under fixed-term contracts, usually up to two years in duration. These agreements also enable subscribers to purchase handsets at a discounted rate. Carriers also typically offer additional handset discounts or upgrades as an inducement for customers to renew their contracts.

79. In recent years, non-contract services have grown dramatically. Subscribers to such services obtain service on a month-by-month basis without a contractual obligation. Non-contract services have become increasingly popular due in part to the success of growing carriers such as MetroPCS in offering them. Non-contract subscribers also “churn” or terminate their service more frequently than contract subscribers.

80. Wireless carriers also compete with respect to the selection and price of handsets and other devices. Both contract and non-contract subscribers typically have the ability to purchase packages of voice minutes of various sizes at different price levels. Low-cost, no-contract carriers also pioneered “Unlimited” or “All You Can Eat” service packages. MetroPCS and Leap have used this strategy to attract a growing share of subscribers and to expand their operations into new areas.⁹⁶

81. Finally, and obviously, wireless carriers compete with respect to the quality of service provided, including the geographic coverage provided under the standard monthly fee, the frequency with which calls are blocked or dropped, and the speed of data services.

96. Christopher Declaration, ¶18, §IV.B.1.

2. Competition among wireless carriers generally has been analyzed at the local level.

82. In its most recent evaluation of a wireless merger, the FCC has defined the product markets as “mobile telephony/broadband services” which includes mobile voice and data services provided on legacy wireless networks.⁹⁷ In evaluating prior transactions, the FCC has defined geographic markets on a local level.⁹⁸ The market participants considered by the FCC include “facilities-based entities providing mobile telephony/broadband services using cellular, PCS, SMR, 700 MHz, AWS-1, and BRS spectrum to be market participants.”⁹⁹ The FCC also recognizes that “non-facilities-based service options [...] in some instances may provide additional constraints against anticompetitive behavior.”¹⁰⁰ We maintain here the general framework applied by the FCC in evaluating the competitive impact of the proposed transaction, although our conclusion that the proposed transaction will benefit consumers by expanding capacity and output does not hinge on the issue of market definition.

83. There are both national and local dimensions to competition in the provision of wireless service. While many subscribers obtain service based on national pricing plans, consumers tend to shop for wireless service based on carriers that operate network facilities and market their services in their

97. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶137. The Commission first explicitly incorporated wireless broadband data services in the product market in its 2007 Verizon/ALLTEL decision. FCC, Memorandum Opinion and Order and Declaratory Ruling, Verizon Wireless/ALLTEL, FCC 08-258, November 10, 2008, ¶145.

98. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶138; FCC, Memorandum Opinion and Order and Declaratory Ruling, Verizon Wireless/ALLTEL, FCC 08-258, November 10, 2008, ¶149; FCC, Memorandum Opinion and Order, AT&T/Dobson, FCC 07-196, November 19, 2007, ¶125; FCC, Memorandum Opinion and Order, Sprint/Nextel, FCC 05-148, August 8, 2005, ¶157; FCC, Memorandum Opinion and Order, Cingular/AT&T, FCC 04-255, October 26, 2004, ¶189, ¶104.

99. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶145.

100. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶145.

local area.¹⁰¹ The FCC's conclusion that wireless markets are local or regional, defined at the Cellular Market Area (CMA) or Component Economic Area (CEA) level has focused on the local nature of buyers' decisions. The FCC has concluded that:

the geographic market is the area within which a consumer is most likely to shop for mobile telephony/broadband services. For most individuals, this market will be a local area, as opposed to larger regional or nationwide area. This is because 'in response to a small but not insignificant price increase by providers' that offer service where consumers live, work or travel, most consumers are unlikely to switch to alternative wireless providers that operate only outside of such a locality.¹⁰²

84. Local aspects of competition are reflected in AT&T region-specific responses to competitive challenge by rivals with non-national networks, which are discussed in the accompanying declaration of David Christopher, who highlights the role of local retail outlets in attracting new subscribers, as well as the ability of regional managers to run local promotions and direct marketing campaigns that respond to local conditions.¹⁰³

85. The usefulness of an area-by-area analysis in this matter is reinforced by the value of examining not only the local competitive structure but also the local capacity constraints faced by AT&T and T-Mobile USA.

B. OVERVIEW OF CURRENT AND FUTURE COMPETITIVE ALTERNATIVES

86. This section summarizes characteristics of major wireless carriers, focusing on their responses to changes in demand and supply conditions in the industry and the mix of services sold and customers served. The analysis shows that, following the proposed transaction, the wireless industry will continue to be served by a variety of carriers with diverse, competing strategies. The review also

101. AT&T documents show that **[Begin Confidential Information]** **[End Confidential Information]** percent of AT&T gross adds in 2010 were purchased locally from either company-owned stores and agents, national chain stores, or other local retailers.

102. FCC, Memorandum Opinion and Order and Declaratory Ruling, Verizon Wireless/ALLTELL, FCC 08-258, November 10, 2008, ¶152.

103. Christopher Declaration, ¶¶15-16.

indicates that, in the absence of the proposed transaction, T-Mobile USA's competitive significance is expected to decline due to its lack of success among data-centric consumers and the lack of a clear path for deploying LTE services that are expected to be critical to providing data services in the future.

1. There are substantial differences in subscriber characteristics across wireless carriers.

87. As discussed above, wireless carriers compete across a wide variety of price and quality dimensions and carriers have pursued widely divergent strategies in responding to changes in demand and supply conditions in the industry. As discussed in Section V below, the heterogeneity across carriers with respect to the mix of services and customers is a factor that makes it unlikely that the proposed transaction will adversely affect competition.

88. Table 2 summarizes major characteristics of subscribers and services offered by wireless carriers. The observed differences between AT&T and T-Mobile USA indicate that subscribers see them as imperfect substitutes, lowering concerns that the proposed transaction will result in higher prices to consumers due to unilateral or coordinated effects.

89. As Table 2 demonstrates:

- The estimated percentage of T-Mobile USA subscribers that obtain non-contract service is roughly **[Begin Confidential Information]** **[End Confidential Information]** that of AT&T.
- Data revenue accounts for **[Begin Confidential Information]** **[End Confidential Information]** percent of T-Mobile USA revenue, which is roughly **[Begin Confidential Information]** **[End Confidential Information]** percentage points lower than for AT&T.
- **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA subscribers utilize smartphones or other integrated devices compared to **[Begin Confidential Information]** **[End Confidential Information]** percent for AT&T.
- Industry wide, AT&T accounts for an estimated **[Begin Confidential Information]** **[End Confidential Information]** percent of business subscribers and T-Mobile USA for **[Begin Confidential Information]** **[End Confidential Information]** percent.

- T-Mobile USA's estimated monthly churn rate, which reflects the percentage of a carrier's customer base that terminates service in a given month, is 3.60 percent compared to 1.32 percent for AT&T. This implies that T-Mobile USA **[Begin Confidential Information]** **[End Confidential Information]** of its subscribers in a given year compared to roughly **[Begin Confidential Information]** **[End Confidential Information]** percent for AT&T.
- T-Mobile USA subscribers typically have **[Begin Confidential Information]** **[End Confidential Information]** than those served by AT&T, and T-Mobile USA's subscribers are typically **[Begin Confidential Information]** **[End Confidential Information]** than AT&T's.

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Table 2 [Begin Confidential Information]

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2. Verizon Wireless and Sprint

Verizon Wireless

90. Verizon Wireless and Sprint both have (near) national network footprints, significant spectrum holdings and are currently deploying and offering “next generation” services.

91. Verizon Wireless is the largest carrier in the U.S. and is estimated to account for roughly

[Begin Confidential Information] [End Confidential Information] percent of US wireless

subscribers.¹⁰⁴ Verizon Wireless has a near national footprint and AT&T faces Verizon Wireless as a competitor in nearly all areas where AT&T operates. Verizon Wireless is principally a supplier of contract services with roughly 3 percent of its service revenues attributable to non-contract subscribers in 3Q 2010.¹⁰⁵

92. Verizon Wireless has a strong reputation for network and service quality. As mentioned in Section II above, many consumer groups and surveys give Verizon Wireless higher rankings than other carriers. AT&T’s performance in these rankings highlights the importance to AT&T of efforts to improve the quality of service that it offers. For example, Consumer Reports data show that Verizon has the highest ranking of any of the national carriers reported. Verizon Wireless’ estimated monthly customer churn rate is [Begin Confidential Information] [End Confidential Information] percent, [Begin Confidential Information] [End Confidential Information] the industry average of [Begin Confidential Information] [End Confidential Information] percent.¹⁰⁶

93. Data services account for an estimated 35 percent of Verizon Wireless revenue.¹⁰⁷

Verizon Wireless currently provides 3G EV-DO services throughout its footprint and has already

104. See Table 2.

105. JP Morgan, “US Telecom Services and Towers,” January 13, 2011, p. 245.

106. AT&T estimates.

107. Verizon 2010 10-K, p. 104.

introduced LTE service in certain regions. Furthermore, Verizon Wireless has announced plans to offer LTE in areas with a combined population of 200 million by mid-2012 and plans to offer LTE through its entire network footprint by the end of 2013.¹⁰⁸

94. Verizon also continues to benefit from a strong spectrum position and handset portfolio. Verizon Wireless' LTE deployment is based on a nationwide 22 MHz block of 700 MHz spectrum.¹⁰⁹ In contrast, AT&T's LTE deployment will be deployed across blocks of 700 MHz and AWS spectrum, which requires equipping handsets to access both bands, and, as discussed above, in a variety of areas AT&T has little or no 700 MHz or AWS spectrum available for LTE service. With respect to handsets, Verizon Wireless started to offer the iPhone early in 2011 and it also offers a wide range of Android devices.

95. Analysts highlight Verizon Wireless' strong competitive position. JP Morgan, for example, recently concluded that "Verizon is also in a strong position in the wireless space, and postpaid subscriber growth should exceed that of the industry in 2011 due to both its overall network quality and the addition of the iPhone to its handset lineup."¹¹⁰ JP Morgan also recently projected that Verizon's offering of the iPhone will reduce AT&T's share of industry gross adds from 30.7 percent in 3Q10 to 27.4 percent in 2Q11.¹¹¹

Sprint

96. Sprint is a significant competitive presence estimated to have over 50 million wireless subscribers in the U.S.¹¹² After a period in which its national subscriber share has declined, Sprint has rapidly added subscribers in the past year. Analysts expect it to continue to grow due in part to resolution of service quality problems resulting in part from its merger with Nextel and to the fact it has

108. Christopher Declaration, ¶130.

109. <http://news.vzw.com/news/2008/04/pr2008-04-04.html>

110. JP Morgan, "U.S. Telecom Services & Towers", January 13, 2011, p. 7.

111. JP Morgan, "U.S. Telecom Services & Towers", January 13, 2011, p. 35.

112. Based on AT&T estimates for February 2011.

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(i) strong spectrum holdings with its majority ownership interest in Clearwire, which has deployed a 4G/WiMax network in many parts of the U.S.; (ii) an attractive device portfolio; and (iii) an aggressive pricing strategy.

97. Traditionally, Sprint has been a supplier of contract services but has increasingly focused on serving non-contract customers, as reflected in its acquisition of the MVNO Virgin Mobile in 2009 and its operation of Boost Mobile, which was part of Sprint's acquisition of Nextel in 2006. Roughly 15 percent of Sprint revenue is from non-contract services.¹¹³

98. Sprint experienced significant subscriber losses following its merger with Nextel in 2006, which saw its national share decline from 22 percent in 2007 Q3 to 17 percent in 2010 Q3.¹¹⁴ However, this pattern reversed in 2010, during which Sprint Nextel had a net gain of 1.78 million subscribers.¹¹⁵ Sprint states that it "achieved its best total company wireless subscriber additions and net postpaid additions since the first and second quarters of 2006, respectively."¹¹⁶ It further expects "postpaid subscriber net additions for the full year 2011 and to improve total wireless subscriber net additions in 2011, as compared to 2010."¹¹⁷

99. Sprint also has a stronger reputation for service quality than AT&T or T-Mobile USA, generally ranking second among national carriers in customer satisfaction behind Verizon Wireless. In January 2011, Sprint ranked third, after Verizon Wireless and U.S. Cellular, in Consumer Reports overall cellular rating.¹¹⁸ Sprint's monthly churn rate is estimated to be **[Begin Confidential Information]**

113. "Sprint Nextel Reports Fourth Quarter and Full Year 2010 Results," February 10, 2011.

114. UBS, "US Wireless 411," November 16, 2010, p. 13.

115. Sprint earnings press release, http://newsroom.sprint.com/article_display.cfm?article_id=1796.

116. Sprint earnings press release, http://newsroom.sprint.com/article_display.cfm?article_id=1796.

117. Sprint earnings press release, http://newsroom.sprint.com/article_display.cfm?article_id=1796.

118. Consumer Reports website, updated January 2011 (subscription required).

[End Confidential Information] percent, [Begin Confidential Information]

[End Confidential Information].¹¹⁹

100. Data services account for an estimated 28 percent of Sprint's total revenue.¹²⁰ Sprint currently provides 3G EV-DO services throughout its network footprint and is selling WiMax service using the network being deployed by Clearwire, which is 54 percent owned by Sprint.¹²¹ Clearwire has deployed WiMax services in areas that cover 112 million people.¹²² Sprint holds a strong spectrum position, including national licences for SMR spectrum (about 19 MHz), plus a nationwide 10 MHz PCS G block license. Sprint also has extensive additional spectrum through its 1900 MHz holdings and its majority interest in Clearwire. Sprint is also recognized as having a strong device portfolio and aggressive pricing.¹²³

3. Non-Contract/Unlimited Volume Carriers: MetroPCS and Leap/Cricket

101. Two more recent entrants, MetroPCS and Leap, which operates under the Cricket brand, have grown rapidly in recent years following their role in introducing no-contract, "all you can eat" services. The new business model introduced by these firms differed substantially from that historically used by national carriers.

102. Both firms operate in a variety of regions and have been increasing their national network footprint in recent years. MetroPCS and Leap have largely complementary network footprints and have entered into a reciprocal roaming agreement that contributes to their ability to offer near-nationwide pricing without subscribers facing roaming fees. Leap's network operations are concentrated in the Midwest, South and East, while MetroPCS' network operations are concentrated in

119. See Table 2.

120. See Table 2.

121. Sprint 2010 10-K, p. 13.

122. Clearwire 2010 10-K, pp. 3, 26.

123. JP Morgan, "U.S. Telecom Services & Towers," January 13, 2011, p. 21.

the western and northeastern parts of the US as well as Florida, Michigan and northern Texas.¹²⁴

Together, the two firms alone today are estimated to sell service in CMAs covering roughly 203 million people, or roughly two-thirds of the U.S. population.¹²⁵

103. As a result, one analyst notes that the national roaming agreement between MetroPCS and Leap “in essence allows them to form the fifth nationwide carrier.”¹²⁶ Another analyst similarly notes that “[t]his was an essentially costless network expansion for both, since they both had a similar number of covered POPs with minimal overlap – hence, the cost of accommodating the other’s roaming traffic roughly balanced the benefit of being able to double their coverage.”¹²⁷

MetroPCS

104. MetroPCS began offering wireless service in 2002 and has since grown to serve approximately 8 million subscribers today.¹²⁸ MetroPCS offers services “on a no long-term contract, paid-in-advance, flat-rate, unlimited usage basis.”¹²⁹ MetroPCS is estimated to currently have subscribers in 88 CMAs accounting for roughly 110 million people and owns spectrum in an additional 159 CMAs accounting for roughly 35 million people.¹³⁰ MetroPCS provides service in a number of the nation’s largest cities, including New York, Los Angeles, San Francisco, Philadelphia, Boston, Dallas and Miami.¹³¹ It recently launched service in Connecticut.¹³² MetroPCS’ coverage maps indicate that it is

124. <http://www.mycricket.com/coverage/maps/wireless>. MetroPCS 2010 10-K, p. 10.

125. Based on AT&T estimates. Includes CMAs where either firm has at least 0.5% subscriber share.

126. Oppenheimer, “Leap Wireless”, February 6, 2009, p. 17.

127. Bernstein, “Leap Wireless and MetroPCS: The Low End is Where the Action Is”, April 12, 2010, p. 6.

128. <http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-irhome>

129. MetroPCS 2009 Annual Report, p. 5.

130. Based on AT&T estimates. Subscriber areas include CMAs in which MetroPCS has at least 0.5% of subscribers.

131. Based on AT&T estimates.

132. MetroPCS news release, “MetroPCS Expands Northeast Network Coverage with Launch of Wireless Services in Connecticut,” February 1, 2011. MetroPCS’ coverage maps also indicate that it is planning to expand service into areas including Phoenix, AZ, Albany, NY and Santa Fe,

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planning to expand service into areas including Phoenix, AZ, Albany, NY and Santa Fe, NM.¹³³ Through a combination of network facilities and roaming agreements, MetroPCS provides and promotes “Nationwider” pricing which covers voice, text and other basic data service for a flat monthly fee without additional roaming fee for calls made in areas that cover roughly 90 percent of the U.S. population.¹³⁴

105. MetroPCS is estimated to have achieved steady growth in a broad geographic range of areas where it has deployed service.¹³⁵ MetroPCS is estimated to have approximately a **[Begin Confidential Information]** **[End Confidential Information]** percent subscriber share in major areas where it has offered services for more than three years. In some areas, it has achieved even higher shares. MetroPCS is now estimated to account for over **[Begin Confidential Information]**

[End Confidential Information]; and is estimated to have in excess of **[Begin Confidential Information]**

[End Confidential Information].¹³⁶ Based on these estimates, **[Begin Confidential Information]**

[End Confidential Information].¹³⁷

106. MetroPCS has offered voice, text and other data services over its CDMA network and is now deploying LTE throughout its network footprint.¹³⁸ MetroPCS “made the bold business decision to

NM.

133. MetroPCS’ coverage maps and customer service representative.

134. <http://www.metropcs.com/coverage/>. <http://www.metropcs.com/plans/metrousa/faq.aspx>.
<http://www.metropcs.com/plans/default.aspx?tab=family>.

135. Based on AT&T estimates for October 2008 through February 2011.

136. Based on AT&T estimates for February 2011.

137. Based on AT&T estimates for February 2011.

138. Letter from Carl Northrop, on behalf of MetroPCS, to FCC Chairman Julius Genachowski re GN Docket No. 09-191 (Preserving the Open Internet), WC Docket No. 07-52 (Broadband Industry

bypass a migration to EV-DO [3G CDMA] and to leapfrog from 1xRTT all the way to state-of-the-art fourth generation Long-Term Evolution (“LTE” or “4G LTE”) services. Consequently, MetroPCS became the first broadband carrier in the U.S. to launch a commercial 4G LTE service.¹³⁹ MetroPCS now offers LTE service in New York, Los Angeles, San Francisco, Dallas/Fort Worth, Detroit, Philadelphia, Boston, Atlanta, Miami, Las Vegas, Sacramento, Jacksonville, Tampa and Orlando.¹⁴⁰ MetroPCS has announced it will have its entire network footprint covered by early 2012.¹⁴¹

107. MetroPCS is in the process of repositioning itself from a firm exclusively focusing on low-cost voice services into a firm offering a broader set of voice and LTE-based data services, while remaining committed to various types of “all you can eat” pricing models.¹⁴² For example, Deutsche Bank noted in January 2011 that MetroPCS had recently rolled out new smartphone plans for its 4G network, which Deutsche Bank called “the best value for data at the high-end.”¹⁴³ Analysts recognize that MetroPCS’ LTE offerings are likely to further enhance its competitive position. Guggenheim Securities concludes that MetroPCS’ LTE service “will continue to drive subscriber growth, lower churn, and higher ARPU in 2H11, as customers increasingly shift to datacentric rate plans at higher price points.”¹⁴⁴

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- Practices), February 14, 2011, pp 3-4.
139. Letter from Carl Northrop, on behalf of MetroPCS, to FCC Chairman Julius Genachowski re GN Docket No. 09-191 (Preserving the Open Internet), WC Docket No. 07-52 (Broadband Industry Practices), February 14, 2011, p. 3-4.
140. Letter from Carl Northrop, on behalf of MetroPCS, to FCC Chairman Julius Genachowski re GN Docket No. 09-191 (Preserving the Open Internet), WC Docket No. 07-52 (Broadband Industry Practices), February 14, 2011, p. 2.
141. Transcript of MetroPCS at Raymond James Institutional Investors Conference, March 7, 2011.
142. Letter from Carl Northrop, on behalf of MetroPCS, to FCC Chairman Julius Genachowski re GN Docket No. 09-191 (Preserving the Open Internet), WC Docket No. 07-52 (Broadband Industry Practices), February 14, 2011, p. 2.
143. Deutsche Bank, “Deutsche Bank, “MetroPCS Comm. – Increasing 4Q10 Net Adds on Positive Channel Checks,” January 4, 2011, p. 1.
144. Guggenheim Securities, “MetroPCS Communications, Inc.”, November 10, 2010, p. 2.

Leap/Cricket

108. Leap Wireless offers service under the Cricket brand name in 35 U.S states and the District of Columbia. Like MetroPCS, Leap focuses on providing no-contract, unlimited services.¹⁴⁵ It holds spectrum in 35 of the 50 largest markets and has announced a variety of potential expansion scenarios.¹⁴⁶ At year end 2010, Leap served 5.5 million subscribers.¹⁴⁷ In December 2010, Leap is estimated to have subscribers in 135 CMAs accounting for 102 million people and has spectrum in an additional 391 CMAs accounting for another 94 million people.¹⁴⁸ Leap is estimated to have achieved a subscriber share of **[Begin Confidential Information]** **[End Confidential Information]** in 26 DMAs including **[Begin Confidential Information]**

[End Confidential Information]¹⁴⁹ Leap's share of subscribers is estimated to exceed that of **[Begin Confidential Information]**

[End Confidential Information]. Leap also provides service in other major metropolitan areas, including Portland, San Diego, St. Louis, Milwaukee, Chicago, Washington DC, and Philadelphia.

109. Leap is also competing to attract data-oriented subscribers, and a Leap executive recently noted that "10 percent of Leap's customer base moved to smartphones in the carrier's fourth quarter, and that fully 40 percent of the carrier's new customers choose smartphones [...] Now we're committed to the smartphone category."¹⁵⁰ Leap has announced that it is testing 4G services and that it

145. Leap 2010 10-K, p. 2.

146. Leap 2010 10-K, p. 3, <http://phx.corporate-ir.net/phoenix.zhtml?c=95536&p=irol-homeprofile>

147. <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODI3OTI8Q2hpbGRJRd0tMXxUeXBIPtM=&t=1>, <http://investing.businessweek.com/research/stocks/snapshot/snapshot.asp?ticker=LEAP:US>.

148. Based on AT&T estimates. Areas with subscribers based on areas where Leap has at least 0.5% subscriber share.

149. Based on AT&T estimates.

150. <http://www.fiercewireless.com/ctialive/story/leap-plans-wi-fi-only-viewsonic-android-tablet->

recently entered into a 4G roaming agreement with LightSquared that will allow it to offer service beyond its current footprint.¹⁵¹

Competitive Position

110. The competitive importance of MetroPCS and Leap is reflected in the adoption by the national carriers of “all you can eat” services of the type pioneered by these firms.¹⁵² Today, “all you can eat” carriers are increasingly successful in attracting subscribers from the national carriers. Deutsche Bank, for example, recently noted that a significant driver of MetroPCS’ new customers is an influx of former contract customers from larger carriers: “We believe these consumers, who are typically no longer on contract, are porting their numbers to [MetroPCS] once they recognize the value proposition offered by unlimited month-to-month usage and near-nationwide coverage for an all-in flat rate.”¹⁵³ Deutsche Bank further noted that MetroPCS “disclosed with its 3Q10 results that 1/3rd of its gross adds were former post-paid subs, and we believe this share could increase as PCS rolls out new attractive handsets.”¹⁵⁴

111. AT&T and T-Mobile USA estimates indicate that, on-net, all-you-can-eat carriers, principally MetroPCS and Leap have, **[Begin Confidential Information]**

[End Confidential Information]. The success of AYCE carriers in achieving a

-
- more-android-smartphones/2011-03-24.
151. LightSquared Press Release, “Cricket Enters into 4G Roaming Agreement with LightSquared” March 22, 2011.
152. The FCC states that national carriers first introduced “all you can eat” plans in 2007, noting that “number of smaller and regional carriers, like Leap and MetroPCS, have been offering unlimited local calling plans for years.” Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Twelfth Report, FCC 08-28, ¶113.
153. Deutsche Bank, “MetroPCS Comm, Increasing 4Q10 Net Adds on Positive Channel Checks,” January 4, 2011, p. 5.
154. Deutsche Bank, “MetroPCS Comm. – Increasing 4Q10 Net Adds on Positive Channel Checks,” January 4, 2011, p. 1.

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[End Confidential Information].

4. Multi-Area and Regional Competitors

U.S. Cellular

112. U.S. Cellular offers service in 26 states, and had 6.1 million subscribers at year end 2010.¹⁵⁵ Unlike MetroPCS and Leap, 95 percent of U.S. Cellular's subscribers are contract customers.¹⁵⁶

US Cellular has its [Begin Confidential Information]

[End Confidential Information]. Major DMAs served by U.S. Cellular include Madison, WI; Milwaukee, WI; Chicago, IL; Oklahoma City, OK; and St. Louis, MO.¹⁵⁷

113. U.S. Cellular provides EV-DO coverage over 98 percent of its subscriber footprint.¹⁵⁸ In November 2010, U.S. Cellular announced that it would launch an LTE test market in late 2011 and is planning for full-scale deployment in 2012.¹⁵⁹ Like MetroPCS and Leap, U.S. Cellular plans provide subscribers with near-nationwide pricing without facing additional roaming fees.¹⁶⁰

Cellular South

114. Cellular South, Inc. is a facilities-based wireless carrier offering service in the southeastern part of the United States.¹⁶¹ Cellular South serves roughly 880,000 subscribers¹⁶² and

155. U.S. Cellular 2010 Annual Report, p. 1.

156. U.S. Cellular 2009 Annual Report, p. 1.

157. Based on AT&T estimates.

158. U.S. Cellular 2010 10-K, p. 6. Data are as of the end of 2010.

159. <http://www.fiercewireless.com/story/us-cellular-plans-lte-test-vendor-selection-next-year/2010-11-10>

160. <http://www.uscellular.com/uscellular/plans/showPlanDetails.jsp?productId=prod10030>

161. FCC, 14th CMRS Report, ¶129.

162. Petition to Deny of Cellular South, Inc., in re Application of AT&T Mobility Spectrum LLC and Qualcomm Incorporated for Consent to Assign Eleven Lower 700 MHz Band Licenses, FCC DA 11-252 WT Docket No. 11-18, p. 1.

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operates a CDMA based network.¹⁶³ It has announced plans to deploy LTE services launching in 4Q 2011.¹⁶⁴ In 2008, the company purchased 700 MHz licenses for \$192 million that will allow it to cover virtually all of Mississippi and Tennessee and most of Alabama.¹⁶⁵ Cellular South has announced plans on using this spectrum to develop LTE technology in the future, launching service in 4Q 2011.¹⁶⁶ Cellular South, like the other carriers discussed, offers national calling.¹⁶⁷

Others

115. Other regional carriers include Cincinnati Bell, which operates in the Cincinnati and Dayton Ohio areas and is estimated to serve more than 500,000 subscribers; Atlantic Tele-Network, which includes assets acquired from former ALLTEL properties, serves roughly 700,000 subscribers in 6 states and offers wholesale services in 14 states; and nTelos which serves roughly 430,000 subscribers in Virginia, West Virginia and neighboring states.¹⁶⁸ Each of these firms offers near-nationwide pricing plans in which subscribers do not pay roaming charges for most calls made outside the carriers' service area.¹⁶⁹

163. <http://www.cellularsouth.com/aboutus/History-Timeline.html>

164. <http://www.cellularsouth.com/aboutus/index.html>. "Cellular South announces strategic alliance with Samsung Telecommunications to build LTE 4G high-speed wireless broadband data network infrastructure", undated, company news release.

165. <http://www.cellularsouth.com/aboutus/index.html>

166. <http://www.cellularsouth.com/aboutus/index.html>. "Cellular South announces strategic alliance with Samsung Telecommunications to build LTE 4G high-speed wireless broadband data network infrastructure", undated, company news release.

167. https://www.cellularsouth.com/cscommerce/products/plans/product_plan_details.jsp?id=prod23120023#disclaimer_info

168. Based on AT&T estimates. Atlantic Tele-Network 2010 10-K, pp. 3-4.

169. nTelos offers its nationwide calling to its contract and some non-contract customers, through a wholesale agreement with Sprint, as well as offering local plans. (nTelos 2010 10K, pp. 5-6). Cincinnati Bell offers nationwide pricing for contract customers. (Conversation with Cincinnati Bell customer service representative, April 13, 2011). Atlantic Tele-Networks offers near-nationwide coverage through reciprocal roaming arrangements with other wireless carriers. (Atlantic Tele-Networks 2010 10K, p. 4).

5. LightSquared, Clearwire and future entrants

116. LightSquared is entering into the provision of wireless service with a “greenfield” network deploying a near-national LTE network which it plans to use as a wholesale supplier to MVNOs and other carriers wishing to expand their LTE network footprint.¹⁷⁰ Like newer firms such as MetroPCS and future entrants, LightSquared has the ability to “leapfrog” carriers, which must continue to serve incumbent subscribers using “last generation” technologies.

117. LightSquared holds licenses nationwide for 59 MHz of spectrum in the MSS/ATC (1.6 GHz) band.¹⁷¹ It is currently constructing a national LTE network and has announced that its network will consist of at least 40,000 cell sites covering approximately 260 million people by 2015, more than 80 percent of the U.S. population.¹⁷² LightSquared is currently “conducting LTE trials in Baltimore, Denver, Las Vegas and Phoenix, with commercial launches planned by the third quarter of this year.”¹⁷³ It has secured \$14 billion over the next 8 years to finance construction of its network.¹⁷⁴

118. LightSquared recently entered into an agreement that allows Leap to have LTE roaming on LightSquared’s service, and has also entered into a deal that allows Best Buy to sell LightSquared’s network as a Mobile Virtual Network Operator (MVNO).¹⁷⁵ LightSquared’s CEO has stated that “LightSquared’s wholesale economic model opens up the service to companies who never thought

170. “LightSquared - Nationwide LTE Broadband Network”, available at <http://www.lightsquared.com/what-we-do/network/>.

171. http://www.fiercewireless.com/ctialive/story/lightsquared-inks-wholesale-lte-deal-leap-wireless/2011-03-22?utm_medium=nl&utm_source=internal

172. “LightSquared - Nationwide LTE Broadband Network”, available at <http://www.lightsquared.com/what-we-do/network/> Population coverage is calculated based on current U.S. population of 311 million people, per the U.S. Census Bureau’s Population Clock. <http://www.census.gov/main/www/popclock.html>.

173. <http://fiercewireless.com/story/report-lightsquared-contemplates-ipo-summer/2011-04-12>

174. <http://www.lightsquared.com/press-room/press-releases/lightsquared-announces-additional-financing/>. http://reviews.cnet.com/8301-12261_7-20046208-10356022.html.

175. http://www.lightreading.com/document.asp?doc_id=205971&f_src=lightreading_gnews

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about offering wireless before.”¹⁷⁶ He also stated that LightSquared is talking to many potential wholesale customers including Time Warner Cable “and 15 of those are at a stage where we are negotiating contracts with our customers.”¹⁷⁷

119. Clearwire has deployed a WiMax network covering 112 million people, including major metropolitan areas such as Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, New York, San Francisco and Washington, D.C.¹⁷⁸ Clearwire uses WiMax technology to offer portable wireless broadband data services that are typically accessed by connected devices and data cards. Clearwire also offers voice services using voice-over-Internet-Protocol (VoIP) technology over its WiMax network. Clearwire sells its service on a retail basis under the “Clear” brand and also provides wholesale services to Sprint and other carriers.

120. LightSquared, Clearwire and entrants that hold unused spectrum -- including SpectrumCo, which is owned by major cable MSOs Comcast, Time Warner and Brighthouse,¹⁷⁹ or cable companies such as Cox operating independently -- have the ability to “leapfrog” existing carriers by deploying the most current technology thus avoiding problems faced by incumbent carriers that must continue to dedicate assets and spectrum to existing subscribers using “last generation” technology. Similarly, future competitors will be able to deploy whatever “next generation” technology is available when the FCC auctions additional spectrum for wireless use.

176. Dow Jones News Service, “LightSquared Signs Best Buy to Wholesale Wireless Agreement”, March 23, 2011.

177. <http://www.rethink-wireless.com/2011/04/13/lightsquared-considering-ipo-summer-reports.htm>; <http://mcommerce.roamdata.com/?p=44471>.

178. Clearwire 2010 10-K, pp. 2, 8.

179. <http://www.dailywireless.org/2007/08/01/sprint-exits-spectrumco/>

C. T-MOBILE USA'S COMPETITIVE SIGNIFICANCE WILL LIKELY DECLINE IN THE ABSENCE OF THE PROPOSED TRANSACTION

121. T-Mobile USA is the fourth largest carrier nationally, serving roughly 34 million subscribers, or about 11 percent of national subscribers.¹⁸⁰ Available data indicate, and analysts recognize, that T-Mobile USA is likely to become a less significant competitor in the future in the absence of the proposed transaction.

122. T-Mobile USA's monthly churn rate is **[Begin Confidential Information]** **[End Confidential Information]** than that of all other carriers for both contract and non-contract services. As shown in Table 2, T-Mobile USA's churn among contract customers in 4Q 2010 was **[Begin Confidential Information]** **[End Confidential Information]** percent, while AT&T's was **[Begin Confidential Information]** **[End Confidential Information]** percent; T-Mobile USA's churn among non-contract customers was **[Begin Confidential Information]** **[End Confidential Information]** percent, while AT&T's was **[Begin Confidential Information]** **[End Confidential Information]** percent. Overall, monthly churn among T-Mobile USA customers was **[Begin Confidential Information]** **[End Confidential Information]** percent, **[Begin Confidential Information]** **[End Confidential Information]** that for MetroPCS, which exclusively serves non-contract customers.¹⁸¹ Consumer surveys show that T-Mobile USA subscribers report overall satisfaction ratings below those reported for Verizon Wireless and Sprint.

180. "T-Mobile USA Reports Fourth Quarter 2010 Results," February 25, 2011.

181. Analysts also note T-Mobile USA's higher churn rates. Current Analysis estimated in January 2018 that "T-Mobile's high total churn, 3.4% at the end of Q3 2010[,] is significantly higher when compared to national carriers such as Verizon Wireless and AT&T. This can be attributed to its customer base, which is more value oriented and now overwhelmingly skewed toward prepaid for net additions." Current Analysis, "Company Assessment: T-Mobile USA," January 18, 2011, p. 5.

Mobile USA's share is estimated to have fallen from [Begin Confidential Information] [End Confidential Information] percent to [Begin Confidential Information] [End Confidential Information] percent over the same period.

Figure 6 [Begin Confidential Information]

[End Confidential Information]

127. Analysts attribute T-Mobile USA's declining share to past delays in upgrading its network from GSM to UMTS/HSPA/HSPA+ and the absence of plans to deploy LTE. Nearly three years ago, HSBC noted that T-Mobile USA "... is one of the last developed market operators to launch 3G services (as it was spectrum constrained until the 2006 AWS auctions). [...] [W]e believe it will eventually struggle to compete with larger and more technologically advanced rivals like Verizon Wireless and AT&T."¹⁸⁴ Credit Suisse noted more recently that "T-Mobile's delay in upgrading to 3G led to a rapid decline in the business."¹⁸⁵

184. HSBC, "Deutsche Telekom," Dominik Klarmann and Madeleine King, August 14, 2008, p. 7-8.

185. Credit Suisse, "CS Telecom Services: The Time for Wireless Consolidation is Here," July 19, 2010, p. 10.

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128. T-Mobile USA's lack of any clear path to providing LTE is likely to further limit its future competitive significance. Analysts recognize both that (i) LTE is critical to remaining a competitive supplier given the dramatic projected growth in demand for data services and (ii) that T-Mobile USA is poorly positioned to deploy these services. Oppenheimer, for example, states that "[w]e expect 4G to dominate the agenda for wireless carriers for the next 5-10 years ... 4G wireless networks will be built using LTE technologies which will have speeds that are at least 3x those of 3G and will be a major differentiator for the wireless carriers with good LTE coverage."¹⁸⁶

129. At the same time, analysts recognize that T-Mobile USA does not currently have sufficient spectrum to provide LTE services. Credit Suisse notes that for T-Mobile USA to remain competitive in the U.S. market it will "require upgrading to LTE at some point. [...] T-Mobile will eventually have to upgrade to LTE; however, they don't have enough spectrum to manage the upgrade, and lack ready access to capital required to purchase spectrum ... T-Mobile will likely need more spectrum to cope with capacity required by HSPA+, even if they don't upgrade to LTE."¹⁸⁷ Credit Suisse further observes that "[s]ub declines may continue if competitors offer 4G and T-Mobile does not."¹⁸⁸

130. T-Mobile USA's competitive position is probably best summarized in J.P. Morgan's recent comment that T-Mobile USA "is struggling for relevance."¹⁸⁹ Morgan Stanley has reached a similar conclusion, noting that T-Mobile USA's "pricing strategy is exposed at the low-end to challengers,

186. Oppenheimer, "Sprint Nextel Reports of DT-S Negotiations over T-Mobile USA," March 8, 2011, pp. 2.

187. Credit Suisse, "CS Telecom Services: The Time for Wireless Consolidation is Here," July 19, 2010, p. 10-11.

188. Credit Suisse, "CS Telecom Services: The Time for Wireless Consolidation is Here," July 19, 2010, p. 15.

189. JP Morgan, "U.S. Telecom Services & Towers," January 13, 2011, p. 18.

such as Leap and Metro, while high ARPU subs are targeted by AT&T and Verizon's higher quality positioning.”¹⁹⁰

131. As the discussion above indicates, T-Mobile USA's competitive significance is likely to decline in the absence of the proposed transaction. As a result, its current subscriber share of roughly **[Begin Confidential Information] [End Confidential Information]** percent overstates its future competitive significance.

V. CONCERNS ABOUT PRICE INCREASES DUE TO UNILATERAL AND COORDINATED EFFECTS DO NOT APPLY GIVEN THE EXPANSION IN OUTPUT EXPECTED DUE TO THE PROPOSED TRANSACTION.

A. EVALUATION OF THE COMPETITIVE EFFECTS OF THE PROPOSED TRANSACTION MUST ACCOUNT FOR HOW THE TRANSACTION WILL LOWER THE HIGH COSTS FACED BY AT&T AND T-MOBILE USA IN EXPANDING CAPACITY AND OUTPUT.

132. As discussed above, AT&T and T-Mobile USA are facing capacity constraints or, equivalently, high costs of expanding output in many areas they serve. For wireless firms operating at or near capacity, the cost of serving additional customers without degrading the quality of service provided can include the cost of deploying new cell sites, moving traffic off the network using WiFi or similar technologies, redeploying spectrum to use more efficient technologies and/or adding new spectrum to the network. While wireless firms operating at or near capacity may be able to add subscribers without altering other aspects of their network, doing so to any material extent would lower service quality by generating higher rates of blocked and dropped calls and decreasing the speed of data services. Reductions in service quality are equivalent to an increase in the “quality-adjusted” price faced by subscribers.

190. Morgan Stanley, “Deutsche Telekom US Options – No Easy Way Out,” January 10, 2011, p. 3.

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133. As explained above, the proposed transaction will enable the merged firm to expand capacity or, equivalently, reduce the cost of expanding capacity and output by (i) expanding the number of areas in which spectrally-efficient LTE services will be deployed; (ii) increasing the amount of spectrum on which it will be deployed; (iii) creating a denser network with additional cells that increase aggregate capacity; (iv) increasing spectrum available to provide service by consolidating redundant network control functions; (v) increasing network capacity by consolidating less efficient GSM services and expanding spectrum dedicated to more efficient UMTS/HSPA/HSPA+ services; and (vi) increasing the efficiency of existing spectrum through “channel pooling” efficiencies.

134. The increase in the combined capacity of the AT&T and T-Mobile USA networks that will result from the proposed merger will lower the cost of serving additional subscribers and thus create incentives to expand output and lower prices relative to the levels expected in the absence of the transaction. Especially in light of the large projected increases in demand for data services documented above and the merged firm’s business plans discussed below, it is reasonable to conclude that the merged firm would find it profitable to utilize its increased capacity to increase output above the levels expected in the absence of the proposed transactions.

135. AT&T’s post-merger business plans are to expand output. David Christopher, AT&T’s Chief Marketing Officer, also describes the importance of AT&T expanding capacity to enable the firm to increase sales and maintain competitive pressure against other wireless carriers through continued innovation and improved quality. As he explains, the increased quality of service resulting from the proposed transaction increases AT&T’s ability to provide high quality and innovative services, which both increase network utilization by existing customers and attracting new ones.¹⁹¹ Similarly, John Donovan, AT&T’s Chief Technology Officer, describes in his declaration a variety of the innovations and

191. Christopher Declaration, ¶180.

services AT&T is planning on offering in the future assuming that it has the “spectrum assets necessary to meet consumers’ soaring demand for mobile broadband.” However, he cautions that “virtually all of the most exciting and innovative possibilities [being pursued by AT&T] over the near and medium term will require increased network capacity.”¹⁹²

136. AT&T’s goals are consistent with the large investments it has made over recent years to upgrade its network. Between 2008 and 2010, AT&T invested in improving and expanding its wireless network as well as **[Begin Confidential Information]** **[End Confidential Information]** on additional spectrum purchases.¹⁹³

B. TYPICAL “UNILATERAL EFFECTS” CONCERNS DO NOT APPLY TO THE PROPOSED TRANSACTION GIVEN THE CAPACITY CONSTRAINTS FACED BY AT&T AND T-MOBILE USA AND THE INCREASED CAPACITY RESULTING FROM THE TRANSACTION.

137. It is well recognized that mergers of firms that produce differentiated products can give rise to concerns that the merged firm will find it profitable to increase price unilaterally (e.g., without actions by any other firm).¹⁹⁴ However, if one misapplies standard unilateral effects models based on the assumptions that output can be readily expanded at constant cost and that there is no expansion of capacity resulting from a merger, then one can obtain misleading results about the likelihood that the proposed merger will result in higher prices in the wireless industry.

138. Concerns about “unilateral effects” of mergers are based on the observation that the producer of a differentiated good or service that raises price will lose some customers to rival firms that produce imperfect substitutes. The extent of such losses limits the amount that a firm can profitably raise price. A merger between firms that produce substitutable differentiated products implies that

192. Donovan Declaration, ¶¶15-16.

193. AT&T Annual Reports, 2010, p. 71, 2008, p. 60 and AT&T estimates.

194. See, for example, Joseph Farrell and Carl Shapiro, “Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition,” February 2010.

some customers that otherwise would be lost to rivals following a price increase will be recaptured by the merger partner's product. This increases the merging firms' incentive to raise price relative to that in the absence of the merger. The unilateral incentive to raise price is generally greater when the merging brands are closer substitutes, which implies that a larger share of sales lost as the result of a price increase is recaptured by the merged brand. The unilateral incentive to raise price is also affected by the margin earned on the recaptured sales. The incentive of a merged firm to raise price is generally greater the larger the incremental profit generated by a recaptured customer.

139. Most analyses of unilateral effects are done under the assumption that firms face no capacity constraints.¹⁹⁵ If this assumption does not hold and if instead the merger increases the combined capacity of the firm, then it is consistent with economic theory that the merged firm increases its profits by expanding output. To see this point, consider a simple example in which an industry consists of only two firms which are both operating at capacity (e.g., facing a vertical marginal cost curve). If demand is sufficiently strong, the merged firm will produce exactly the same industry output as was produced pre-merger. Moreover, if the merger allows an expansion of capacity, as here, then industry output can rise post-merger and prices fall.¹⁹⁶ Exactly the same situation can occur with rising marginal cost curves replacing the vertical marginal cost curve.¹⁹⁷

195. The FCC's Chief Economist Jonathan Baker noted in a recent paper that that "[i]n practice, unilateral effects most commonly arise from mergers among firms that sell differentiated products without binding capacity constraints." Jonathan B. Baker, "Merger Simulation in an Administrative Context," February 22, 2011, p. 5 (available at <http://ssrn.com/abstract=1790943>).

196. It is also possible that when firms face capacity constraints, the incentive to restrict output as a result of a merger can outweigh the incentive to expand output that results from merger-related reductions in marginal cost. Thus, neither this example nor our analysis would provide support for the view that a merger to monopoly in this wireless industry would be desirable. In light of the structure of the wireless industry that will remain after this merger, and AT&T's incentives and plans to use the expanded capacity made possible by the transaction to improve service to subscribers and expand output, any merger-related incentive to restrict output is outweighed by the merger-related incentive to expand output due to reductions in marginal costs. As this

140. Therefore, it would be incorrect to conclude that in this industry unilateral effects analysis would predict that after the transaction prices will rise and output will fall. Concerns about unilateral effects are mitigated or eliminated when (i) firms face rising marginal costs of expanding output; (ii) firms face strong demand (so firms operate on the steep or vertical portion of the marginal cost curve); and (iii) mergers result in synergies that increase capacity or, equivalently, reduce marginal costs of expanding output. As documented in the previous sections, these are precisely the circumstances that arise in the proposed transaction: (i) both AT&T and T-Mobile USA face sharply rising marginal costs of expanding output and are operating at or near capacity; (ii) demand is projected to continue to expand rapidly, with the FCC acknowledging that the industry faces significant spectrum constraints; and (iii) the proposed merger promises to result in engineering-based synergies that will increase network capacity.

141. If one misapplies standard models based on the assumptions that output can be readily expanded at constant cost and that there is no expansion of capacity resulting from a merger, then one can obtain misleading results about the likelihood that the proposed merger will result in higher prices in the wireless industry. This is also true if one uses the Upward Pricing Pressure (UPP) framework referenced in the recent revision to the Horizontal Merger Guidelines, which is used by some as an initial approximation of a merger's unilateral effect on the incentive to raise price. The two key components of UPP are the "diversion ratio" and the "price cost margin." The diversion ratio reflects the amount of sales that would be diverted to a merger partner's brand. The price/cost margin reflects the

suggests, the facts of each situation, including the business incentives and plans, need to be examined in analyzing any merger.

197. For example, even a monopolist that realizes an outward shift in its marginal cost curve will expand output and lower price.

incremental profitability of subscribers that would be recaptured as a result as result of a merger-related price increase.

142. There are a number of reasons that the standard UPP framework cannot be applied to this transaction. Perhaps most importantly, price/cost margins used in UPP and other merger simulations models to approximate the profitability of recaptured customers are often calculated based on accounting measures of *average variable costs*. However, the underlying economic logic of unilateral effects models depends on the *marginal* cost of serving additional subscribers, which is likely to be much higher than *average variable costs* when firms are operating at or near capacity. The marginal cost of serving additional wireless subscribers can include costs associated with deployment of new cell sites, deployment of WiFi facilities to offload traffic, acquisition of new spectrum, etc. The use of accounting data on average variable costs instead of economic data on marginal costs will overstate the profitability of diverted sales and thus overstates the “upward pricing pressure” from the proposed transaction.

143. The standard UPP framework also does not readily account for the expansion in capacity that will result from a merger. As discussed above, the proposed transaction will expand capacity and lower the cost of serving new customers, creating incentives for the merged firm to increase output. The increase in output results in an unambiguous benefit by lowering prices to consumers relative to those that would be observed in the absence of the proposed transaction.

144. In addition, the standard UPP framework would not account for AT&T’s permitting consumers on existing T-Mobile USA pricing plans to continue to obtain service under those plans. As a result, a substantial group of subscribers would have no prospect of facing a merger-related price increase.¹⁹⁸

198. New subscribers that might have selected the T-Mobile USA brand in the absence of the proposed transaction instead will continue to have access to their next best alternative as well as access to an AT&T network capable of delivering higher quality services than otherwise would

145. In addition to the role of capacity constraints and expanded capacity in mitigating concerns about unilateral effects, the substantial differences in the characteristics of AT&T and T-Mobile USA subscribers further reduce this concern. As noted above, concerns about unilateral effects are greatest when the merging firms produce products that are close substitutes. However, the differences in subscriber characteristics summarized in Table 2 above indicate that AT&T and T-Mobile USA are not especially close substitutes: (i) data services account for a substantially smaller share of data revenue for T-Mobile USA compared to AT&T; (ii) non-contract subscribers are more important for T-Mobile USA than for AT&T; (iii) T-Mobile USA customers are typically **[Begin Confidential Information]** **[End Confidential Information]** and have **[Begin Confidential Information]** **[End Confidential Information]** than AT&T customers; and (iv) enterprise customers account for a larger share of AT&T wireless revenue compared to T-Mobile USA.

C. TYPICAL “COORDINATED EFFECTS” CONCERNS DO NOT APPLY TO THE PROPOSED TRANSACTION GIVEN THE CAPACITY CONSTRAINTS FACED BY AT&T AND T-MOBILE USA, THE EXPANSION OF CAPACITY CREATED BY THE MERGER, AS WELL AS OTHER INDUSTRY CHARACTERISTICS.

146. It is well recognized that mergers give rise to the concern that the reduction in the number of firms in the industry may facilitate “coordination” in pricing and output decisions.¹⁹⁹ “Coordinated effects” concerns reflect the view that a reduction in the number of firms in an industry reduces the likelihood that a firm will deviate from coordinated pricing and output decisions because their actions will be detected and punished by rivals. The increased likelihood of coordination increases the likelihood of higher prices.

be available.
199. See, for example, Dennis Carlton and Jeffrey Perloff, Modern Industrial Organization (4th Edition), Chapters 5 (cartels), 6 (oligopolies) and 19 (antitrust policy).

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147. Concerns about coordinated effects are reduced when firms operate at or near capacity and face strong demand, just as these circumstances limit concerns about unilateral effects. Moreover, concerns about the impact of a merger on coordinated interactions between firms are reduced in industries in which firms vary with respect to the costs of expanding output. A merger which lowers AT&T/T-Mobile USA's cost of expanding capacity provides incentives for it to expand output. At the same time, other firms in the industry are likely to face much different costs associated with expanding output given their varying spectrum holdings and subscriber characteristics. These differences create significant differences among firms with respect to their incentive to coordinate their actions with other firms in the industry.

148. Similarly, diversity of firms and business strategies in the wireless industry further reduces concerns about the proposed transaction resulting in coordinated effects. The FCC's traditional coordination analysis concerns focus on the following industry factors: (i) the homogeneity of firms and services, with greater homogeneity leading to increased risks of coordinated effects; (ii) the transparency of pricing information, with greater transparency increasing concerns about coordinated effects; and (iii) the scope of technological change, with more rapid changes implying greater coordination difficulties among firms due to their divergent long-term interests.²⁰⁰

149. Evaluation of each of these factors highlights the difficulty of coordinated interaction in the wireless industry. *First*, as discussed in Section IV above, wireless firms today have highly diverse business strategies. Some, including AT&T and Verizon Wireless, focus principally on contract subscribers served through multi-year contracts. Others, including MetroPCS and Leap, focus almost exclusively on non-contract subscribers served on a month-to-month basis. Others, including Sprint and

200. See, for example, FCC, Memorandum Opinion and Order and Declaratory Ruling, Verizon Wireless/ALLTEL, FCC 08-258, November 10, 2008, ¶190.

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T-Mobile USA, operate somewhere in between. Differences among carriers extend to pricing strategies with different firms (such as MetroPCS and Leap) focusing on plans that provide unlimited voice and data services; while carriers such as Verizon Wireless, Sprint Nextel and T-Mobile USA offer unlimited data services but a range of plans with different “buckets” of voice minutes and texts. AT&T, however, offers tiered pricing for data services for new customers along with different buckets of voice minutes and texts. There are further differences in carriers’ interests due to their mix of enterprise/non-enterprise customers and the mix of subscribers with respect to data usage.

150. *Second*, the large number of multi-dimensional service plans available from each carrier means that pricing is complex, further reducing concerns about coordinated effects. Each carrier offers multiple plans that involve different numbers of minutes and texts at different price points and plans differ across carriers with respect to the availability of “free” night and weekend calling (that does not count against plan minutes); “free” on-net calling; the availability of family plans which permit additional lines at reduced rates; as well as the availability and size of handset subsidies. Firms also differ with respect to a variety of other factors including the size of termination fees, roaming coverage, international rates, service quality, etc. Coordination is further complicated by the fact that carriers do not publish information on the number of subscribers that adopt various plans, making it difficult for carriers to monitor their rivals’ activities.

151. *Third*, the rapid and on-going changes in wireless technology reduce concerns that the proposed transaction will result in coordinated effects. Changes in technology and services that can be provided over wireless networks create strong incentives for firms to be early providers of new services. As mentioned above, AT&T is currently promoting its service that enables subscribers to simultaneously transmit voice and data. Customers attracted by new technologies and services can persist over time, increasing coordination difficulties across firms. At the same time, as discussed above, there are

important differences across firms with respect to their ability to roll out new technologies given differences in spectrum holdings and in the number of subscribers served with “past generation” technologies.

152. *Fourth*, differences in the geographic coverage of wireless networks create diverse interests among carriers and thus further reduce concerns about the potential for coordinated effects. Carriers’ spectrum holdings differ across geographic areas, with the amount of spectrum allocated to different services (e.g., GSM, UMTS/HSPA+, LTE) differing across areas for a given carrier. At the same time there are important differences across carriers with respect to the amount of spectrum held and the utilization of the spectrum. Coordination is further complicated by the fact that there are a variety of non-national carriers serving different regions and the share of subscribers in a region accounted for by the non-national carriers varies widely. As this suggests, non-national carriers face different incentives with respect to coordinating with or deviating from actions taken by other firms.

D. THE TRANSACTION DOES NOT ELIMINATE A MAVERICK FROM THE WIRELESS INDUSTRY.

153. In previous merger reviews, the FCC has highlighted concerns about transactions that remove a “maverick” from the marketplace. The FCC defines mavericks as “firms that have a greater economic incentive to deviate from the terms of coordination than do most of their rivals (e.g., firms that are unusually disruptive and competitive influences in the market).” It further expands on the definition with specific reference to wireless providers:

In the context of U.S. mobile telephony markets, maverick carriers may be identified by the innovative pricing plans or services they introduce. The enhanced incentive to deviate may arise because the maverick carrier controls substantially more spectrum than it needs to serve the demands of its currently limited customer base, and also because its costs of expanding sales in the relevant market are relatively low and (or) it is well positioned to attract customers currently served by its competitors. Such a carrier has a strong incentive to deviate because it receives less benefit from the higher

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coordinated prices than do carriers with larger market shares and is well positioned to profit from expanding its sales.²⁰¹

154. T-Mobile USA would not be characterized as a maverick as defined by the FCC. For example, T-Mobile USA has indicated that it is facing spectrum constraints and we are not aware of any other special cost advantage enjoyed by T-Mobile USA that would enable it to act as a maverick.^{202 203} Moreover, T-Mobile USA cannot be considered a maverick by virtue of having introduced innovative pricing plans. For example, the FCC's annual reports summarizing the state of wireless competition and merger decisions identify major pricing and service innovations since 1998. Notably, none of the pricing innovations identified by the FCC were introduced by T-Mobile USA. The pricing and service innovations identified in our review of FCC documents include:

- **AT&T Digital One Rate Plan (1998):** "AT&T Wireless's Digital One Rate ("DOR") plan, introduced in May 1998, is one notable example of an independent pricing action that altered the market and benefited consumers."²⁰⁴
- **AT&T Family Plans (1999):** "These plans allow a family to establish an account with a certain number of family members within the same calling area. Each family member [...] can make unlimited calls to the other wireless numbers on the account and to and from the family's home number [...] This type of family plan was first introduced by AT&T in the third quarter of 1999, and SBC Communications has since instituted its own such plan called 'FamilyTalk.'"²⁰⁵

201. FCC, Memorandum Opinion and Order, Cingular/AT&T, FCC 04-255, October 26, 2004, ¶160.

202. Larsen Declaration, ¶10.

203. In published work, FCC Chief Economist Jonathan Baker identifies firm-specific differences in marginal costs as a key factor that enables a firm to act as a maverick: "Some factors likely affecting the market price preferred by the maverick are firm specific. For example, a firm's marginal costs may rise or fall for reasons related to the nature or location of its production processes, and in consequence may not be paralleled by cost changes affecting its rivals." Jonathan Baker, "Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws," 135 *New York University Law Review* 135 (2002), at 174.

204. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Eighth Report*, FCC 03-150, ¶94.

205. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial

- **Sprint PCS and Verizon Wireless free on-net roaming (2002):** “Another trend in mobile telephone pricing has been the introduction of on-network, or “on net,” national pricing plans. [...] Sprint PCS, which permits off-net roaming, has allowed free on-net national roaming with its pricing plans for many years. In January 2002, Verizon Wireless began to offer its own on-net national plans, under the name ‘America’s Choice.’”²⁰⁶
- **Cingular’s free nights and weekends and rollover minutes:** “[O]ther nationwide carriers have taken the lead in introducing other innovative pricing plans or services, including [...] Cingular for free night and weekend minutes and rollover minutes...”²⁰⁷
- **Nextel push to talk (PTT) service (2003):** “... [O]ther nationwide carriers have taken the lead in introducing other innovative pricing plans or services, including [...] Nextel for PTT services.”²⁰⁸
- **ALLTEL, Suncom: “Mobile to Anyone” Plans (2006):** “Recently, a few U.S. providers have introduced “mobile to anyone” calling options. The new feature, currently offered by regional operators Alltel and Suncom, allow subscribers unlimited free calling to and from any ten designated numbers in the United States, regardless of wireline or wireless carrier.”²⁰⁹
- **Sprint: First national carrier to offer “Unlimited” plans (2007):** “A number of smaller and regional carriers, like Leap and MetroPCS, have been offering unlimited local calling plans for years. Now, first among the nationwide carriers, Sprint Nextel has begun offering unlimited calling plans, for a limited time, in select markets.”²¹⁰
- **Verizon Wireless: First to offer unlimited nationwide flat-rate calling plan (2008):** “Verizon Wireless made the first move by offering an unlimited nationwide flat-rate calling plan in February 2008. AT&T quickly responded with a similar offer, and T-Mobile

Mobile Services, *Fifth Report*, FCC 00-289, p.17.

206. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Eighth Report*, FCC 03-150, ¶195.

207. FCC, Memorandum Opinion and Order, Cingular/AT&T, FCC 04-255, October 26, 2004, ¶162.

208. FCC, Memorandum Opinion and Order, Cingular/AT&T, FCC 04-255, October 26, 2004, ¶162.

209. Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Eleventh Report*, FCC 06-142, ¶91.

210. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Twelfth Report*, FCC 08-28, ¶113.

followed soon after with a nationwide flat-rate calling plan that it differentiated by including unlimited voice bundled together with unlimited text messaging. Similarly, the version of a nationwide flat-rate offering subsequently unveiled by Sprint Nextel includes unlimited voice, text messages, and various premium data services such as e-mail and Web surfing.”²¹¹

155. As the FCC recognizes, maverick firms are “disruptive and competitive influences.” A principal way that firms disrupt competition is by growing relative to their rivals, which implies that their future competitive significance is likely to be greater than reflected by their current share. Thus, regulators’ heightened focus on mavericks when evaluating mergers is appropriate. However, as discussed above, T-Mobile USA’s estimated share of both contract and non-contract wireless subscribers in the United States **[Begin Confidential Information]** **[End Confidential Information]**.²¹² At the same time, T-Mobile USA’s monthly churn rate has remained high. These data are not characteristic of a maverick firm that is disruptive to wireless competition.

156. It is not appropriate to characterize T-Mobile USA as exerting a special role in constraining price simply because its prices tend to be lower than those charged by certain rivals. As discussed above, T-Mobile USA is not generally recognized as offering the lowest industry prices. Instead, analysts and the FCC have characterized MetroPCS and Leap as pioneering unlimited/non-contract pricing models, while AT&T, Verizon Wireless and Sprint are recognized for being leaders in providing data services. T-Mobile USA, on the other hand, was recently characterized as “stuck in the middle’ between quality and value.”²¹³

211. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Thirteenth Report*, DA 09-54, ¶112.

212. See Figure 6.

213. Bank of America Merrill Lynch “T-Mobile USA under pressure – 2011 EBITDA coming into focus”, November 5, 2010, p. 8.

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157. Table 2 above indicates that average “yield” (defined as non-data revenue divided by minutes of use) is lower for T-Mobile USA than for AT&T and Verizon Wireless, and roughly comparable to that earned by Sprint. We have not analyzed the extent to which these differences are attributable to factors such as the mix of contract and non-contract subscribers. However, to the extent that T-Mobile USA’s prices are lower than those received by AT&T and Verizon Wireless for otherwise comparable subscribers, T-Mobile USA’s lower prices have not stimulated growth in its share of retail subscribers. This indicates that other aspects of T-Mobile USA’s service are in some way lacking, so that their lower price reflects compensation for weaker dimensions of service other than price. They may include differences in geographic network coverage, service quality, handset availability, or other factors, and suggest that T-Mobile USA does not have a unique role in constraining prices charged by AT&T and other carriers.

CONCLUSION

158. We conclude that the proposed transaction will promote competition by enabling the merged firm to achieve engineering-based network synergies that increase network capacity beyond the levels that AT&T and T-Mobile USA could achieve if the two companies continued to operate independently. These additions to capacity will permit the merged firm to expand output beyond the sum of the output levels that would be achieved if the firms operated independently. A proper antitrust analysis of this transaction must account for the existing capacity limitations and the effect of this transaction on increasing capacity, among other factors. Given the large projected increases in demand for wireless data services, the recognized shortage of spectrum available in many areas to serve increased demand, the ongoing competitiveness of the wireless industry, the cost savings expected to result from the transaction, and the business plans for the merged firm, we conclude that the merged firm will have strong incentives to use this additional capacity to increase output compared to levels that

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would be expected in the absence of the proposed transaction. These factors are central to the analysis of the proposed transaction and our conclusion that it will not result in harm to consumer welfare.

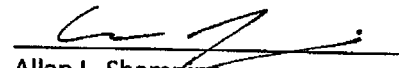
I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

Signature: *Dennis W Carlton*
Dennis W. Carlton

Date: April 20 2011

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

Signature:


Allan L. Champagne

Date:

April 20, 2011

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

Signature: Hal S. Sider
Hal S. Sider

Date: April 20 2011