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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

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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

[Begin Confidential Information] **[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.").

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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

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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.*

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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>.

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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.