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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

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 <u>Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies</u>, 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

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,

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.

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.

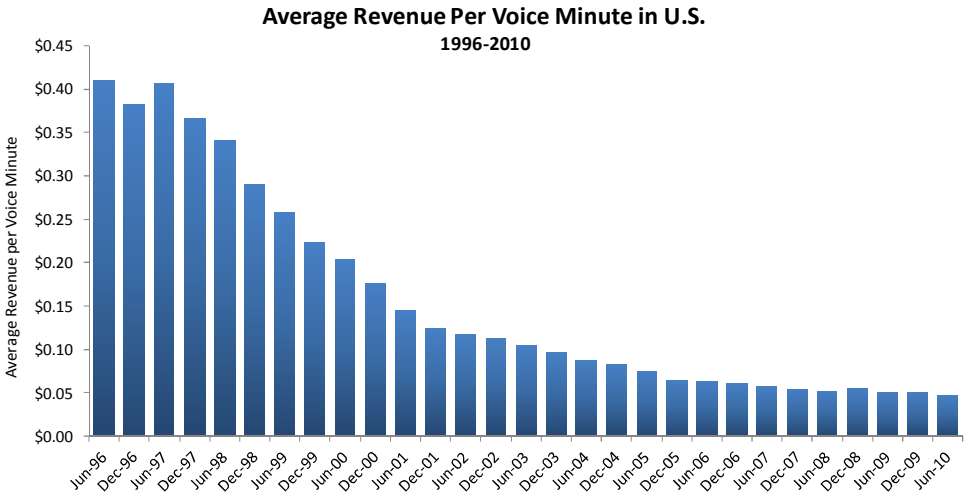
14. To put this into perspective, the number of wireless subscribers has grown from 38 million in June 1996 to 293 million in June 2010, an increase of over 650 percent.[2] In addition, the usage of voice services by subscribers has increased dramatically over this period, with the average monthly voice 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.

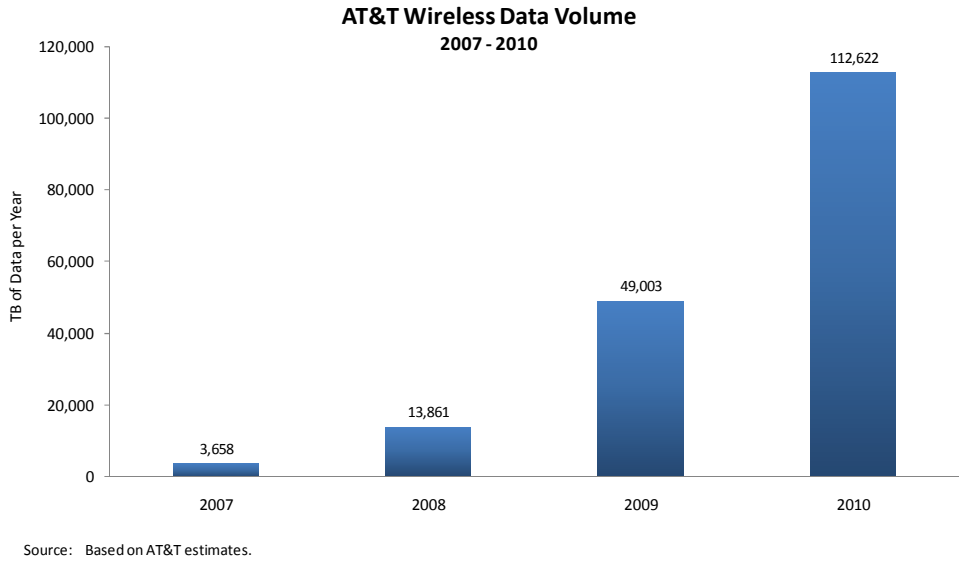
Figure 1



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.

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.

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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]

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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

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]

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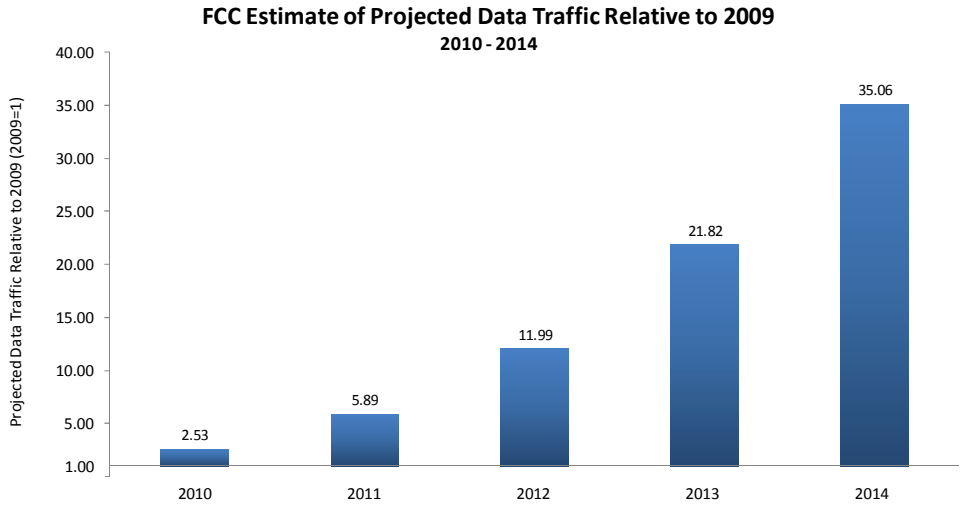
customized for- mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games)." FCC, "Internet Access Services: Status as of June 30, 2010," March 2011, p. 81.

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.

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.

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]

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20. AT&T Annual Reports, 2010, p. 71, 2008, p. 60.
21. Hogg Declaration, ¶22.
22. Hogg Declaration, ¶27.
23. Hogg Declaration, ¶8.
24. Hogg Declaration, ¶8. 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.

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.

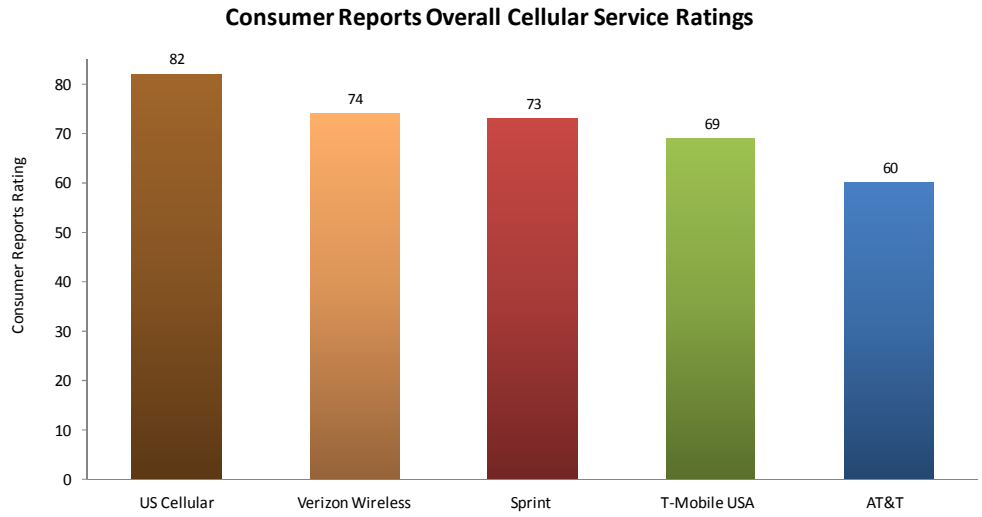
29. Indeed, consumer testing groups and surveys of customer satisfaction typically rate AT&T lower than Verizon and Sprint. Consumer Reports' January 2011 ratings of wireless services, for example, concluded that Verizon Wireless, Sprint and U.S. Cellular had the highest overall consumer satisfaction 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: Consumer Reports, 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	AT&T			T-Mobile USA		
Band	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.

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

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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, ¶22.

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

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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.

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]

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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,

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]

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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, ¶25. 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 Qual*comm 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, ¶8.
56. Description of Transaction, Public Interest Showing and Related Demonstrations, In re Applications of AT&T Mobility Spectrum LLC and Qual*comm Incorporated*, FCC Form 603, January 13, 2011, p. 6.
57. Moore Declaration, ¶25.
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

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Inc., In re Applications of AT&T Mobility Spectrum LLC and Qualcomm Incorporated, FCC Form 603, January 12, 2011, ¶8.

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]

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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

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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]

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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, ¶8.

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]** CMAs 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]

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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.

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,

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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.

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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.

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96. Christopher Declaration, ¶8, §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, ¶37. 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, ¶45.

98. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶38; FCC, Memorandum Opinion and Order and Declaratory Ruling, Verizon Wireless/ALLTEL, FCC 08-258, November 10, 2008, ¶49; FCC, Memorandum Opinion and Order, AT&T/Dobson, FCC 07-196, November 19, 2007, ¶25; FCC, Memorandum Opinion and Order, Sprint/Nextel, FCC 05-148, August 8, 2005, ¶57; FCC, Memorandum Opinion and Order, Cingular/AT&T, FCC 04-255, October 26, 2004, ¶89, ¶104.

99. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶45.

100. FCC, Memorandum Opinion and Order, AT&T/Centennial Communications, FCC 09-97, November 5, 2009, ¶45.

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

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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, ¶52.
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.

Table 2 [Begin Confidential Information]

[End Confidential Information]

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, ¶30.
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.

(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,

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

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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]

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=UGFyZW50SUQ9ODI3OTI8Q2hpbGRJRD0tMXxUeXBlPTM=&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

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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 subscribers[162] 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, ¶29.
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.

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]

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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

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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

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.

123. Traditionally, T-Mobile USA has primarily provided contract services but, like Sprint, Metro PCS and Leap, has increasingly focused on non-contract services. For example, **[Begin Confidential Information]**

[End Confidential Information].[182]

124. T-Mobile USA's share of subscribers and revenue from enterprise customers is smaller than its aggregate share. AT&T data indicate that T-Mobile USA is estimated to account for only about **[Begin Confidential Information] [End Confidential Information]** percent of business subscribers while AT&T's share of business subscribers is **[Begin Confidential Information] [End Confidential Information]** percent.[183]

125. T-Mobile USA also has been relatively unsuccessful in attracting data-intensive subscribers, instead attracting a disproportionate share of **[Begin Confidential Information] [End Confidential Information]** and **[Begin Confidential Information] [End Confidential Information]**subscribers. As shown in Table 2, data services account for only about **[Begin Confidential Information] [End Confidential Information]** percent of T-Mobile USA revenue, substantially less than the **[Begin Confidential Information] [End Confidential Information]** percent for AT&T.

126. T-Mobile USA's subscriber share has been declining somewhat in recent years among both contract and non-contract subscribers. AT&T's estimates indicate that T-Mobile USA's share of contract subscribers has **[Begin Confidential Information] [End Confidential Information]** percent in the fourth quarter of 2008 to **[Begin Confidential Information] [End Confidential Information]** percent in the fourth quarter of 2010. Among non-contract subscribers, T-

182. See Table 2.
183. See Table 2.

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.

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.

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, ¶80.

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]

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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

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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.

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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).

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, ¶90.

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

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]

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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

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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, ¶95.
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]

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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.

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

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. Shampine

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