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T-Mobile/Sprint Merger Offers Public Interest Benefits: Likely Presents a Fast Track to 5G

by

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I. Introduction and Summary

The FCC is currently reviewing the proposed merger between T-Mobile and Sprint. There is strong evidence that the merger, if approved, would benefit consumers and businesses by enabling faster mobile broadband speeds, higher data capacity, and reduced per-megabit prices. A combined T-Mobile/Sprint likely would have the resources needed to rapidly deploy a nationwide 5G network. And the combined company likely would be able to compete more effectively against current wireless market leaders AT&T and Verizon as well as other service providers in the broader multi-platform broadband market.

In view of the dynamism and competitive market conditions for mobile wireless and for digital broadband communications services more generally, the public interest benefits of the merger appear to outweigh any concerns for consumers. On its face, the proposed T-Mobile/Sprint merger appears to satisfy the public interest standard for FCC approval. Of course, the Commission must closely scrutinize the merger, but it is important that it do so in a timely manner.

Consistent with the Free State Foundation's practice, this paper's purpose is not to specifically endorse the proposed T-Mobile/Sprint merger. Rather, its purpose is both to identify principles by which the FCC properly should evaluate all such mergers and to spotlight key competitive and public interest factors connected to this particular proposed merger.

A primary public interest benefit connected to the T-Mobile/Sprint merger is its potential to spur more rapid 5G mobile network deployment than likely would occur absent the merger. If approved, the new entity would combine Sprint's 2.5 GHz spectrum with T-Mobile's nationwide 600 MHz spectrum and other assets into a nationwide 5G network to be deployed over a three-year span. The next-generation network potentially will have thirty times more capacity than T-Mobile's existing network and feature speeds up to 100 times faster. The merger appears to offer the new T-Mobile a faster track to nationwide 5G coverage. If approved, the merger likely will act as a spur to the new T-Mobile's competitors, and this, in turn, will serve to boost to U.S. leadership efforts in the global race to 5G.

The enhanced data traffic capacity of 5G will be essential to supply skyrocketing future mobile broadband demand. According to the June 2018 Ericsson Mobility Report: "Total [global] mobile data traffic is forecast to rise at a compound annual growth rate (CAGR) of 43 percent, reaching close to 107 exabytes (EB) per month by the end of 2023." T-Mobile and Sprint project that their 5G network's monthly capacity would reach 6.8 exabytes in 2021 and climb to 20.3 exabytes by 2024. Even if these estimates happen to fall short, it is nonetheless clear that huge increases in network capacity will be required to satisfy rapidly rising demand growth.

Advanced 5G networks will enable "smart city" capabilities such as smart street lighting as well as optimized public transportation and electric utilities. Further, industrial, manufacturing and other enterprise sectors will benefit from Internet-of-Things (IoT) devices connected via 5G networks. Moreover, increased data traffic supply will likely put downward pressure on per-megabit prices for retail consumers as well as business enterprises.

FCC merger precedents expressly recognize the public interest benefits of transactions that accelerate 5G network deployment. For example, *Verizon/XO Order* (2016) characterized "the rollout of 5G technology" as an "important Commission policy priority for the general benefit of all consumers." Similarly, the *Verizon/Nextlink Leasing Order* (2016) recognized the public interest of "facilitating in the near-term the development of innovative 5G services." Public interest benefits from expeditious 5G deployment that were observed in those orders are presented by the proposed T-Mobile/Sprint merger and are likely to be obtained if the transaction is approved.

It appears unlikely that the potential public interest benefits of accelerating 5G network deployment would be outweighed by any potential harms resulting from T-Mobile/Sprint. If approved, the proposed merger would result in the loss of one nationwide mobile service provider. However, post-merger, consumers still would have a significant choice of wireless service providers. T-Mobile and Sprint are the distant third and fourth largest nationwide providers, respectively. At the end of 2016, their market shares of mobile wireless services revenues were 15.4% and 13.4% compared to Verizon's 36.8% and AT&T's 32.8%. Post-

merger, the new T-Mobile's wireless network resources and total subscriber base would much more evenly match the current top two providers.

Meanwhile, Comcast's Xfinity Mobile entered the wireless market last year, relying on cable network infrastructure and Wi-Fi hot spots in combination with broadband network capacity. Xfinity Mobile service has nearly 600,000 subscribers, with future increases expected. Charter Communications has announced its plans to launch a hybrid Wi-Fi/cellular mobile wireless service. DISH network owns valuable spectrum licenses and has announced plans to launch an IoT network as well as a 5G network. These competitive conditions diminish the likelihood of any significant and sustained price increases above market levels, post-merger. And Commission precedents like the *CenturyLink/Level 3 Order* (2017) factor future competitive entry into the competitive analysis.

Additionally, Commission precedents such as the *AT&T/DIRECTV Order* (2015) expressly recognize that the potential public benefits of new technologies and services enabled by mergers can outweigh the loss of a market competitor. Similarly, it is probable that the potential benefits of 5G enabled by T-Mobile/Sprint would outweigh any potential concerns from the loss of one national wireless service provider. Specifically, the benefits from faster speeds and lower prices due to faster 5G deployment are likely to offset price increases, if any, that might otherwise be triggered by the loss of the distant number four wireless carrier. Also, both enterprise customers and retail consumers are likely to realize benefits from the availability of the new T-Mobile's proposed 5G network.

Indeed, the multiplicity of 5G-related services and applications is a solid indication of the reality of today's dynamic communications marketplace. In this Digital Age of all-IP networks, broadband services increasingly are characterized by cross-platform convergence and competition. Consumers and business enterprises access data through distinct but routinely complementary technologies such as mobile wireless, fixed wireless, fiber-optic wireline, Wi-Fi, and satellite. The Commission's market analysis should reflect this dynamic reality.

In a June 20, 2018, speech, FCC Commissioner Michael O'Rielly warned against "the imposition of rigid restrictions as part of transactional reviews" because they are "far devoid from market realities," such as competition from new technologies and services. According to Commissioner O'Rielly, overly narrow market definitions often lead agencies to subject transactions to "additional regulations or limitations beyond what is necessary to protect consumers," inhibiting the ability of legacy providers to compete against new technologies in the market.

Importantly, it appears unlikely that T-Mobile and Sprint separately would have the capital resources necessary to invest in and timely deploy nationwide 5G networks that could compete effectively with AT&T and Sprint. T-Mobile lacks mid-band spectrum while Sprint lacks low-band spectrum. Separately, the two providers would have reduced 5G network capacities and require longer periods to transition existing spectrum resources from prior-generation networks to 5G. Furthermore, the record of the past several years shows AT&T and Verizon have been investing more than T-Mobile and Sprint, both in absolute terms and relative to their market shares. Post-merger, AT&T and Verizon will each have a larger market share than the new T-

Mobile. But if approved, the T-Mobile/Sprint would likely be a stronger competitor to the market leaders than either provider would be absent the merger. Indeed, AT&T and Verizon would likely accelerate their own 5G network investments and expansions in response to T-Mobile/Sprint's stronger competitiveness.

In sum, the proposed T-Mobile/Sprint merger's enablement of a rapidly deployed nationwide 5G network capable of providing faster speeds, increased capacity, and reduced per-megabit prices would significantly benefit consumers and enterprises. The significant public interest benefits likely to be realized appear to outweigh any potential harm in the competitive wireless marketplace. In any event, the T-Mobile/Sprint merger deserves a review that is speedily completed within the Commission's 180-day shot clock.

II. The Proposed Transaction

According to reports, T-Mobile and Sprint have agreed to combine pursuant to an all-stock transaction worth $26.5 billion. The two providers will combine to form a new T-Mobile that will be based in Bellevue, Washington, and led by T-Mobile's current CEO John Legere. Under the agreement, T-Mobile's majority owner, Deutche Telekom, will own 42% of the new entity and Sprint's majority owner, SoftBank, will own 27%. Public shareholders will own the remainder. Pending approvals by reviewing federal agencies, T-Mobile and Sprint anticipate the proposed merger to be complete by or before July 2019.

In a May 2018 video announcement of the proposed merger, T-Mobile CEO John Legere stated that the combined entity would be "the only company with the capacity to quickly create a broad and deep nationwide 5G network," emphasizing it would achieve such a result "in the first few years of the 5G innovation cycle." The application submitted to the FCC by T-Mobile and Sprint describe their plans to deploy a nationwide 5G network over the course of three years, based on $40 billion in future investment.

According to Legere, neither T-Mobile nor Sprint would be able to such a result separately. Legere explained that the new T-Mobile would combine Sprint's 2.5 GHz spectrum with T-Mobile's nationwide 600 MHz spectrum and other combined assets to "build the highest capacity mobile network in US history." He also projected the new T-Mobile's 5G network would have thirty times more capacity than T-Mobile's current network and feature peak speeds up to 100 times faster.

Sprint Executive Chairman and former CEO Marcelo Claure also stressed the necessity of rapid 5G deployment in the technology's earliest years to ensure leadership and economic vitality. Claure put the proposed merger in the broader context of recent entry into the video and wireless markets by major competing rivals such as AT&T and Comcast, observing: "Industry lines are blurring, and wireless, video, and broadband – they're all converging." The two executives thus identified the new T-Mobile as having the scale and the advanced network resources necessary to successfully compete in that competitive convergent environment.

Additionally, Claure stated that by combining Sprint's enterprise services with T-Mobile's resources would create a strong competitive alternative for commercial and government

customers. Legere stressed the new T-Mobile would bring improved services and competitive choices to rural customers. And both executives declared that the proposed merger would create thousands of new American jobs, employing more people than either entity would separately.

But in order to be consummated, the proposed T-Mobile/Sprint merger must receive regulatory approvals by federal agencies. The U.S. Department of Justice will conduct its review pursuant to the Hart-Scott-Rodino Act. And because T-Mobile/Sprint involves the transfer of spectrum licenses, the merger must also receive approval by the FCC.

III. Merger Review by the FCC and DOJ

Under 310(d) of the Communications Act, the FCC reviews mergers and acquisitions that involve spectrum license transfers. Also, the Commission reviews mergers involving common carrier services under Section 214(a). Pursuant to its reviews, the Commission determines whether or not they will serve "the public interest, convenience, and necessity." The Commission applies a balancing test that weighs potential public interest harms of the proposed merger against potential public interest benefits. The prospective merging parties bear the burden of proving, by a preponderance of the evidence, that the merger, on balance, would serve the public interest.

Consistent with FCC merger precedents, the Commission's competitive analysis of T-Mobile/Sprint will likely be based on what it defines as the "mobile telephony/broadband services" product market, which consists of mobile voice and data services. And in terms of geographic market definitions, local markets will likely be the focus of the Commission's analysis, but with attention also paid to nationwide competitive effects. As will be discussed, the Commission also ought to factor the dynamism of the broadband marketplace and the convergence between wireless, wireline, and satellite technologies into its competitive analysis. Further, there is an informal timeline or "shot clock" of 180 days during which the Commission routinely – but by no means always – conducts its merger review and makes its public interest determination.

Additionally, the Department of Justice will review the merger according to Section 7 of the Clayton Act, which requires that the DOJ show in court that the merger would substantially lessen competition or tend to create a monopoly. These terms are economic concepts, so the DOJ review, unlike the FCC review, will have to be confined to the likely economic implications of the merger. As the June 2018 U.S. District Court decision in the AT&T/Time Warner merger case shows, the DOJ's burden will be to provide convincing evidence that anticompetitive harms due to the merger outweigh the economic benefits of the merger to consumers. However, the FCC's merger review is the focus of this paper.

IV. Due to Mobile Broadband Market Competition, T-Mobile/Sprint Merger Unlikely to Cause Significant Harms

On the surface, it is unlikely that any potential harms resulting from the proposed T-Mobile/Sprint merger would outweigh the potential public interest benefits of accelerating 5G network deployment. If approved, the proposed merger would reduce the number of nationwide

mobile service providers from four to three. However, consumers would still have a significant choice of wireless service providers. And competition between nationwide providers, regional providers, and recent as well as potential market entrants would also protect consumers from anticompetitive conduct.

Today's competitive and dynamic conditions in the markets for mobile wireless broadband services and for digital communications services more generally provide critical context for the Commission's assessment of the potential public interest benefits and harms of the proposed T-Mobile/Sprint merger. Several signs of such competitiveness and dynamism in the mobile broadband market were observed in The FCC's 2017 Wireless Competition Report (*"Twentieth Report"*). In particular, the *Twentieth Report* identified robust competition among mobile broadband service providers, heavy investment in infrastructure, rapid technological innovation, expanding data and pricing plans, continuously changing consumer habits, and consistently declining per-megabit prices. Based on those characteristics and others identified in the *Twentieth Report*, the FCC concluded: "[T]here is effective competition in the mobile wireless services marketplace."[1]

The post-merger wireless market would include three national carriers – the new T-Mobile, plus AT&T and Verizon. Importantly, the proposed merger is of the two national carriers with the smallest coverage areas in terms of revenues, connections, and geography. At the end of 2016, T-Mobile maintained a wireless revenues market share of 15.4% while Sprint maintained a 13.4% share. As such, both providers ranked a distant third and fourth compared to market leaders Verizon (36.8% market share of revenues) and AT&T (32.8%).[2] In terms of connections, T-Mobile had 74.5 million (17.1% of all connections) and Sprint had 59.5 million (14.3 %) at year's-end 2016, while Verizon had 145.8 million connections (35%) and AT&T had 134.8 million (32.4%).[3]

Currently, AT&T covers approximately 99.3% of the U.S. population and 71.9% of the U.S. land area, while Verizon covers about 97.4% of the population and 67% of land area. The coverage areas for T-Mobile and Sprint are smaller. T-Mobile covers 95.2% of the U.S. population and 47.6% of U.S. land area. And Sprint covers 92.1% of the population and 27.5% of land area.[4] Thus, if an area is currently reached by three or fewer carriers today, in most cases that is because either T-Mobile or Sprint does not reach the area.

Table 1: Wireless Coverage by National Carriers
(in percentages of United States)

Carrier	Population	Road Miles	Land Area
AT&T	99.3%	91.0%	71.9%
Verizon	97.4%	87.2%	67.0%
T-Mobile	95.2%	70.9%	47.6%
Sprint	92.1%	51.7%	27.5%

Source: *Twentieth Report*, at ¶ 76.

The coverage story is similar for high-speed LTE wireless broadband coverage by the four national carriers. If an area is covered by three or fewer LTE broadband carriers it is usually due to either T-Mobile or Sprint not reaching the area.

Table 2: LTE Mobile Broadband Coverage by National Carriers
(in percentages of United States)

Carrier	Population	Road Miles	Land Area
AT&T	97.6%	76.7%	53.1%
Verizon	97.0%	85.1%	64.5%
T-Mobile	94.6%	69.5%	46.3%
Sprint	87.8%	42.3%	19.9%

Source: *Twentieth Report*, at ¶ 78.

Post-merger, consumers would also continue to have a choice from rural and regional providers. As the *Twentieth Report* observed, U.S. Cellular is a multi-regional service provider and the nation's fifth largest provider. At the end of 2016, U.S. Cellular provided services to its customers with approximately five million connections. And C Spire, the sixth largest provider, provides service to nearly one million subscribers in the Southeastern United States. Dozens of other facilities-based service providers offer service in rural geographic areas. The *Twentieth Report* explained: "These non-nationwide service providers increase choice for consumers and help to promote deployment in rural areas."[5]

Indeed, consumers have shown a willingness to switch providers – a further indication of vigorous competition. The amount of "churn," or percentage of connections that are disconnected from mobile wireless service, has been increasing. The *Twentieth Report* cited fourth quarter 2016 churn rates of 1.3% for Verizon Wireless, 1.7% for AT&T and T-Mobile, as well as 2.2% for Sprint. Further: "In the fourth quarter of 2016, industry weighted monthly churn was 1.61 percent, its highest in two years."[6]

Furthermore, recent wireless market entry by Comcast and future entry from other entities such as Charter Communications and DISH Network provides choices for consumers as well as competitive checks against anticompetitive conduct in the market. Traditional cable providers are already established providers of bundled voice, video, and data services, and therefore are suited to provide competitive mobile wireless services, leveraging their existing broadband network capacity and nationwide deployment of Wi-Fi hotspots. Cable providers are already firmly established in the voice services market. The Commission's *Voice Telephone Services Report* indicates that at year's end 2016, interconnected VoIP connections outnumbered switched access lines offered by traditional incumbent local exchange carriers, 63 million to 58 million.[7]

In particular, Comcast launched its Xfinity Mobile service in April 2017. The service for mobile wireless voice calling, texting, and mobile data relies on Comcast's network capacity – including 18 million Xfinity Wi-Fi hot spots – in combination with network capacity leased from Verizon Wireless for out-of-area voice and data transmission. Xfinity Mobile enrolled 577,000 subscribers through the first quarter of 2018. Analysts have predicted new subscriber numbers will continue climbing. It is reported, for instance, that New Street Research expects Comcast's

new enrollments to sharply increase during the second half of 2018 and that Xfinity Mobile subscribership could reach 2 million connections within the near future.[8] Meanwhile, Charter has announced plans to launch a similar hybrid Wi-Fi/cellular mobile wireless service sometime in 2018. Also, DISH Network owns valuable spectrum licenses and has announced plans to launch an IoT network as well as 5G network services.

These competitive conditions, including entry or potential entry by new competitors, diminish the likelihood of significant and sustained price increases above market levels, post-merger. Importantly, Commission precedents like the *CenturyLink/Level 3 Order* factor future competitive entry into the competitive analysis.[9]

V. Due to Dynamism of the Broadband Marketplace and Cross-Platform Competition, T-Mobile/Sprint Merger Unlikely to Cause Significant Harms

Of course, the market shares above suggest that mobile broadband is a defined market for purposes of antitrust analysis. Traditional market definitions, such as a "mobile broadband" market or "mobile telephony/broadband services", are now likely to be overly narrow when it comes to evaluating the market power of Verizon, AT&T, and the new T-Mobile. In this Digital Age of all-IP networks, broadband services are increasingly characterized by cross-platform convergence and competition. Consumers and business enterprises access data through distinct but routinely complementary technologies such as mobile wireless, fixed wireless, fiber-optic wireline, Wi-Fi, and satellite. The Commission's market analysis should reflect this dynamic reality.

In a recent speech FCC Commissioner Michael O'Rielly warned against using overly narrow and outdated market definitions in transaction reviews:

> From the viewpoint of many, both the FCC and Department of Justice have been stuck in administrative molasses, seeking to apply sectoral market analysis, preserve questionable bright line tests, and continue the imposition of rigid restrictions as part of transactional reviews the same way now as in 2008, 1988, or 1958. I would posit that the entire foundation of how the government currently views the "communications" market – be it voice, video, or data – is outdated and misguided. . .
>
> The problem with such an approach, of course, is that when you narrowly define a marketplace and narrowly recognize competition – far devoid from market realities – the result typically leads to the application of additional regulations or limitations beyond what is necessary to protect consumers. Perhaps that's just the nature of the beast. But, as Judge Leon recognized in his decision [in the DOJ challenge to the AT&T/Time Warner merger], there has been a "veritable explosion" in the media marketplace in just the last five years. . . Broadly, this means that, given the extensive competition from new technologies, the current generation of legacy media will only flourish, and perhaps survive, if the government recognizes this marketplace reality.[10]

Thus, the Commission should heed the lesson from the AT&T/Time Warner decision and avoid defining the market overly narrowly. Rather, the Commission should factor cross-platform competition into its competitive analysis. Indeed, the proposed T-Mobile/Sprint merger and faster 5G deployment will also have benefits for consumers of non-wireless broadband. T-Mobile and Sprint raise this important point in their merger application to the FCC:

> New T-Mobile's robust, nationwide 5G network will eliminate the speed and capacity differential between mobile and in-home wired broadband for many Americans, allowing millions more Americans to free themselves from the grip of traditional in-home broadband providers. The new 5G network's speeds, capacity, and low prices will allow consumers to "cut the cord" and use their mobile wireless service as their broadband service both inside and outside the home and pocket the savings from eliminating an unnecessary and costly wired broadband bill month after month. New T-Mobile will also offer an aggressively priced wireless in-home broadband solution to compete head-on with the traditional providers. [11]

Even if full 5G deployment does not entirely eliminate the speed and capacity differential between mobile and wired broadband, it will make mobile broadband a more viable option for a substantial share of wireline customers. As such, faster deployment will make 5G wireless broadband more competitive with wireline, and therefore increase competition in any market that includes wireline services, further blurring the distinction between a wireless market and a wireline market.

Satellite broadband services also reflect the market's dynamism and convergence around IP-based communications networks. In particular, fixed-satellite broadband services are increasingly offering consumers and businesses access with 25 Mbps, 50 Mbps, and even 100 Mbps download speeds. Near-future satellite broadband technologies, including hybrid terrestrial-satellite networks, are anticipated to reach terabit-level speeds. The Satellite Industry Association's 2017 report indicates that there were nearly two million residential subscribers to geostationary fixed satellite broadband services at the end of 2016.[12] These emerging services provide another potent source of competition that should factor into the Commission's analysis. Rapid deployment of 5G networks will be necessary to complement and to compete against satellite competition in the present and near-future market for broadband services.

VI. T-Mobile/Sprint's Public Interest Benefits: Spotlight on Rapid 5G Deployment

T-Mobile and Sprint have declared their intention to combine spectrum resources and other assets in order to quickly build a nationwide 5G mobile broadband network. Certainly, the FCC will recognize the proposed next-generation network deployment as the merger's primary public benefit.

Near-future 5G wireless networks will feature faster speeds, higher capacity, and improved reliability. Indeed, 5G potentially will enable average speeds up to 10 times faster than 4G networks and peak speeds up to 100 times faster.[13] The increased data traffic capacity of 5G will be essential to supply skyrocketing future demand. According to the June 2018 Ericsson

Mobility Report: "Total mobile data traffic is forecast to rise at a compound annual growth rate (CAGR) of 43 percent, reaching close to 107 exabytes (EB) per month by the end of 2023."[14] In comparison, global mobile data traffic totaled about 15 exabytes per month in 2017. Video viewing will continue to drive mobile data demand, with mobile video traffic forecast to increase 45% annually through 2023 and account for 73% of mobile data traffic that year. Ericsson also projects that more than 20% of U.S. mobile data traffic will be carried by 5G networks in 2023. And it predicts that 48% of mobile subscriptions in North America in 2023 will be for 5G. Against this backdrop of sharply increasing demand for data, T-Mobile and Sprint project that their 5G network's monthly capacity would reach 6.8 exabytes in 2021 and climb to 20.3 exabytes by 2024. Importantly, the increased data traffic supply to be realized from the proposed merger will likely put downward pressure on per-megabit prices for retail consumers as well as business enterprises.

Advanced 5G networks will enable "smart city" capabilities such as smart lighting that will automatically dim street lights when pedestrians and vehicles are not present. Public transportation systems and electric utilities will be optimized by 5G-enabled smart devices. Cities are expected to realize millions in cost savings from such capabilities. Further, industrial, manufacturing, and other enterprise sectors will benefit from Internet-of-Things (IoT) devices connected via 5G networks. Smart device and sensor-embedded equipment connectivity will enable precision agriculture to produce optimum yields at reduced costs and also enable safe manufacturing operations involving heavy equipment that requires pinpoint accuracy. Accenture has projected global IoT-related real GDP contributions of $10.6 trillion dollars by 2030.[15] FCC precedents recognize the public interest benefits of mergers that enable more rapid and widespread deployment of next-generation broadband networks. In its *T-Mobile/MetroPCS Order* (2013), for instance, the Commission recognized that the proposed merger of two providers and their network assets and spectrum "would provide for a broader, deeper, and faster LTE deployment than either company could accomplish on its own."[16]

More recent FCC precedents expressly recognize the public interest benefits of transactions that accelerate 5G network deployment. For example, the *Verizon/XO Order* (2016) recognized the public interest benefits to be realized from acquiring "wireline backhaul capability in areas where Verizon does not have fiber facilities to connect wireless cells… will allow Verizon to more quickly deploy 5G than if it had to build or lease the fiber assets itself."[17] And the order characterized "the rollout of 5G technology" as an "important Commission policy priority for the general benefit of all consumers."[18] Similarly, the *Verizon/Nextlink Leasing Order* (2016), recognized the public interest of "facilitating in the near-term the development of innovative 5G services" by approving a proposed lease transaction that would advance Verizon's "aggressive schedule in developing 5G technology" beyond what it could achieve in the absence of the transaction.[19] Additionally, the *Verizon/Straight Path Order* (2018) credited "the expeditious use of this spectrum for the potential introduction of innovative 5G services to the benefit of American consumers."[20] The Commission should thus recognize that many of the same public interest benefits from expeditious 5G deployment that were observed in prior merger review orders are presented by the proposed T-Mobile/Sprint merger and are likely to be obtained if the transaction is approved.

VII. Public Interest Benefits of 5G Deployment Likely Outweigh Potential Harms from Loss of One National Wireless Provider

Horizontal mergers result in the elimination of one choice for products or services in the market. But such integrations only pose market power and anticompetitive conduct concerns where the market in question is or will become concentrated or offers consumers limited choices. Importantly, the potential harm to consumers from horizontal integrations is significantly diminished where the market in question is characterized by rapidly changing technologies, service offerings, and consumer habits. Furthermore, the potential public benefits resulting from horizontal integrations – including the deployment of new and advanced services – can outweigh potential concerns resulting from the loss of one competing provider.

Commission precedent expressly recognizes that the potential public benefits of new technology and service offerings enabled by mergers can outweigh the loss of a market competitor. In the *AT&T/DIRECTV Order* (2015), for instance, the Commission "recognize[d] that because AT&T and DIRECTV both offer video services, post transaction, there w[ould] be a loss of a video provider within the U-verse video footprint." But the Commission concluded: "[T]his very limited potential for competitive harm, when balanced against the benefits of the transaction, does not require a condition" to regulate standalone prices of DIRECTV in approving the merger.[21] The Commission's approval was based on its determination that the AT&T/DIRECTV merger would "result in greater competition for bundles of video and broadband and that this increased competition will benefit consumers, thus serving the public interest" and that "the benefits of a stronger combined competitor" outweighed the "loss of an independent competitor" in U-verse's video footprint.[22]

Similarly, it is likely that the potential benefits of 5G deployment enabled by the proposed T-Mobile/Sprint merger would outweigh any potential concerns from the loss of one national wireless service provider. According to T-Mobile's application to the FCC, the merger will result in the parties doubling their capacity and lowering their costs of delivering data to customers, so that New T-Mobile will be able to "compete aggressively with lower prices to take market share from Verizon and AT&T."[23] The economic analysis included with the application claims this faster 5G buildout by the merging companies as well as the competitive responses from Verizon and AT&T will lead to as much as a 55% decrease in price per GB and a 120% increase in cellular data supply for all wireless customers.[24] Indeed, AT&T and Verizon would likely accelerate their own 5G network investments and expansions in response to T-Mobile/Sprint's stronger competitiveness. And if the merging parties' application claims are even halfway correct, the 5G benefits spurred by the merger should greatly outweigh any increase in prices, if there are any, that result from the loss of one competitor that is far smaller than the market leaders.

As indicated previously, competition in the wireless services market from nationwide, regional, and new entrants diminish the likelihood of significant and sustained price increases above market levels, post-merger. T-Mobile/Sprint is likely to be a much stronger competitor to market leaders AT&T and Verizon than T-Mobile and Sprint would be absent the merger. Also, both enterprise customers and retail consumers are likely to realize benefits from the availability of the new T-Mobile's proposed 5G network – the timely deployment of which appears to depend upon the merger's approval.

VIII. T-Mobile/Sprint Merger Is Likely the Only Realistic Path to a 5G Network That Can Compete Closely With AT&T and Verizon

Rapid deployment of 5G networks must take place for consumers, enterprises, and cities to realize the promised benefits. Although T-Mobile and Sprint combined appear much more likely and capable of quickly constructing a nationwide 5G network, absent such a merger it is questionable whether the two providers separately would be able to timely finance and construct 5G networks.

T-Mobile lacks mid-band spectrum while Sprint lacks low-band spectrum. Separately the two providers would have reduced 5G network capacities. And each would likely require longer periods to transition existing spectrum resources from prior-generation networks to 5G. Additionally, the merging parties' application to the FCC indicates Sprint would initially be able to provide 5G network coverage only in major metropolitan areas and that Sprint would face major financial obstacles in adding new cell sites necessary for 5G deployment.

The record of the past several years shows that wireless service providers have made significant investments in infrastructure to expand network coverage and improve capacity. However, the two leading carriers, AT&T and Verizon, have been investing more than T-Mobile and Sprint, both in absolute terms and relative to their market shares.

Table 3: Yearly Capital Expenditure by Provider
(millions of nominal U.S. dollars)

Carrier	2010	2011	2012	2013	2014	2015	2016	Carrier Total
AT&T	$ 9,171	$ 9,764	$10,795	$11,191	$11,383	$ 9,400	$ 9,750	$ 71,454
Verizon	$ 8,438	$ 8,973	$ 8,857	$ 9,425	$10,515	$11,725	$11,240	$ 69,173
T-Mobile	$ 2,819	$ 2,729	$ 2,901	$ 4,241	$ 4,317	$ 4,724	$ 4,702	$ 26,433
Sprint	$ 1,444	$ 2,416	$ 4,884	$ 6,833	$ 4,886	$ 4,026	$ 1,797	$ 26,286
Yearly Total	$21,872	$23,882	$27,437	$31,690	$31,101	$29,875	$27,489	$ 193,346

Source: *Twentieth Report*, at ¶ 68.

From 2010 to 2016, AT&T's capital investment was $71 billion, Verizon's was $69 billion, and the combined investment by T-Mobile and Sprint lagged behind at $53 billion. The difference is even greater in 2016, when AT&T invested $10 billion, Verizon $11 billion, and the combined investment by T-Mobile and Sprint was only $6 billion. Investment by the two leading mobile service providers, AT&T and Verizon, is disproportionate even to their market shares. The

market shares of AT&T and Verizon will each be a little larger than the share of a combined T-Mobile and Sprint.

It appears unlikely that T-Mobile and Sprint would separately have the capital resources necessary to invest in and timely deploy nationwide 5G networks that could compete closely with AT&T and Verizon. Furthermore, build-out and operation of a next-generation mobile wireless network involves significant costs in migrating subscribers onto the new network and closing down older-generation networks. Such migration would be particularly challenging to T-Mobile and Sprint separately given their relatively smaller pool of financial and spectrum resources. A combined T-Mobile/Sprint would be a much stronger 5G competitor to the market leaders than either provider would be absent the merger.

IX. T-Mobile/Sprint Merger Is Likely to Enhance Competition for Mobile Wireless Enterprise Services

Furthermore, FCC precedents such as the *CenturyLink/Level 3 Order*, the *Verizon/XO Order*, the *Charter/Time Warner Cable Order* (2016), and *Time Warner Cable /Insight Order* (2012) recognize the public interest benefits from expanded network capacities and locations for serving interstate business enterprises. As the *Charter/Time Warner Cable Order* declared, "an expanded footprint may increase a firm's ability to compete for multi-location customers for business services that have operations beyond the firm's pre-transaction service area."[25] By increasing their reach and control over in-network services, enterprise broadband providers can provide more customized price and service offerings, reduce data traffic handoffs to other providers, and identify and resolve service disruptions for enterprise customers.

Both T-Mobile and Sprint offer mobile wireless services to business enterprises. By combining their wireless backhaul and other network assets, the new T-Mobile likely would be better positioned to attract and retain multi-site business enterprises than either provider would be absent the merger. Indeed, the T-Mobile/Sprint merger's anticipated acceleration of 5G network capabilities improve the new T-Mobile's competitiveness in the enterprise services market above the competitive standing of T-Mobile and Sprint, separately. It is widely expected that manufacturing, industrial, and other business enterprises stand to be the primary beneficiaries of 5G network capabilities.

X. Potential Effects on Resellers Not Likely Harmful or Significant to Merger Analysis

Based on the observations that T-Mobile and Sprint are the largest wholesalers of mobile wireless network capacity to MVNOs, it has been claimed that the reduction of one wholesaler could raise wholesale prices for MVNOs and therefore harm consumers by causing retail prices to rise for MVNO subscribers. However, given the competitive conditions of the wireless market identified above, it is unlikely that wholesale prices would significantly increase for a sustained period post-merger. And the proposed merger presents potential 5G-related benefits that likely outweigh any potential harm in this regard. Moreover, the Commission is not going to carve out a separate MVNO product market for incorporation into its merger analysis, provided it adheres to agency precedents. Rather, the Commission will likely evaluate market competitiveness more broadly.

Resellers and MVNOs purchase mobile wireless services wholesale from other service providers and resell these services to consumers. MVNOs often target specific market segments, such as low-income consumers. The largest MVNO, TracFone, has approximately 23.7 million subscribers.[26] The Commission has previously acknowledged the benefits of MVNO options for consumers. In its *AT&T/Leap Order* (2014), for instance, the Commission stated that it assessed the effects of resellers in its competitive analysis.[27]

However, the Commission's merger precedents have focused on facilities-based providers only for its market concentration calculations. In prior merger orders involving mobile wireless providers, the Commission's competitive analysis was framed by a combined "mobile telephony/broadband services" product market that is comprised of mobile voice and data services, including mobile voice and data services provided over advanced broadband wireless networks (mobile broadband services). And Commission precedents, such as the *AT&T/Leap Order*,[28] the *Sprint/Softbank/Clearwire Order* (2013),[29] and the *T-Mobile/MetroPCS Order* (2013),[30] have rejected calls that the agency conduct separate competitive analyses according to narrower market definitions such as the MVNO market.

As explained earlier, the Commission should consider the dynamic communications marketplace more generally. Accordingly, the Commission should adhere to its precedents regarding its consideration of the competitive effects of MVNOs. For that matter, the Commission's analysis should similarly consider the effects of competing wireline and satellite platforms that offer broadband services. At the same time, because overly narrow market definitions present a distorted picture of market reality, the Commission should adhere to its precedents that reject treating MVNOs as their own, separate market. And when thus considered in the context of the dynamism of the broader communications market, including existing competition and potential competition from new entrants, it is likely that the T-Mobile/Sprint merger's 5G-related public benefits will outweigh any harm related to its competitive effects on resellers.

XI. Conclusion

A combined T-Mobile/Sprint likely would have the resources needed to rapidly deploy a nationwide 5G network and more effectively compete against wireless market leaders AT&T and Verizon than would be the case absent the merger.

If approved, the new entity intends to combine Sprint's 2.5 GHz spectrum with T-Mobile's nationwide 600 MHz spectrum and other combined assets to a nationwide 5G network that will potentially have thirty times more capacity than T-Mobile's existing network and feature speeds up to 100 times faster. The enhanced data traffic capacity of 5G will be essential to supply skyrocketing future demand. Advanced 5G networks will enable "smart city" capabilities and the Internet-of-Things (IoT) services for enterprises. Also, both enterprise customers and retail consumers are likely to realize benefits from the availability of the new T-Mobile's proposed 5G network.

Although the proposed merger would result in the loss of one nationwide mobile service provider, FCC merger precedents expressly recognize the public interest benefits of transactions

that accelerate 5G network deployment. Additionally, post-merger consumers still would have a significant choice of mobile broadband service providers. These competitive conditions diminish the likelihood of significant and sustained price increases above market levels, post-merger. Thus, it appears that any potential competitive concerns would be minimal and outweighed by potential public interest benefits.

It is probable that T-Mobile and Sprint will be able to establish, by a preponderance of the evidence, that the proposed merger is in the public interest. Of course, it is the FCC's responsibility to determine whether the proposed T-Mobile/Sprint merger actually satisfies the public interest standard. Yet whatever the FCC ultimately decides, T-Mobile/Sprint deserves a review that is speedily concluded within the 180-day shot clock.

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Further Readings

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[19] *Verizon/Nextlink Leasing Order* (2016) ¶ 9; *id*. at ¶ 25.
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