4. Without the proposed transaction, T-Mobile USA's continued ability to exert competitive pressure on its nationwide rivals is likely to remain constrained because of its smaller subscriber share, revenue base and longer-term spectrum constraints. As of the second quarter of 2012, T-Mobile USA had approximately 33.1 million total subscribers—an estimated national subscriber share of 9.9 percent.[1] In comparison, T-Mobile USA's nationwide competitors all have significantly larger subscriber shares—approximately three times larger in the case of Verizon Wireless and AT&T, and 70 percent larger in the case of Sprint.[2]

5. AT&T, Verizon Wireless and Sprint all enjoy an advantage over T-Mobile USA with respect to service revenues as well. At $15.8 billion and $14.8 billion respectively, the service revenues of Verizon Wireless and AT&T from the second-quarter of 2012 are more than three times that of T-Mobile USA, which totaled only $4.4 billion. Sprint also earns more in wireless service revenue than T-Mobile USA, with a total of $7.3 billion for the most recent quarter. Furthermore, as of the second-quarter of 2012, AT&T, Verizon Wireless and Sprint experienced year-over-year growth in service revenue; T-Mobile USA was the only one of the top four carriers to experience a decline.[3]

---

1 Bank of America Merrill Lynch 2Q12 US Wireless Matrix (Aug. 17, 2012).

2 *Id.*

3 *Compare* Press Release, "T-Mobile USA Reports Second Quarter 2012 Operating Results," Aug. 9, 2012, http://newsroom.t-mobile.com/articles/t-mobile-usa-reports-second-quarter-2012-operating-results *with* "AT&T Reports 10 Percent Earnings Growth, Strong Revenue and Margin Gains and Best-Ever Wireless Margins and Churn In Second-Quarter Results," (Jul. 24 2012), http://www.att.com/gen/press-room?pid=23091&cdvn=news&newsarticleid=34898; Press Release, "Verizon Reports Continued Double-Digit Earnings Growth and Strong Operating Cash Flow in Second-Quarter 2012," (Jul. 19, 2012), http://news.verizonwireless.com/news/2012/07/pr2012-07-19.html;Press Release, "Sprint Nextel Reports Second Quarter 2012 Results and Updates Full Year Forecast," (Jul. 26, 2012), http://newsroom.sprint.com/article_display.cfm?article_id=2340.

6. Because of their greater size, the other nationwide carriers can realize certain scale efficiencies that are unavailable to T-Mobile USA. Most importantly, AT&T, Verizon Wireless and Sprint have higher asset utilization measured by the number of customers supported per unit of fixed cost network—such as cell towers. T-Mobile USA must allocate the largely fixed costs of its network over a smaller subscriber base, so its costs-per-subscriber are higher than its rivals. In addition, the larger carriers have pure volume discounting economies of scale in purchasing, as well as other scale efficiencies that can impact carrier competitiveness. For example, the larger subscriber bases of AT&T, Verizon Wireless and Sprint are more attractive to handset manufacturers seeking an exclusive relationship in bringing their devices to market. As a result, the larger carriers can leverage their larger scale when negotiating handset and device procurement costs and handset exclusivity arrangements in ways that T-Mobile USA cannot.

7. With respect to premium customers, T-Mobile USA is also at a disadvantage relative to its larger nationwide competitors. One of the key decisional criteria for premium customers in selecting a carrier is the quality and speed of the carrier's broadband data offerings. We see this, in fact, in the national advertising of Verizon Wireless, AT&T, and Sprint—and T-Mobile USA—all of which tout the benefits of their data networks. While T-Mobile USA enjoyed some early advantages through its industry-leading deployment of HSPA+ technology, T-Mobile USA's delayed ability to offer LTE puts T-Mobile USA at a further competitive disadvantage. Due to spectrum challenges, T-Mobile USA will only begin to offer 4G LTE next

year; the company lags behind AT&T, Verizon Wireless, and Sprint in deploying LTE by at least a year.[4]

8. In addition to competition from other larger nationwide carriers, T-Mobile USA also faces considerable competition from other sources. T-Mobile USA's competitive analyses reveal that customers can and do routinely switch to services provided by competitors like AT&T, Verizon Wireless and Sprint. T-Mobile USA additionally competes with offerings from non-facilities-based carriers, including national resellers/MVNOs and branded offerings like TracFone, Straight Talk, and others. TracFone, for example, serves 21.34 million customers nationally, more than twice the number served by MetroPCS.[5] Importantly, some of these local competitors, as well as some nationwide MVNOs, target niche demographics that include specific rate plans and promotions aimed at the value customer base that is one of T-Mobile USA's strengths.

---

[4] Verizon Wireless first launched LTE in December 2010. *See* Verizon Wireless, Press Release, "Happy 1st Anniversary, Verizon Wireless 4G LTE!" (Dec. 5, 2011), http://news.verizonwireless.com/news/2011/12/pr2011-12-05a.html. It now covers 371 cities and nearly 75% of the U.S. population. *See* Verizon Wireless, "America's Largest 4G LTE Network," http://network4g.verizonwireless.com/#/coverage (last viewed Oct. 13, 2012). AT&T and Sprint both launched LTE in 2012. *See* Marguerite Reardon, "Sprint Officially Launches 4G LTE in 15 Cities," CNET.com (Jul. 16, 2012), http://news.cnet.com/8301-1035_3-57472992-94/sprint-officially-launches-4g-lte-in-15-cities/. Sprint's LTE launch in the summer of 2012 consisted of seven markets, *id.*, and Sprint has announced plans to deploy LTE in 100 additional markets. *See* Sprint, "The Sprint 4G LTE Network Has Arrived," http://www.sprint.com/landings/lte/index.html?ECID=vanity:4GLTE (last viewed Oct. 13, 2012). To date, AT&T has already launched LTE in 77 markets. *See* AT&T, "AT&T. The Nation's Largest 4G Network," http://www.att.com/network/ (last viewed Oct. 13, 2012).

[5] *See* America Móvil, "America Móvil's Second Quarter of 2012 Financial And Operating Report," (Jul. 26, 2012), *available at* http://www.americamovil.com/amx/en/cm/reports/Q/Q12.pdf.

III. THE PROPOSED TRANSACTION WILL ACCELERATE T-MOBILE USA'S "CHALLENGER" STRATEGY AND CREATE A STRONGER COMPETITOR

9. The proposed transaction with MetroPCS will strengthen T-Mobile USA as a competitor. As an initial matter, the proposed transaction directly addresses the scale issues I have identified in Section II. While Newco will still remain the smallest of the nationwide competitors identified by the FCC, the enhanced size of the company will narrow a number of scale disadvantages that currently reduce its ability to compete against its larger rivals. As a practical matter, as addressed below, this transaction will accelerate T-Mobile USA's "Challenger" strategy, with substantial benefits for the mobile wireless market. T-Mobile USA's aggressive "Challenger" strategy aims to make T-Mobile USA the value leader with respect to 4G service plans. Under the "Challenger" strategy, T-Mobile USA is repositioning its brand, refreshing its stores, and aggressively pursuing business-to-business ("B2B") contracts in the small and medium enterprise ("SME") and large business markets.

10. By combining with MetroPCS, T-Mobile USA will be able to accelerate its "Challenger" strategy in several key ways. First, the transaction will allow T-Mobile USA to deploy a faster and deeper LTE network than T-Mobile USA could achieve on a stand-alone basis. As discussed in the McDiarmid Declaration, by improving T-Mobile USA's access to spectrum and selected network assets, the transaction will not only provide customers with improved network coverage (including important enhanced in-building coverage) and capacity, but also allow for a more efficient use of spectrum by Newco, therefore freeing up more spectrum for LTE.[6] The strength of T-Mobile USA's data network will allow it to continue to aggressively pursue customers looking for smartphone plans or other data-intensive service offerings and enhance its ability to submit competitive bids for business, corporate and

---

[6] *See* Declaration of Mark McDiarmid, Paras. 7-9, 15 ("McDiarmid Declaration").

government customers. In particular, the enhanced LTE capabilities will inure to the benefit of T-Mobile USA in the eyes of consumers.

11. Second, the proposed transaction will give Newco significant scale advantages. Greater scale means that the company can distribute the largely fixed costs of its network over a broader subscriber and customer base. With lower fixed costs per subscriber, Newco should generate greater earnings per customer and have increased pricing flexibility. Greater scale also means that the combined company's expenses and investments in innovation can be amortized over a larger customer base and product portfolio, which will allow Newco to pass the benefits of increased scale on to its customers. All of these factors impact Newco's competitiveness compared to other nationwide carriers and Newco's ability to invest in next-generation LTE on a broad basis.

12. Third, the combined company will help T-Mobile USA's efforts to become the value leader in the U.S. market. Newco can capitalize on MetroPCS' proven abilities to access specific market distribution mechanisms and achieve stronger penetration in specific customer demographics in an effective manner. Newco expects to extend the MetroPCS brand to additional metropolitan areas across the country. Combining MetroPCS' proven ability to execute its targeted business plans with the greater geographic scope of T-Mobile USA's network will enable Newco to offer enhanced products and services that will drive further competition—and therefore benefits—for consumers. As discussed in Section V, because customers are increasingly focused on getting more value from their wireless service, Newco will be well-positioned to meet customers' needs.

13. Fourth, the proposed transaction will also enhance T-Mobile USA's financial position under Newco. DT has made a financing commitment to Newco of $15 billion, which

improves Newco's balance sheet and therefore the company's access to financial resources. Moreover, the transaction is structured as a reverse merger so that, after consummation, Newco will be a publicly-traded company, which will provide Newco with better access to capital markets than T-Mobile USA currently enjoys. As a final matter, the transaction reaffirms DT's commitment to the U.S. market, which should not only bring additional investors, but also shore up confidence by current and potential subscribers and partners in Newco's long-term ability to provide quality service.

IV. THE PROPOSED TRANSACTION WILL GENERATE SIGNIFICANT SYNERGIES THAT CAN BE INVESTED BACK IN THE BUSINESS

14. Newco will be able to realize significant network and non-network synergies over T-Mobile USA and MetroPCS as stand-alone companies. Newco's business plan projects, in fact, that it will realize over $6-7 billion in total synergies on a net present value ("NPV") basis. The total synergies are estimated to yield approximately $1 billion in projected annual savings by 2017. These synergies will generate savings that Newco can invest back in the business, helping to ensure Newco's long-term competitive success for the benefit of all wireless subscribers.

15. *Network Synergies.* The transaction will allow Newco to realize significant projected network synergies generating savings of approximately $5-6 billion NPV. These network synergies will come from Newco's rationalization of T-Mobile USA and MetroPCS LTE networks into a single network, the decommissioning of overlapping cell sites and corresponding reduction in lease and backhaul costs, the eventual decommissioning of MetroPCS's CDMA/EvDO network, Newco's elimination of overlapping network functions, and reduction in duplicative network-based capital expenditures. MetroPCS' transition to Newco's network will also reduce MetroPCS' roaming costs, for a projected run-rate savings of **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** per year.

Newco's asset utilization is expected to improve by about 20-25 percent as measured by customers per cell site.

16. These network synergies will help the company compete more effectively and benefit both current and future customers. As discussed in the McDiarmid Declaration, MetroPCS' customer base can be rapidly migrated to T-Mobile USA's network on a straightforward basis as existing customers upgrade their handsets. Upon completion, this will permit Newco to decommission duplicative cell sites and backhaul, achieving significant cost savings.[7] Newco is expected to be able to eliminate approximately **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** redundant MetroPCS cell base station sites, generating substantial cost savings from elimination of leases, backhaul, utilities, upgrades, maintenance and other recurring site-related expenses. The decommissioning of these cell sites will result in projected savings of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** per year per site. When offset by the higher operating expenses ("OPEX") on retained and upgraded DAS and T-Mobile USA sites, this elimination will result in a projected annual run-rate synergy of approximately $600-700 million. Meanwhile, those sites that are retained will provide added network capacity during the transition and help defer spectrum congestion in urban markets and ensure MetroPCS customers migrating to the Newco network have the same or better coverage everywhere. Newco will save further by eliminating future individual network builds and upgrades.

17. *Non-Network Synergies.* The proposed transaction will also generate an estimated $1 billion NPV of non-network synergies. These synergies will result from Newco's increased scale in back-office and administrative functions, as well as reduced handset and

---

[7] *See* McDiarmid Declaration, Paras. 17-18.

device procurement costs from switching handsets supplied to MetroPCS customers from CDMA to the larger global GSM ecosystem. As noted previously, Newco's increased scale will improve its cost-per-subscriber by spreading its fixed network costs over a larger base of subscribers.

18. Newco will realize savings by combining back-office operations, general administrative functions and other purchased services. By consolidating back-office operations, Newco will achieve savings with a projected annual run-rate savings of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]**. Newco will also achieve efficiencies in customer support, resulting in an estimated cost reduction of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** percent of MetroPCS's customer support costs by 2015, for a projected annual run-rate savings of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]**. Newco is estimated to additionally reduce its non-network capital expenditures by **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** percent, for a projected annual run-rate savings of about $10-50 million by 2015. Newco will thus be more operationally efficient than either T-Mobile USA and MetroPCS could be on their own.

19. Newco will also realize synergies with respect to handset and device procurement costs. In particular, due to its reliance on the larger GSM-based ecosystem of devices, Newco will be able to pay less in handset subsidies than MetroPCS currently pays on a stand-alone basis. Newco expects that the projected handset subsidies of MetroPCS will be reduced by **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** percent, for a projected annual run-rate savings of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** by 2015.

20. Newco's savings will free up financial resources that can be invested back in new network technology, innovation, and operations. These efficiencies will thus further bolster the long-term viability of both brands and strengthen Newco as a competitor.

V. THE PROPOSED TRANSACTION WILL DELIVER BENEFITS TO T-MOBILE USA AND METROPCS CUSTOMERS AS WELL AS WIRELESS CONSUMERS GENERALLY

21. The proposed transaction will deliver significant benefits to T-Mobile USA and MetroPCS customers. The benefits to T-Mobile USA customers include a faster, broader, deeper LTE network deployment with less implementation risk and, as discussed above, economies of scale that could broaden the range of devices and products. MetroPCS customers will have access to a much broader network with reduced reliance on roaming, significantly improved data services over CDMA/EvDO, a wider array of devices within the GSM ecosystem, enhanced international options, and access to new broadband devices. These benefits will make these brands more attractive in comparison to offerings from Newco's competitors. As a result, Newco should stimulate additional competition, which will benefit all wireless consumers.

22. As discussed in the McDiarmid Declaration, the proposed transaction will give T-Mobile USA customers immediate access to a larger network with fewer capacity constraints, better in-building coverage, and, in the near future, access to a deeper LTE roll-out on par with T-Mobile USA's larger rivals. Coverage in key urban markets will improve, and T-Mobile USA customers will experience fewer dropped and blocked calls and faster data speeds.[8]

23. Newco's increased scale and its savings associated with increased scale will also generate other significant benefits for T-Mobile USA customers. As a more attractive partner to handset and device manufacturers due to its larger subscriber base, Newco will afford T-Mobile

---

[8] *See* McDiarmid Declaration, Para. 16.

USA customers access to the latest LTE-compatible handsets and devices. And, Newco's enhanced scale will give it greater purchasing and negotiating power, thus making handsets and devices more affordable for consumers.

24. Notably, T-Mobile USA customers will be able to enjoy these improvements without having to change their current devices or rate plans. Their quality of service will improve markedly without a corresponding increase in cost. As a result, the proposed transaction will make T-Mobile USA service an even better value for current and future customers.

25. As discussed in the Glen Declaration, the transaction will also deliver substantial benefits to MetroPCS customers. MetroPCS customers will gain faster, broader, and more reliable 4G data service through Newco's 4G LTE network. MetroPCS customers will also gain improved access to handsets and benefit from better prices, by virtue of the larger GSM-based handset ecosystem in comparison to the more limited CDMA handset ecosystem that MetroPCS draws from today. And, customers will gain important options and services, such as broad international roaming capabilities, the option to migrate to contract services from the same carrier, the ability to bring their own handset to Newco's network, and the ability to retain MetroPCS-branded service when moving out of MetroPCS' current 19-metropolitan area footprint.[9]

26. Newco will also expand the MetroPCS brand to new major metropolitan areas, introducing a new competitor to various metro areas and providing increased options to consumers there. Because of its nationwide network, Newco will have a better base to

[9] *See* Declaration of Douglas S. Glen, Paras. 16, 19 ("Glen Declaration").

incrementally expand the MetroPCS brand to areas that are adjacent to MetroPCS' existing service areas.[10]

27. As a final matter, MetroPCS customers will receive the benefits of an expanded and enhanced network without an increase in the price of their existing service plans. As discussed in the McDiarmid Declaration, a smooth and rapid transition is envisioned for MetroPCS customers.[11] To facilitate the migration, Newco has budgeted for additional customer incentives as needed. The proposed transaction will thus make MetroPCS an even better value for current and future customers.

28. Because Newco will deliver fast, reliable and improved service to both T-Mobile USA and MetroPCS customers without their incurring additional costs, the proposed transaction will affirm these brands as the value leaders in the wireless marketplace. As a result, the transaction will likely spur responsive offerings from Newco's competitors—not only larger nationwide carriers like AT&T, Verizon Wireless, and Sprint, but small and regional carriers and resellers/MVNOs as well. By strengthening T-Mobile USA and MetroPCS and introducing MetroPCS to new metropolitan areas, the transaction will ultimately benefit all wireless consumers by increasing wireless competition overall.

---

[10] *See* Glen Declaration, Para. 20.

[11] *See* McDiarmid Declaration, Paras. 17-18.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 18, 2012.

Peter Ewens

Peter Ewens

Attachment 2

Declaration of Mark McDiarmid

DECLARATION OF MARK MCDIARMID
VP, Radio Network Engineering and Development, T-Mobile USA, Inc.

I. BIOGRAPHICAL INFORMATION

1. My name is Mark McDiarmid. I serve T-Mobile USA's technology organization in the capacity of Vice President, Radio Network Engineering and Development. In this role, I am responsible for radio network planning, radio technology development for network and device, and spectrum engineering. The objective of my team, and focus of my leadership, is to enable more efficient voice and data coverage service for our customers. It is my responsibility to ensure we deploy network solutions and device capabilities that maximize voice service reliability, spectrum efficiency and mobile broadband performance.

2. I joined T-Mobile USA in May 2004 in the capacity of Director, Network Evolution and Strategy with an objective of shaping our company's acquisition of spectrum in the Advanced Wireless Services spectrum auction. Prior to that role, I worked in the engineering functions of a number of domestic and international mobile wireless companies, starting with the UK based company Hutchison Microtel in 1990 that later became the operator Orange. I hold a bachelor's degree in Electronics and Computing Science, University of Wales, Swansea. Since graduating in 1990, the majority of my time and focus has been invested in the matter of extracting higher performance from cellular systems as measured in terms of higher data throughput, spectrum efficiency and improved customer experience.

3. I hereby make this declaration.

II. SUMMARY

4. The combination of T-Mobile USA and MetroPCS will enable the deployment of a substantial LTE and HSPA+ network nationally that will enhance competition and provide important benefits for consumers. Exploding data demand and the rapid LTE progress of other

carriers have made it an imperative for T-Mobile USA and MetroPCS to keep pace to remain competitively relevant. Spectrum scarcity has made competing with other large nationwide wireless providers even more difficult. T-Mobile USA is in the process of refarming its spectrum holdings to make way for a new 3GPP Long Term Evolution ("LTE") network. By merging the two companies, and combining their network assets and spectrum, the resulting Newco will provide for a broader, deeper and faster LTE deployment than either company could accomplish on its own. Simply put, this transaction, once approved, will better position Newco with the spectrum and network facilities to offer consumers a richer LTE experience and will position Newco as an important, competitively significant alternative to the three largest wireless carriers.

III. THE PROPOSED TRANSACTION WILL AMELIORATE SEVERAL CHALLENGES FACED BY T-MOBILE USA IN THE EVOLUTION OF ITS NETWORK TO LTE.

5. T-Mobile USA is currently preparing for the launch of a 4G LTE network in 2013 to remain competitive with other wireless providers in the United States. In the past year, T-Mobile USA has acquired additional AWS spectrum assets from AT&T and Verizon that will help facilitate this deployment. We have also executed a series of spectrum swaps to improve the efficiency of how we use spectrum and prepare for future growth. However, T-Mobile USA continues to face challenges on its path to LTE, and completion of the transaction with MetroPCS will play an important role in establishing Newco as a stronger LTE competitor. First, LTE – particularly in a 20 x 20 MHz configuration – carries with it significant performance benefits that will make Newco a more effective competitor. Second, the transaction helps to address spectrum constraints faced by T-Mobile USA. Finally, the transaction will help mitigate

the ever-increasing utilization of T-Mobile USA's network by enhancing network density in key areas.

A. The Benefits of Launching an LTE Network Are Indisputable and Enhanced by the Proposed Transaction.

6. It is undisputed that a rapid LTE deployment is necessary for T-Mobile USA's competitive success. As consumers demand more bandwidth for more data-intensive uses, LTE represents a major advance for the wireless industry in terms of performance, efficiency, and service flexibility. In its current form, LTE is up to 40 percent more spectrally efficient than HSPA+ and will evolve to be up to 60 percent more spectrally efficient than HSPA+[1] by 2016. LTE also provides significant benefits in latency, or the speed with which data transverses the entire wireless network. The latency with which packets are transmitted over the LTE radio interface is approximately 33 percent faster than HSPA+.[2] Because LTE offers spectrum efficiencies over HSPA+ and GSM, all of T-Mobile USA's customers will be able to experience significant benefits as T-Mobile USA deploys LTE and transitions its customers to the new LTE network.

7. The proposed transaction with MetroPCS will improve the LTE offering to be provided by Newco. While MetroPCS has already launched an LTE network, and T-Mobile USA will launch its own LTE system in 2013, the combined Newco will be positioned to provide an even more robust and substantial network. The primary reason for this improvement is derived by deploying more expansive and contiguous bands of LTE spectrum. While a 10 x 10 MHz LTE network will have two times faster downlink peak data rates than HSPA+,[3] a 20 x

---

1 Rysavy Research, 3G Americas, HSPA to LTE-Advanced: 3GPP Broadband Evolution to IMT-Advanced, Sept. 2009.

2 *Id.*

3 Assuming dual carriers in a 10 x 10 MHz configuration.

20 MHz LTE configuration will have downlink peak data rates that are four times greater. In terms of uplink peak performance, a 10 x 10 MHz LTE network is currently 2.2 times faster than HSPA+[4] while a 20 x 20 MHz LTE network will be 5.8 times faster. Finally, the Commission has found that "the capacity with a single [20 x 20] MHz carrier is 20 percent higher than with two [10 x 10] MHz carriers."[5]

8. Neither of the two companies alone is well positioned to provide a 20 x 20 MHz LTE network due to a lack of available spectrum. The increased performance that LTE enables today and the planned evolution to higher performance levels in terms of peak throughput, average throughput, and packet latency, will directly translate to a superior end-user experience for Newco's customers. Significantly, the transaction enables Newco to deploy 20 x 20 MHz (or greater) LTE in a substantial majority of top markets – a deployment that will be very competitive with that of other larger carriers nationally. As previously stated, the Commission found a gain of 20 percent in capacity with a single 20 x 20 MHz LTE carrier than with two 10 x 10 MHz LTE carriers. These efficiencies of 20 x 20 MHz LTE configurations are achieved through improved ratio of control channel overhead to user channel bandwidth, the elimination of guard bands, and statistical multiplexing gains.[6] In general, where T-Mobile USA and MetroPCS have adjacent PCS or AWS spectrum bands deployed, the two companies must utilize

---

4 *Id.*

5 Federal Communications Commission, "The Broadband Availability Gap", OBI Technical Paper No. 1 at 73 (April 2010).

6 Multiplexing in an LTE radio interface refers to a scheme for sharing the radio channel to transmit IP packets based on the number of available resource blocks in the radio channel and the readiness of packets to be transmitted. As the LTE radio channel is increased in size, for example from LTE 10 x 10 to LTE 20 x 20, the total number of resource blocks that are available to transmit packets increases proportionally. As the pool of resource blocks increases, the probability of securing available resource blocks to transmit packets increases marginally – this is referred to as statistical multiplexing gain.

a guard band between their operations to protect against inter-system interference. By combining, Newco will enable the removal of these guard bands as well as the deployment of consistent technology (as opposed to GSM for one and CDMA for the other, for example). This will provide the combined company with a smoother and more efficient path to a higher performance LTE network than would otherwise be possible.

9. This increase in speed and the other positive attributes with LTE delivered by the combined company will provide an improved customer experience, marked by more responsive web browsing on smart phones, faster streaming of video content, and dramatically faster uploading of video and image files from devices to the network. Offering competitive network capabilities is important in the wireless marketplace. T-Mobile USA's primary competitors proclaim their data speed advantages as well as the quality and reach of their network services in all of their marketing material. As such, T-Mobile USA must make every effort to deploy a deep and broad LTE network that provides data speeds and capabilities that are competitive with other wireless providers. Verizon's current advertising that highlights T-Mobile USA as having zero LTE coverage evidences the importance of quickly establishing a deep and broad LTE network footprint for T-Mobile USA.[7]

10. It is therefore critical that T-Mobile USA be able to deploy a competitive and sustainable LTE network as soon as possible. While several challenges remain in the company's way, these issues are significantly addressed by the MetroPCS transaction.

---

[7] FierceBroadbandWireless, "Verizon commercial hammers rivals' LTE footprints" (Sept. 6, 2012), *at* http://www.fiercebroadbandwireless.com/story/verizon-commercial-hammers-rivals-lte-footprints/2012-09-06.

B. T-Mobile USA Requires Additional Spectrum to Meet the Demand for Mobile Broadband Services.

11. T-Mobile USA continues to require additional spectrum to accommodate the significant and increasing demand of its customers for mobile broadband services. As T-Mobile USA's customers have increasingly made use of bandwidth-intensive mobile data services, T-Mobile USA has seen a sharp increase in traffic on its network. Between January 2009 and January 2012, we have seen the data demand increase by a multiple of **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** due to the introduction of smartphones and the development of widespread mobile broadband capability in the network. While T-Mobile USA has engaged in spectrum acquisitions and has deployed an extensive fiber-to-the-base station network to improve capacity and data speeds, it nonetheless will inevitably face spectrum congestion in several markets in the mid-term. T-Mobile USA's current spectrum capacity modeling and exhaust projections anticipate that T-Mobile USA could experience spectrum congestion in **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** of the top 25 CMAs without deploying LTE and **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** out of the top 25 CMAs with deployment of LTE in the mid-term. T-Mobile USA is particularly constrained in **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]**, where it is projected to experience significant performance degradation in just a few years in the absence of additional spectrum.

12. Projections for data usage on T-Mobile USA's network likely are conservative, as T-Mobile USA's existing modeling does not fully account for the company's very recent introduction of unlimited data plans, the impact of which is yet to be fully understood. Regardless, T-Mobile USA expects per customer and total data consumption to continue to grow

over time as customers migrate to HSPA+ and LTE, utilize higher performance connectivity, and enjoy greater value from our products and services.

13. The explosive growth in usage of smartphones by consumers has greatly exacerbated strain on the T-Mobile USA network. In Q4 of 2008, T-Mobile USA pioneered the introduction of the first Android smartphone, the Google G1, and since then we have aggressively marketed smartphones. Today, **[BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL]** percent of T-Mobile USA's 3G and 4G customers use smartphones, and it is expected that data usage by T-Mobile USA's customers will continue to increase, fueled by faster network connectivity and the acceleration of processing power and general capabilities of smartphones. Further, if other companies' LTE deployments are any indication,[8] T-Mobile USA customers will be spurred to use even more data once they have access to the performance benefits and higher speeds of a LTE network. T-Mobile USA has already seen significant customer usage increases as the network and devices have evolved from EDGE to UMTS, from UMTS to HSPA+, and from HSPA+ to dual carrier HSPA+. And, as explained further below, T-Mobile USA requires additional spectrum not only to fend off spectrum congestion in certain markets, but also to launch an LTE configuration that will enable T-Mobile USA to better compete with larger carriers.

14. To address spectrum constraints in its network, T-Mobile USA has employed numerous techniques to use its existing spectrum more efficiently to avoid spectrum congestion, but nonetheless requires additional spectrum to compete effectively. T-Mobile USA was the first to implement improved versions of HSPA+ in the United States and has been a leader in global

---

[8] *See, e.g.*, PRNewswire, "LTE Smartphones and Tablets Drive Increased Data Usage of Both Cellular and Wi-Fi Networks According to New Research" (Aug. 1, 2012), *available at* http://www.prnewswire.com/news-releases/lte-smartphones-and-tablets-drive-increased-data-usage-of-both-cellular-and-wi-fi-networks-according-to-new-research-164555656.html.

standards efforts to continue to improve HSPA+. While HSPA+ provides significant improvements over second generation GSM technology, it does not match all the capabilities and efficiencies of LTE. T-Mobile USA has also deployed some of the densest cell infrastructure in urban markets – demonstrated by the fact that T-Mobile USA has the second most tower facilities of any operator in the United States. This density of deployment has enabled T-Mobile USA to provide additional capacity using the same spectrum assets. Further, T-Mobile USA has been at the forefront of using unlicensed Wi-Fi frequencies for network offloading of traffic from its licensed frequencies, including enabling customers to use Wi-Fi to make voice calls. However, absent an influx of new spectrum, none of these measures is sufficient to alleviate the strain of demand from customers for more and more wireless data.

15. This transaction will enable Newco to deploy its spectrum investments more efficiently than either T-Mobile USA or MetroPCS could achieve on its own. As noted above, the spectrum positions of the two companies are highly complementary -- both operate in the same frequency bands (AWS and PCS) and there is a high degree of adjacency among the specific holdings in those bands. This alignment provides for important synergies and greater throughputs and improved spectral efficiency.

C. The Proposed Transaction Will Rapidly Enhance Network Density in Key Areas.

16. The ever-increasing utilization of T-Mobile USA's network will need to be mitigated through greater cell density, particularly in urban areas. It is well-established that greater cell density increases network capacity, but the procedural and economic realities of deploying new cell sites makes this an arduous and high-risk process. This transaction will have the effect of further bolstering T-Mobile USA's network in many of the areas in the country with the greatest population density. Currently, T-Mobile USA has approximately **[BEGIN**

HIGHLY CONFIDENTIAL] **[END HIGHLY CONFIDENTIAL]** cell sites within the area where MetroPCS provides coverage today. We plan to retain and equip approximately **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** MetroPCS cell sites and substantially all of MetroPCS' **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** Distributed Antenna Systems ("DAS")[9] radiating nodes (equivalent to small cells) with HSPA+/LTE capability. This will result in an increase of approximately **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** equivalent cell sites (for purposes of this calculation 7 DAS nodes provide coverage equivalent to one cell site) which represents a 12 percent increase in the T-Mobile USA site density within the MetroPCS footprint. The combination will also result in an 84 percent increase in the equivalent number of cell sites available to support MetroPCS customers in the area where MetroPCS provides service today. The retained MetroPCS cell sites are primarily located in urban areas, such as **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** where T-Mobile USA will first face capacity constraints. When these sites are integrated into the T-Mobile USA network, there will be an immediate, positive impact on the combined company's network capacity. By combining, the two companies will immediately reap the benefits of DAS technology, thereby contributing to the deployment of a denser, more user-intense network for LTE.

IV. RAPID INTEGRATION OF THE TWO COMPANIES' NETWORKS WILL RESULT IN NUMEROUS CONSUMER BENEFITS.

17. T-Mobile USA plans an aggressive technology migration program for the combined company that will allow for rapid expansion of capacity and enable customers to

[9] A DAS is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS is generally used for in-building or "hot spot" coverage.

quickly realize the benefits of the transaction. Newco will accomplish integration of the two companies' customer bases via a straightforward network and customer migration plan. This migration plan involves: (1) accommodating MetroPCS' existing LTE customers on the T-Mobile USA network very soon after closing and (2) distributing MetroPCS-branded GSM/HSPA+ handsets that operate on T-Mobile USA's network promptly after closing. The key facet of this plan is migrating customers with the highest data usage onto the combined company's broader and significantly deeper LTE network. T-Mobile USA anticipates that it will be able to allow upgrading MetroPCS customers to begin using the T-Mobile USA network very soon after closing. Indeed, MetroPCS' existing LTE-capable devices can be accommodated on the Newco LTE network without any need for customers to change handsets. T-Mobile USA also plans for the combined company to begin distributing MetroPCS-branded GSM/HSPA+ handsets that operate on T-Mobile USA's network to new and upgrading customers promptly after closing. This will provide these new and existing MetroPCS customers with access to T-Mobile USA's nationwide network, improved coverage quality, higher performing devices, and a broader choice of handsets. Importantly, improved coverage quality will be enabled for existing MetroPCS customers as they migrate to the combined network because T-Mobile USA's network is denser in terms of macro sites relative to the MetroPCS network. The coverage quality benefit of the retained capacity sites and upgraded DAS is additive and will further improve coverage satisfaction for both T-Mobile USA and migrating MetroPCS customers simultaneously.

18. T-Mobile USA has engaged in extensive traffic modeling and determined that during the transition, MetroPCS customers will be able to be supported on the T-Mobile USA network. The ability to support these customers will be enhanced through the use of MetroPCS

cell sites and DAS systems retained by Newco for the purpose of providing capacity relief. Also, Newco will be able to migrate MetroPCS customers onto the T-Mobile USA network due to the steady handset upgrade and refresh rate historically associated with MetroPCS customers. This will accelerate the migration of the customer base over to a more efficient LTE technology that provides added performance benefits to MetroPCS customers. T-Mobile USA expects that MetroPCS customers are likely to be completely migrated by the second half of 2015. By undertaking this rapid migration, Newco will be able to decommission MetroPCS' CDMA network, securing significant financial savings and freeing up valuable spectrum for more efficient use.

V. THE PROPOSED TRANSACTION MATERIALLY IMPROVES T-MOBILE USA'S ABILITY TO PROVIDE A MORE COMPETITIVE LTE NETWORK AND TO CHALLENGE LARGER, MORE SPECTRUM-ADVANTAGED, NATIONWIDE CARRIERS.

19. Not only is access to additional spectrum necessary to address congestion on T-Mobile USA's and MetroPCS' networks, but this additional spectrum will also enable a LTE deployment that puts Newco on a much stronger competitive footing to be able to compete against the other nationwide LTE providers. As noted above, it is clear that network speed and advanced capabilities are key marketing differentiators for consumers. One critical benefit of this transaction is Newco's ability to evolve to a 20 x 20 MHz LTE deployment configuration in many major urban markets. Absent this transaction, T-Mobile USA and MetroPCS will continue to lag behind other competitors that have more robust LTE networks. The afforded 20 x 20 MHz LTE configuration will produce a high performing service that will also be less complex to deploy than one relying on several smaller spectrum blocks and the broad use of carrier aggregation technology between different spectrum blocks.

20. As described in more detail below, operating LTE in contiguous spectrum has several advantages over the use of carrier aggregation. First, it alleviates the need to rely on specialized technology that currently is not fully supported on the roadmaps of network and device vendors. Second, contiguous spectrum simplifies device and network equipment and leads to better battery life for consumers. Finally, contiguous spectrum provides uniformity in service and data speeds for subscribers.

21. Initially, having access to a 20 x 20 MHz LTE network allows Newco to avoid expending resources to deploy the same nascent carrier aggregation technology of other large nationwide providers, better enabling the combined company to compete. In the United States, the other providers are focusing R&D resources on ensuring that their particular version of carrier aggregation – customized to their specific spectrum configurations – is prioritized for development. By contrast, support for 20 x 20 MHz LTE deployment is already standardized and widely available in devices and network solutions.

22. Next, LTE carrier aggregation requires the device to be capable of supporting simultaneous transmission and reception in both bands. This requires the use of two radio modems operating in parallel, each consuming battery power and thereby reducing battery life the customer might otherwise utilize for productive means. Deploying a 20 x 20 MHz LTE network relieves the operator of these complexities and provides an important consumer benefit of longer battery life. The battery life of smartphones is a key concern for customers and while battery technology continues to evolve, no economically viable and material improvements in the capacity of smart phone batteries are being promised by suppliers.

23. Finally, employing a 20 x 20 MHz LTE network ensures that the full mobile broadband pipe can be consistently utilized across the entire cell footprint. The ultimate