Subcommittee on Communications and Technology Hearing on "Protecting Consumers and Competition: An Examination of the T-Mobile and Sprint Merger" February 13, 2019

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Jerry McNerney (D-CA)

- 1. Mr. Legere, I wanted to give you an opportunity to respond to the questions that I raised during the hearing regarding the pricing commitment noted in the letter that you sent to FCC Chairman Pai on February 4, 2019 and in the ex parte filing that your company's counsel filed with the FCC on February 4, 2019.
 - a. Under the proposed commitment, if a small amount of data is added to the T-Mobile and Sprint legacy plans, could consumers see an increase in the amount they pay for their plans?

Response: No, New T-Mobile will either add the data at no additional charge or it will have the option of creating a new plan with more data while maintaining the legacy plan with the old data amount at the same price. The terms of the Pricing Commitment allow New T-Mobile to replace a legacy rate plan only after it introduces "better plans that offer a lower price or more data," and defines a better plan as either (1) the same plan with a lower price, (2) the same plan with more data for the same price, or (3) the same plan with a lower price *and* more data. Therefore, a legacy plan can be replaced by a new plan only if the new plan provides all of the same features with a lower price, or all of the same features with both a lower price and more data.

b. Under the proposed commitment, could legacy T-Mobile and Sprint fees be hiked?

Response: No rate plan fees under New T-Mobile's control can be increased. T-Mobile's "Taxes and Fees Included" program is included in the Pricing Commitment. The Taxes and Fees Included rate plans in effect as of February 4, 2019 will continue with no added charge for post-merger increases in taxes or fees. The taxes and fees costs in retained legacy rate plans without Taxes and Fees Included can be adjusted under the existing terms of those plans only "to pass through cost increases in taxes, fees and surcharges" that are initiated by the government or by third parties, whom New T-Mobile cannot control.

c. Under the proposed commitment, could legacy T-Mobile and Sprint surcharges be increased?

Response: No rate plan surcharges under New T-Mobile's control can be increased. T-Mobile's "Taxes and Fees Included" program is included in the Pricing Commitment. The Taxes and Fees Included rate plans in effect as of February 4, 2019 will continue with no added charge for post-merger increases in taxes or fees. The surcharge costs in retained legacy rate plans without Taxes and Fees Included can be adjusted under the existing terms of those plans only "to pass through cost increases in taxes, fees and surcharges" that are initiated by the government or by third parties, whom New T-Mobile cannot control.

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Yvette D. Clarke (D-NY)

1. Increasing diversity on corporate boards is not just about fairness; it's also in the economic interests of companies themselves. Corporate leaders who better reflect the consumer base can offer new perspectives and act as a failsafe against groupthink. Unfortunately, people of color and women remain significantly underrepresented on corporate boards and in senior management positions.

In your testimony before the Committee, in response to my questioning, you promised to provide my office with a detailed analysis of the diversity of the boards of T-Mobile and Sprint, as well as the likely racial and gender composition of the board of a future New T-Mobile.

a. In addition to supplying specific racial and gender information about the current T-Mobile board, current Sprint board, and future New T-Mobile board, will you commit to increasing diversity in senior management positions at each of these entities?

Response: T-Mobile's board currently consists of 12 members. A quarter of the members of the board consists of people of color or women. These members also hold key positions on major board committees. The board has an African-American member who is also chair of the Compensation Committee, an Asian-American who is chair of the Audit Committee, and a woman who serves as the Lead Independent Director and the chair of the Nominating & Corporate Governance Committee. The members of the board of New T-Mobile have not yet been specifically identified, other than for four prospective members that include an Asian and Latino. Over time, New T-Mobile's goal is to increase the diversity of the members of its board to better represent its customer base and the communities in which it operates, and T-Mobile will evaluate the makeup of its board on an ongoing basis.

T-Mobile embraces diversity and inclusion. When senior management positions open, T-Mobile actively seeks to identify, recruit, and promote qualified minority and women candidates. The company also devotes significant resources to the career development of employees that will enable the company to eventually achieve greater diversity in senior management roles. Today, T-Mobile has four women or people of color in senior management positions, including roles such as EVP for customer care, EVP of communications, EVP of integration, and EVP of human resources. New T-Mobile will retain a Vice President of Diversity and Inclusion who will have primary responsibility for implementing the company's Diversity Strategic Plan.

T-Mobile recently signed a memorandum of understanding with the National Diversity Council in which New T-Mobile committed to evaluate the makeup of its board on an ongoing basis,

consider a diverse pool of board candidates, and hire a Vice President of Diversity and Inclusion who will have primary responsibility for implementing the company's Diversity Strategic Plan.

- 2. Together, T-Mobile and Sprint control 60% of the pre-paid cell phone market. Specifically, Metro and Boost are currently operated by T-Mobile and Sprint, respectively. For many constituents of mine who are unable to afford traditional cell service, these alternatives can be critical. In response to questions from the FCC, I understand T-Mobile promised to not eliminate any of its prepaid brands. But there is a difference between eliminating brands and eliminating competition.
 - a. What assurances can you make that if Metro and Boost share common ownership, they will continue to compete with each other on price, quality, and service?

Response: Following the merger, New T-Mobile plans to maintain the existing Sprint and T-Mobile prepaid brands, including Boost and Metro, and will position these brands to serve different customers with different prepaid plan preferences. T-Mobile's Pricing Commitment applies to prepaid services (as well as postpaid) and provides that all rate plans offered by Metro and Boost will continue to be made available for three years following the merger. Therefore, the prices set by their existing competition remain available to customers. In addition, like postpaid customers, all prepaid customers under these rate plans will receive the benefits of New T-Mobile network improvements, including the 5G network's increased network capacity, broader coverage, and higher speeds at no extra charge. In particular, Sprint customers on prepaid plans will quickly experience significant improvements in coverage on the New T-Mobile network, as those with compatible handsets will for the first time enjoy domestic data roaming that fills in coverage gaps, and Boost customers will benefit from access to a deeper and much larger (approaching ten times greater) handset ecosystem that will provide better functionality.

Respectfully, there is no separate "pre-paid cell phone market" and the FCC has consistently found that both prepaid and postpaid wireless services fall within a combined mobile telephony/broadband services product market. Furthermore, T-Mobile and Sprint together do not have 60 percent of pre-paid subscribers. And following the merger, there will continue to be significant competition in prepaid. This competition will apply pricing pressure on the New T-Mobile prepaid brands, further ensuring that they keep prices low. For example, Tracfone, the largest provider of prepaid mobile service today with nearly 22 million customers, will continue to exert significant competitive pressure on New T-Mobile after the merger, as will AT&T's Cricket and Verizon's prepaid brand. Moreover, the distinction between prepaid and postpaid has all but disappeared. By lowering prices and forcing competitors to do away with key segment differentiators such as long-term service contracts, T-Mobile has helped make postpaid service accessible to more and more consumers.

b. Have you discussed the possible divestiture of either of these brands, with assurances of continued network access, as a condition of the merger?

Response: Our business plan is to retain all T-Mobile and Sprint prepaid brands post-merger. This merger will provide New T-Mobile the scale and resources to take the Un-carrier movement to the next level and into new market segments. The combined company will have lower costs and the incentives to engage in aggressive pricing to expand its LTE customer base and ultimately it 5G customer base as the industry continues its major transformation towards 5G.

3. In order to maintain our innovation edge, it is critical that America intensify our efforts to deploy 5G. Proponents of this deal have argued the merger will enable the combined company to make these investments. But in 2011, after T-Mobile sought to merge with AT&T and the Obama Administration rejected the deal on antitrust grounds, T-Mobile soon thereafter made a multi-billion dollar network upgrade, while also lowering prices.

a. If the merger is rejected, what approach will each of your companies take towards 5G deployment?

Response: T-Mobile will, of course, continue our Un-carrier strategy absent the transaction, but our ability to provide the cost-saving plans and disruptive changes consumers appreciate will be more constrained.

Current standalone plans are to continue 5G deployment on 600 MHz. Such a 5G network will be significantly weaker than the 5G network possible as New T-Mobile. Low-band spectrum, such as T-Mobile's 600 MHz spectrum, can provide only limited capacity, meaning that standalone T-Mobile will offer only a relatively thin layer of 5G service. While standalone T-Mobile will eventually migrate its mid-band spectrum to 5G, that spectrum is currently being used to provide LTE service. T-Mobile cannot migrate that spectrum to 5G quickly without degrading the experience on its LTE network, which the company will not do. T-Mobile also hopes to be able to deploy 5G on millimeter wave ("mmWave") spectrum, but we only have mmWave spectrum in select areas, and its propagation characteristics, particularly limited range and in-building penetration, considerably limit the commercial viability of deploying mmWave outside of dense urban environments.

Thus, while T-Mobile is in the process of launching a 5G network, without the merger, it will not be able to provide a broad and deep nationwide 5G network anytime soon. In contrast, by bringing together complementary spectrum assets and creating a lower cost structure, the merger will provide New T-Mobile with the capability and incentive to accelerate the transition to 5G.

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Tom O'Halleran (D-AZ)

1. What areas of Arizona does T-Mobile cover today with its own network? Are there any planned changes to that coverage? How will the merger affect coverage in Arizona?

Response: T-Mobile has good coverage throughout major corridors and population centers in Arizona and has been expanding coverage with our 600 MHz low-band spectrum, as it becomes available. New T-Mobile would not only expand this coverage but would greatly strengthen capacity and speed. T-Mobile is building out its 600 MHz low-band spectrum now with 5G-capable equipment and plans on turning on 5G later this year with nationwide coverage expected in 2020. However, while our 600 MHz spectrum provides good coverage, the capacity provided by our 600 MHz holdings is relatively thin. The merger combines T-Mobile's low-band band spectrum with Sprint's mid-band 2.5 GHz spectrum to accelerate deployment and provide a massive increase in speed and capacity. Consumers will begin experiencing benefits in terms of speed and coverage nearly from day one as we integrate the networks. By 2021 well over 95 percent of Arizona residents will enjoy 5G coverage and by 2024 nearly 100 percent of the population will be covered by 5G at average speeds in the 100s of Mbps. In addition to the build out across the state and in rural areas, T-Mobile will also be adding six new retail stores by 2020.

2. I am concerned about what I have heard about the ramifications of four-to-three wireless mergers in countries around the world.

a. Why won't prices increase as a result of this transaction?

Response: Mobile broadband prices are falling similarly in countries with four mobile network operators and in countries with three mobile network operators. *See* Empirica and TÜV Rheinland, *Mobile Broadband Prices in Europe 2018* (Feb. 25, 2019), <u>https://bit.ly/2HrX8JF</u> ("2019 EC Report"). Other studies, including reports by the International Center for Law Economics reach the same conclusion. *See* Letter from International Center for Law and Economics to Hons. Jerrold Nadler, et al., House Judiciary Committee (Feb. 28, 2019), *available at* <u>https://bit.ly/2FM3kcX</u>. The 2019 EC report even characterized three-operator countries such as Italy, France, Austria, and Germany as "inexpensive" or "relatively inexpensive" for mobile broadband prices. In Europe and around the world, greater scale by wireless operators can—and has—led to consumers paying less and getting more.

In our case, New T-Mobile's business plan is to use the combined company's increased capacity and reduced costs to dramatically lower prices to aggressively compete with AT&T, Verizon, and other competitors. This plan, which was presented to investors to receive financing for the transaction, recognizes that the merger will provide New T-Mobile with the needed resources to

continue and supercharge the Un-carrier strategy that transformed the wireless industry for the better.

T-Mobile's engineers and outside economists demonstrated how the merger will lower prices and increase consumer welfare by modeling the transaction using a series of conservative assumptions that validate the business plan. Notably, Dr. David Evans has estimated that as a result of the merger, price per GB of data will decline by nearly 55 percent. Indeed, this economic work is conservative in that it does not consider the damage to the T-Mobile brand that would result from a price increase. We owe our success to being a consumer-friendly and disruptive force in the wireless industry. Suddenly shifting course by increasing prices would severely tarnish the brand we have worked so hard and invested so much to build, likely leading to a substantial loss in consumer appeal and substantial increase in churn.

In addition, the transaction will lower prices for broadband service by creating new competition to the Big Cable monopolies. By 2024, the competition and new alternatives created by this merger will save as much as \$7 to \$13 billion *annually* in lower broadband prices.

3. I am concerned about the potential impact this merger could have on the Lifeline and Tribal Lifeline Program, which is critical to many Arizonans in my rural district.

a. What would this merger mean for New T-Mobile's long-term commitments for servicing these programs in Arizona?

Response: This merger will offer a huge boost to Lifeline and Tribal Lifeline participants, as New T-Mobile's Lifeline customers will enjoy the same improved network as all subscribers. Barring material changes to today's Lifeline program, New T-Mobile is committed to maintaining the Lifeline services of Sprint and T-Mobile indefinitely. And within just six months, New T-Mobile expects to cover many more census blocks than Sprint does today. New T-Mobile will avoid disruption to Lifeline customers (or any other customers) during the migration of subscribers to the combined network. Following closing, New T-Mobile will rely on a brief transition period of no more than six months to implement the necessary changes to activate new Assurance Lifeline customers on the New T-Mobile platform. During this time, new Assurance Lifeline customers will receive a free handset at the time of enrollment that is compatible on both the New T-Mobile and the Sprint networks, but their service will continue to be activated on the Sprint network. Similarly, existing Assurance Lifeline customers will be migrated to the New T-Mobile network on a schedule and on terms comparable to those offered to legacy Sprint customers with similarly incompatible equipment.

b. How would a combined T-Mobile/Sprint plan to work with the FCC in supporting the Lifeline and Tribal Lifeline Programs across rural America?

Response: T-Mobile is 100% committed to the principle of universal service. Our goal is to ensure that New T-Mobile can service all areas of the country and to further the Administration's goal of bridging the digital divide. New T-Mobile expects to leverage Sprint's Lifeline expertise to use a combination of in-person and digital advertising to increase consumer awareness of Lifeline and to encourage Lifeline participation.

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Ben Ray Luján (D-NM)

- 1. In my home state of New Mexico, only 44% of the population has access to 10 Mbps LTE download speeds. In rural communities, that number is 16 percent.
 - a. Historically, T-Mobile's service has not extended to many rural areas, including New Mexico. How does this merger specifically incentivize this proposed new T-Mobile to better serve rural communities like mine? Why does T-Mobile plan to prioritize rural communities?

Response: The merger gives us the assets and means to dramatically expand our ability to serve rural communities with broader coverage, faster speeds, better quality, and in-home broadband. Neither T-Mobile nor Sprint could do that on their own. While T-Mobile is already committed to building out coverage to rural areas, the spectrum assets Sprint brings with it will dramatically improve the 5G service that New T-Mobile can offer in rural areas. Our business is banking on expansion into rural areas to meet New T-Mobile's goals. That's why we will be adding at least 600 new retail stores located to serve small towns and rural areas to attract and service customers in those areas. In New Mexico, we will be adding five new retail stores by 2020.

b. If this merger is approved, when can my constituents expect to enjoy 5G connectivity? If the merger is rejected, how would this impact T-Mobile's timeline? What would cause this delay?

Response: T-Mobile is building out its 600 MHz low-band spectrum now with 5G-capable equipment and plans on turning on 5G later this year with nationwide coverage expected in 2020, including in your district. However, while our 600 MHz spectrum provides good coverage, the capacity provided by our 600 MHz holdings is relatively thin. The merger combines T-Mobile's low-band spectrum with Sprint's mid-band 2.5 GHz spectrum to accelerate deployment and provide a massive increase in speed and capacity. Consumers will begin experiencing benefits in terms of speed and coverage nearly from day one as we integrate the networks. By 2021 well over 95 percent of New Mexico residents will enjoy 5G coverage and by 2024 nearly 100 percent of the population will be covered by 5G at average speeds in the 100s of Mbps. Without the merger, the speed and capacity of T-Mobile's 5G service will be greatly reduced compared to the capabilities of New T-Mobile's 5G network.

c. In his testimony, Mr. Berenbroick notes the importance of backhaul support from fixed broadband networks for 5G. How will the new T-Mobile address this issue as it seeks to deploy its 5G network?

Response: T-Mobile presently has substantial high-speed backhaul capabilities for its rural facilities and has concrete plans in place to further increase bandwidth to meet the performance requirements of the New T-Mobile network.

A large majority of T-Mobile's rural sites have high speed backhaul and those few that do not use temporary circuits and satellite connections to transport backhaul, while awaiting contracted fiber build-out.

Among those rural sites with high-speed backhaul, the overwhelming majority use fiber backhaul and the others currently use high speed microwave backhaul with upgrades beginning in 2019 to multi-gigabit links.

2. Another important part of connecting rural communities is the roaming agreements that regional carriers depend on. Ms. Bennett with the Rural Wireless Association notes that Sprint typically provides commercially reasonable roaming rates and terms.

a. Is T-Mobile willing to strike roaming agreements with rural carriers?

Response: Yes. T-Mobile already has agreements with more than thirty rural wireless carriers. And T-Mobile pays rural carriers the same rates to roam on their networks that T-Mobile receives when they roam on ours. T-Mobile paid rural carriers \$25 million more last year for roaming than they paid to roam on T-Mobile's network.

New T-Mobile will honor the existing roaming agreements of either Sprint or T-Mobile and will continue the long history of T-Mobile and Sprint partnering with rural carriers to further wireless deployments in rural areas. New T-Mobile will also offer to become the Preferred Roaming Partner for rural carriers, providing long-term roaming access to the robust New T-Mobile network at industry-leading terms. New T-Mobile will also cooperate with rural partners on their 5G roll-out, including providing technical assistance and advice on 5G deployments.

b. Will T-Mobile offer rates and terms similar to what Sprint has historically offered?

Response: We do not know what rates Sprint offers today, but we have already committed to honoring Sprint's existing roaming agreements including their rates. And, as mentioned before, we have more than 30 roaming agreements with rural carriers that enjoy the use of the T-Mobile network already, at industry leading terms and are open for business for all other carriers as well. We are a member of the CCA (Competitive Carriers Association) and have a great relationship with CCA and their members and offer a competitive roaming program through their HUB.

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Kurt Schrader (D-OR)

1. Will New T-Mobile build new call centers in the United States, and keep those jobs in the United States long term? What commitments has New T-Mobile made in this regard, and what commitments is it willing to make? What about existing call centers?

Response: New T-Mobile will open up to five new customer care centers, including one each in California, New York, and Kansas. Those new call centers alone will create approximately 5,000 new jobs.

2. How will this transaction affect network resiliency? What is T-Mobile doing now to improve network resiliency, and how will this merger change or otherwise affect those efforts?

Response: The merger will enhance the resiliency of New T-Mobile's network as it will massively expand the company's capacity and ability to address increased traffic, particularly during times of disaster, etc. The additional capacity that 5G technology will create will more efficiently handle peak or excessive calling periods, such as those that may be experienced immediately prior to and after a hurricane, while ensuring that data communication continues to function. New T-Mobile's 5G network will leverage "low band" frequencies, which means that the company's coverage for 5G will be expansive. Thus, while some towers may suffer damage as a result of a disastrous event, the surrounding towers can be optimized by leveraging the "low band" frequencies to create a blanket layer of coverage more quickly -- enhancing restoration efforts. Further, our increased scale from the merger will offer even greater opportunity to invest in network hardening and reliability.

T-Mobile is continuously investing in additional network enhancements to improve resiliency. Over the years, we have added network capacity to anticipate the future needs of consumers. In addition, we have engaged in extensive planning around equipment and asset prestaging and deployment, placement of permanent back-up power solutions at tower locations, investments in fiber backhaul solutions, as well as use of satellite-enabled rapid response infrastructure to help minimize impactful disruptions to the network. We conduct regular yearround testing of our incident command system and an annual planning exercise. Our hardening efforts have not only been focused on the tower infrastructure, but have included our Mobile Switching Offices and data centers, which contain much of T-Mobile's core network infrastructure that will serve 5G networks. This investment in data center hardening ensures that we have tertiary layers of redundancy in terms of back-up power and fully redundant and diversely routed backhaul traffic for voice, text and data locations. In 2019, we are further investing in network hardening initiatives, expanding our response fleet and broadening logistical vendor support. This commitment to resiliency will continue with the New T-Mobile

and the greater resources and network density of the combined companies will strengthen our efforts beyond what is possible for T-Mobile as a stand-alone company.

3. Please explain the elements of the transaction that will benefit rural America and why New T-Mobile plans to invest in rural networks, stores, and jobs.

Response: The merger gives us the tools to dramatically expand our ability to serve rural communities with broader coverage, faster speeds, better quality, and in-home broadband. Neither T-Mobile nor Sprint could do that on their own. While T-Mobile is already committed to building out coverage to rural areas, the spectrum assets Sprint brings with it will dramatically improve the 5G service that New T-Mobile can offer in rural areas. Our business is banking on expansion into rural areas to meet on New T-Mobile's goals. That's why we will be adding at least 600 new retail stores located to serve small towns and rural areas to attract and service customers in those areas.

New T-Mobile will bring more than 12,000 new jobs to rural America to work in these new stores, up to five new customer care centers, and to build out the combined companies' new infrastructure across the country.

4. Historically, T-Mobile's service has not extended to many rural areas. How is that changing today and why? What difference will the merger make in covering rural America? If the merger is approved, will you commit to making rural coverage a priority?

Response: Prior to 2017, T-Mobile didn't have the low-band spectrum resources to deploy competitive service in rural America. The 600 MHz auction changed that, giving T-Mobile a nationwide footprint of low band spectrum. Some of that 600 MHz spectrum is still encumbered by television stations in many areas so deployment is being done in phases.

Historically for standalone T-Mobile, the higher costs of building out rural areas, with fewer potential subscribers and comparatively stronger Verizon and AT&T incumbent presence, has been a practical deterrent to rural expansion. However, New T-Mobile will have the improved financial metrics, larger customer base, and more powerful network, to make an aggressive rural push not only feasible, but also profitable. Today, T-Mobile is committed to expanding coverage in rural America, and this merger will combine T-Mobile's growing rural network with Sprint's complementary assets to deliver a true nationwide 5G network to rural areas, that will provide broader coverage, faster speeds, higher quality, and enable in-home broadband for many rural households.

5. How do rural roaming agreements work? Is T-Mobile willing to strike roaming agreements with rural carriers?

Response: T-Mobile is absolutely willing to strike roaming agreements with rural carriers, and in fact, T-Mobile already has agreements with more than thirty rural wireless carriers. More than 70 percent of those roaming agreements are bilateral, meaning T-Mobile customers can roam on the rural carrier's network, and the rural customers can roam on T-Mobile's network. These roaming agreements also feature a single, reciprocal roaming rate. Having a single price for network access means that T-Mobile pays rural carriers the same rates to roam on their networks that T-Mobile receives when they roam on our network. All told, rural carriers collectively earn \$25 million more from T-Mobile per year than T-Mobile makes from the rural providers under these reciprocal roaming arrangements.

6. What does this merger mean for rural roaming? Are there any technological compatibility regulatory issues such as e911 that limit T-Mobile's ability to offer bilateral roaming agreements with particular rural carriers?

Response: Rural America deserves to have great 5G. We are going to continue our relationships with rural carriers, honor existing agreements, and work with them to transition to new technologies. New T-Mobile will offer to become the Preferred Roaming Partner for rural carriers, providing long-term roaming access to the robust New T-Mobile network at industry-leading terms. This merger will give New T-Mobile's rural roaming partners access to the same nationwide 5G network that New T-Mobile's customers will enjoy, which will bring even more rural consumers into the 5G world.

New T-Mobile will also cooperate with rural partners on their 5G roll-out, including providing technical assistance and advice on 5G deployments.

Compatibility issues caused by rural carriers relying on outdated technology can sometimes prevent T-Mobile from entering into bilateral roaming agreements with those carriers. However, more than 70 percent of T-Mobile's roaming agreements are bilateral, and rural carriers collectively earn \$25 million more from T-Mobile per year than T-Mobile makes from the rural providers under these reciprocal roaming arrangements.

Mr. John Legere, Chief Executive Officer and President, T-Mobile US

The Honorable Steve Scalise (R-LA)

1. You have often said that Sprint and T-Mobile hold complementary spectrum assets in the 2.5 GHz and 600 MHz bands. What efficiencies are associated with these particular spectrum assets? How does that translate into more innovation and opportunities for consumers?

Response: The merger will allow New T-Mobile to use the two firms' spectrum holdings collaboratively, which will put the available spectrum to its most efficient use, especially for 5G service. This efficiency will allow New T-Mobile to roll out better 5G more quickly and cheaply.

A full range of spectrum for 5G is important to guarantee a robust 5G network. Low-band spectrum, such as T-Mobile's 600 MHz spectrum, can provide broad coverage, both in-building and in rural areas, but only has limited capacity. By contrast, mid-band spectrum, like Sprint's 2.5 GHz spectrum, provides significant capacity but has more limited coverage and less-favorable in-building propagation characteristics than low-band spectrum. High-band spectrum provides significant capacity, but has extremely limited range, making it uneconomical except in dense urban areas. T-Mobile currently has significant holdings of low-band spectrum and some high-band spectrum, but lacks mid-band spectrum unencumbered by LTE. As a result, standalone T-Mobile's 5G network will have "broad" coverage but relatively "thin" capacity. By contrast, Sprint has large holdings of 2.5 GHz spectrum, but lacks low-band spectrum. Standalone Sprint's 5G network will thus have geographically "narrow" coverage but "deep" capacity.

New T-Mobile, however, will be able to deploy 5G on low-band, mid-band, and high-band spectrum. On T-Mobile's 600 MHz, it will continue existing deployment plans. T-Mobile's limited mid-band spectrum will be used to provide customers with uninterrupted LTE connectivity, while Sprint's more robust mid-band spectrum will be used to deploy 5G. Other capacity efficiencies will free up the AWS and PCS spectrum, for use in intermediate ranges. Using spectrum more efficiently translates into creating more capacity with the same amount of spectrum. Creating more capacity on its 5G network sooner will incentivize New T-Mobile to push handset makers and subscribers to adopt 5G more quickly. As subscribers do transition, they will move off of New T-Mobile's LTE network and thus allow more spectrum of all types to be transitioned to 5G. This creates a virtuous cycle of capacity improvement that will further accelerate the transition to 5G.

The accelerated transition to 5G and the associated increase in wireless capacity will also incentivize application developers to more quickly develop new applications enabled by 5G. For instance, applications that require or are made far more valuable by higher screen resolutions (e.g., 1080p or 4K) will be more viable on 5G networks that carry far more capacity.

Augmented and virtual reality applications will also become increasingly more feasible with the capacity and lower latency 5G networks will bring. Importantly, these are just known examples. Just as how 4G and LTE made unforeseen applications like Uber possible for wireless networks, so will 5G bring unforeseen innovations. The merger will bring both known and unknown applications to market more quickly and help push the United States to center of their development.

2. I understand the 600 MHz repack process is nearing completion of Phase 2 of its 10 planned phases. I was also pleased to hear Chairman Ajit Pai declare at a speech in February of this year that the repack is ahead of schedule. However, there is still a lot of work to be done in order to get this spectrum into the commercial market. The United States is committed to winning the race to 5G, and rapid deployment of the 600 MHz spectrum is an important component of ultimately winning that race. Will you please comment on the importance of keeping the 39-month repack timeline on schedule and what that means for the deployment of 5G services in Louisiana and across the country?

Response: The 600 MHz band is critical for T-Mobile's strategy of bringing 5G to all of America. There are portions of the country with low population densities, including Louisiana, where T-Mobile lacked the low-band spectrum necessary to construct a competitive wireless network. The 600 MHz auction allowed T-Mobile to purchase a nationwide footprint of low-band spectrum that allows for cost-effective deployment in less densely population areas of the United States.

The 600 MHz low-band spectrum T-Mobile acquired is not available for use until incumbent television operators exit the band. Therefore, keeping the television broadcasting transition on track is critical to T-Mobile, and we have partnered with over 100 broadcast stations to help them move early. With the completion of Phase 2, more than 400 broadcasters have vacated their old channel assignments, allowing T-Mobile to deploy over 6000 sites using the 600 MHz spectrum for 4G, and eventually 5G, to bring competition to tens of millions of people living in rural America. And this site count is increasing by the hour.

In Louisiana specifically, several broadcasters just transitioned out of the 600 MHz in the past few weeks allowing T-Mobile to begin turning on 600 MHz sites. T-Mobile has brought more than 50 sites on air in Louisiana and has even begun extending 600 MHz service to the outlying waters off the coast that serve the oil industry. We have plans to turn on hundreds of more sites by the end of 2019, which averages to more than one new 600 MHz base station every day of the year.

T-Mobile has worked constructively with broadcasters and the broadcasting ecosystem to bring more resources to bear on the transition, including more tower crews and additional equipment. While hiccups are inevitable in large projects of this sort, the transition is progressing more rapidly and smoothly than some parties predicted. T-Mobile will continue work with the FCC and the broadcasting industry to bring the 600 MHz transition to a timely conclusion.