

March 11, 2019

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

REDACTED – FOR PUBLIC INSPECTION

Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

Dear Ms. Dortch:

On March 7, 2019, Cathleen A. Massey, Vice President, Federal Regulatory Affairs at T-Mobile US, Inc.;¹ Craven Shumaker, Vice President, Strategic Alliances and Business Development at T-Mobile; and Trey Hanbury and J. Ryan Thompson of Hogan Lovells US LLP, counsel to T-Mobile, met with Charles Mathias and Max Staloff of the FCC Transaction Team.

During the meeting, we addressed the numerous misrepresentations that the Communications Workers of America (“CWA”) has made about T-Mobile’s 2018 acquisition of Iowa Wireless (“iWireless”).² As discussed below and explained in the attached declaration of Mr. Shumaker,³ the iWireless acquisition not only *added* jobs in Iowa, but also provided Iowans with faster and broader wireless coverage at similar or better rates than what iWireless offered.

Throughout this proceeding, CWA has showcased seemingly large numbers to present outright falsehoods about the effect of the merger of T-Mobile and Sprint Corporation (“the Applicants”) on American jobs. CWA’s latest submissions continue to rely on the hope that CWA’s audience cannot see through the organization’s pretense of rigor as a disguise for deception.⁴ In addition to Mr. Shumaker’s presentation regarding the benefits of the iWireless transaction, T-Mobile takes this opportunity to address other misrepresentations in CWA’s submissions to the Commission.

¹ T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc. (“T-Mobile”), a publicly traded company.

² Letter from Debbie Goldman, Telecommunications Policy and Research Director, Communications Workers of America, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-197 (filed Mar. 1, 2019) (“CWA March 1 Letter”).

³ See Declaration of Craven Shumaker, *attached hereto* as Attachment A (“Shumaker Decl.”).

⁴ See Letter from Debbie Goldman, Telecommunications Policy and Research Director, Communications Workers of America, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-197 (filed Feb. 27, 2019) (“CWA February 27 Letter”).

This filing contains Confidential Information pursuant to the Protective Order filed in WT Docket No. 18-197. Accordingly, pursuant to the procedures set forth in the Protective Order, a copy of the filing is being provided to the Secretary's Office. Two copies of the Confidential Filing are being delivered to Kathy Harris, Wireless Telecommunications Bureau. A copy of the Redacted Confidential Filing is being filed electronically through the Commission's Electronic Comment Filing System.

* * *

CWA's Falsehoods about iWireless. CWA misleadingly claims that T-Mobile's 2018 acquisition of iWireless, a small Midwestern wireless operator with 289 employees, forced businesses to lay off workers.⁵ In reality, post-acquisition employment remained at the same level it was before the iWireless acquisition through year-end 2018, and T-Mobile intends to grow employment in Iowa this year.⁶ By the end of 2019, T-Mobile anticipates that retail T-Mobile and Metro locations will drive T-Mobile's total Iowa employee count to 359—nearly 25 percent year-over-year growth.⁷

CWA relies on sleight of hand to conjure up job losses from the reality of stable and growing jobs at the company. According to CWA, the iWireless transition resulted in significant store closures and lost jobs. Although CWA has claimed that 90 percent of authorized iWireless dealers closed,⁸ many of those iWireless authorized dealer locations were electronics stores, convenience stores, hardware stores, and other retail locations that still remain in business today.

CWA assumed that a standalone wireless retailer was equivalent to a pawnshop that sold iWireless service on the side prior to the acquisition.⁹ When that pawnshop stopped reselling iWireless, CWA proclaimed that an "iWireless store" had "closed." That characterization is misleading for a variety of reasons. When a pawnshop stops selling iWireless, there is usually no loss in employment and the pawnshop still remains in business. And pawnshops do not generally provide the award-winning customer service subscribers have come to expect from the Un-carrier. Due to inconsistent customer service and unpredictable costs, T-Mobile transitioned iWireless outlets from "store within stores" to standalone retail stores operating under the Metro by T-Mobile ("Metro") brand.¹⁰

In any case, CWA's grim portrayal of store-shuttering is simply not true. While some corporate stores were closed, T-Mobile has opened 25 new Metro locations in Iowa since completing the acquisition.¹¹

For former iWireless customers, moreover, the T-Mobile network provides a marked improvement in coverage and quality since acquisition. T-Mobile is investing tens of millions of

⁵ See CWA, *Disrupting Rural Wireless: How A T-Mobile Takeover Harmed Consumers And Small Businesses In Iowa*, at 13 (Feb. 2019), attached to CWA March 1 Letter ("CWA Paper").

⁶ Shumaker Decl. ¶ 8.

⁷ *Id.*

⁸ See CWA Paper at 2.

⁹ See, e.g., *id.* at 8.

¹⁰ Shumaker Decl. ¶ 4.

¹¹ *Id.* ¶ 6.

dollars in Iowa to transform the iWireless network, build out T-Mobile's 600 MHz spectrum, and prepare for 5G deployment. In addition to upgrading and overlaying new technology upon nearly half of existing sites, T-Mobile is building out several dozen additional sites. In less than a year from closing the iWireless transaction, T-Mobile has already begun implementing its aggressive network build plan and in 2018 activated dozens of new 600 MHz LTE sites and upgrades for current customers. By the end of 2019, T-Mobile anticipates providing LTE coverage to [REDACTED] percent of all Iowans and [REDACTED] percent of Iowa's geography.¹²

And just as the iWireless transaction brought jobs, investment, and a better network to Iowa, so too will the merger of T-Mobile and Sprint. With the addition of Sprint's high-capacity 2.5 GHz spectrum, the complement of low- and mid-band spectrum means improved service across Iowa. As described in the declaration of Mark McDiarmid, the combined company's spectrum portfolio allows T-Mobile's low-band and Sprint's mid-band spectrum to be used more efficiently and provide a better consumer experience.¹³ In Iowa as in much of the rest of the country, for example, Sprint's 2.5 GHz spectrum can deliver the capacity for services such as in-home broadband, and many utility companies are able to cost-effectively run fiber to neighborhoods, which provides the necessary backhaul. The improved capacity and performance of the New T-Mobile network following the merger of T-Mobile and Sprint will enhance broadband coverage, performance, and competition even further.

In addition to CWA's false claims regarding the iWireless transaction, the union's March 1, 2019 *ex parte* included questionable or untrue allegations regarding labor issues and purported jobs and earning losses. T-Mobile addresses these claims below.

CWA's Dubious Signatories. CWA claims that "818 wireless workers" signed a petition opposing the merger.¹⁴ But even a cursory inspection of CWA's petition raises serious questions whether CWA has knowingly or recklessly submitted false information to the Commission. Many of the putative signatories in the CWA petition—not the least of which include "Adam Nolasname", "Fuck Sprint", and "M"—do not appear to be actual people, let alone *bona fide* employees of T-Mobile or Sprint.¹⁵ The overall count of signatories is inflated and unverified. Many of the names on the petition, for example, appear more than once.¹⁶ On its face, then, no reason exists for the Commission to credit the CWA petition.

CWA's Far-Fetched Labor Monopsony Claims. CWA commissioned the Economic Policy Institute ("EPI") and the Roosevelt Institute to prepare a study that purports to show a decline in retail wages following the merger.¹⁷ No basis exists to credit the shoddy, outcome-driven predictions of wage decline that appear in the EPI study.

¹² See Attachment B: Iowa LTE Coverage Maps 2017-2019.

¹³ See Letter from Nancy Victory, Counsel, T-Mobile US, Inc., to Marlene H. Dortch, Secretary, FCC, Attachment A: Declaration of Mark McDiarmid, WT Docket No. 18-197 (filed Feb. 21, 2019).

¹⁴ See CWA February 27 Letter, App. A.

¹⁵ *Id.* Other questionable signatories include CL, Nevada; Jamie, Pennsylvania; [], Virginia; and [], Illinois.

¹⁶ The list of double counted names includes Stacey Brooks, Virginia; Juan Carlos Lopez, California; Lori Zellmer, Texas; Lisa Damman, California; Luis Lopez, Texas; Maik Prokop, Texas; Darkene Tatum, Arkansas; Pricilla Gomez, Texas; Stacey Morgan, Texas; Jennifer Taylor, Kansas; Vanessa Villata, Texas; and Victor Reyes, New Jersey.

¹⁷ Adil Abdela and Marshall Steinbaum, *Labor market impact of the proposed Sprint–T-Mobile merger*, Economic Policy Institute (Dec. 17, 2018), attached to CWA March 1 Letter ("EPI Study").

EPI's thesis rests on a fundamental mischaracterization of the relevant labor market. A properly defined relevant labor market represents the set of jobs that are reasonable substitutes for an employee bargaining with a prospective employer. But in an effort to show merger-specific wage decline, the EPI Study relies on an overly restrictive and improper definition of the relevant labor market—namely, “the merging parties, their prepaid affiliates, and their wireless competitors.”¹⁸

EPI's labor market definition assumes that a T-Mobile retail employee could not work at a place such as Best Buy or Target. The retail electronics labor market is, in fact, much more fluid than EPI claims it to be. And even EPI hedges its bets. As EPI concedes, “if we have defined labor markets incorrectly, then there may be greater elasticity of labor supply in response to increased market concentration (as we measure it) than there was in the samples of markets used by the studies we rely on.”¹⁹ EPI also acknowledges that its flawed definition of the labor market would represent “a further source of concern about the accuracy of our predictions.”²⁰ EPI's market definition contradicts all known facts about labor behavior in the retail electronics segment, and EPI's analysis has no predictive value as a result.

Other flaws bedevil the EPI study, too. The EPI study ignores the efficiency effects of the merger, which will raise labor productivity and thereby increase demand for workers throughout the mobile wireless ecosystem, including retail. Similarly, the EPI study fails to consider that as a result of the merger, New T-Mobile will expand into multiple new business areas including fixed broadband and video, creating new sources of demand for labor, including retail sales employees. In addition, the EPI study ignores New T-Mobile's plans to greatly expand business activity in rural areas, which will increase the demand for labor in precisely those local labor markets claimed to be most vulnerable to potential monopsony power. As T-Mobile has demonstrated, the merger overall will contribute approximately 168,600 job years²¹ in the three years following consummation, including 51,200 from the direct and induced effects of increased investment²² and 117,500 due to accelerated deployment of 5G.²³

Yet, even ignoring all of these flaws, the EPI study still does not provide empirical support for the proposition that the merger would harm retail wireless workers due to a serious technical problem in the study's approach. EPI's estimated wage effects are based on two components: (1) estimates of how the merger would change local concentration in the purported mobile wireless retail employment market;²⁴ and (2) estimates of the relationship between employment concentration in local markets and wages taken from three unpublished working

¹⁸ *Id.* at 8.

¹⁹ *Id.* at 19.

²⁰ *Id.*

²¹ Economists measure employment in terms of “job-years” to reflect the fact that the level of employment is constantly changing. One job for one year is one job-year. If that job continues for another year, the employment effect is considered to be two job-years.

²² See Description of Transaction, Public Interest Statement, and Related Demonstrations, App. I: Declaration of Jeffrey A. Eisenach, WT Docket No. 18-197, at ¶ 11 (filed June 18, 2018) (“PIS”).

²³ See Joint Opposition of T-Mobile US, Inc. and Sprint Corporation, App. K: Supplemental Declaration of Jeffrey A. Eisenach, WT Docket No. 18-197, at ¶ 2 (filed Sept. 17, 2018) (“Joint Opposition”).

²⁴ EPI Study at 5-6.

papers.²⁵ But the way in which the EPI study combines its estimates of local changes in concentration due to the merger with the econometric estimates from the underlying working papers is fundamentally flawed. Each of the working papers estimates the relationship between wages and concentration using a Herfindahl-Hirschman Index (HHI) value that was calculated based on a market definition that is much broader than the “wireless stores only” market put forward by EPI. As a result, EPI dramatically overstates the magnitude of purported wage decline by failing to adjust for the difference in market definitions.

EPI’s error—tantamount to failing to convert from miles to inches—fatally impairs its analysis. When the error is fixed, the results show that the merger will have, at most, a *de minimis* effect on wages, even if all of EPI’s other assumptions were true, which they are not.

Given the EPI Study’s analytical errors and the *de minimis* projected impact that would result when the calculations are done correctly, any conclusions that CWA draws from this study should be given no credence by the Commission.

Wildly Inaccurate Job Loss Claims. CWA has captured media attention by claiming the proposed merger would lead to the loss of 30,000 jobs.²⁶ That number, which has no basis in the companies’ internal plans or anything else, rested on demonstrably false assumptions about the de-duplication of prepaid stores and ignored New T-Mobile’s well-documented plans for post-merger job growth and investment, such as the hiring of 5,600 new call center employees and the hiring of some 1,800 employees to build and integrate the new network infrastructure. As has already been explained, CWA’s 30,000 job-loss number represents roughly the number of employees Sprint has today. New T-Mobile could not support all of its network investment and business expansion plans with the same number of Americans T-Mobile currently employs.²⁷ Contrary to CWA’s claims, the merger contemplates growth in the employee base, and the efficiencies the applicants intend to realize are driven by savings in network deployment and network operations.

CWA’s Labor Record Hypocrisy. CWA’s apparent suggestion that T-Mobile is a labor law scofflaw due to approximately 40 unfair labor practice charges—nearly all of which were filed by CWA—is another deceptive use of seemingly large numbers.²⁸ As context, the National Labor Relations Board’s (“NLRB”) database shows that more than 700 such charges have been

²⁵ See *id.* at 8 (citing José Azar *et al.*, *Concentration in US Labor Markets: Evidence from Online Vacancy Data*, National Bureau of Economic Research, Working Paper No. 24395 (Mar. 2018) (last updated Feb. 2019), <https://bit.ly/2Tphvyv>; Efraim Benmelech *et al.*, *Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages?*, National Bureau of Economic Research, Working Paper No. 24307 (Feb. 2018), <https://bit.ly/2HnHAqq>; Kevin Rinz, *Labor Market Concentration, Earnings Inequality, and Earnings Mobility*, Center for Administrative Records Research and Applications, U.S. Census Bureau, Working Paper No. 2018-10 (Sept. 2018), <https://bit.ly/2XOF95O>).

²⁶ Reply Comments of Communications Workers of America, WT Docket No. 18-197, at 2 (filed Oct. 31, 2018) (“CWA Reply Comments”).

²⁷ Joint Opposition at 111-13.

²⁸ CWA also claims that “T-Mobile has more unfair labor practice charges per employee than any other large company, including Walmart.” CWA Feb. 27 Letter at 3 (citing CWA Reply Comments at 67-70). CWA cites itself in support of this claim and provides no other data, and the cited page numbers do not exist. Presumably the intent was to cite its initial petition to deny, but it is not possible to determine because those page numbers do not support this claim either. There is no factual basis for the assertion, and until CWA produces evidence to be rebutted, T-Mobile will not address it further.

filed *against* CWA during this same period.²⁹ More than 300 such charges have been filed against Verizon and 1,100 such charges have been filed against AT&T, approximately 25 times more charges than T-Mobile has received.³⁰ Indeed, T-Mobile received zero unfair labor practice charges in 2018, compared with more than 70 charges against CWA. By CWA's measure, T-Mobile now has one of the best labor records in the country.³¹ If CWA were concerned about the welfare of employees, it should endorse T-Mobile's strong employment track record as an example for other employers to follow.

Baseless Speculation about Prepaid Store Closures. In its latest filings, CWA presented several maps purporting to show the proximity of Boost and Metro retail stores. This analysis came from CWA's review of the companies' websites as of May 2018. As the Applicants have already explained, however, CWA's assumption that New T-Mobile will eliminate half of all Boost Mobile stores by combining them with Metro stores is simply wrong. In what is essentially an unsigned economist declaration, CWA attributes 4,213 store closures and approximately 13,000 jobs lost as a result of this assumption.³² But as John Legere explained in response to a question from Congress, "New T-Mobile does not plan to combine nearby MetroPCS and Boost stores."³³ To the contrary, New T-Mobile's business plan calls for retaining both the Metro and the Boost Mobile brands because each brand has its own identity and caters to different customer segments.³⁴

* * *

CWA's repeated misrepresentations, reliance on egregiously flawed "studies," use of false assumptions, and misuse of statistics raise serious questions about its integrity, credibility, and candor. Based on CWA's track record here and elsewhere,³⁵ the Commission should not give CWA's assertions any weight.

²⁹ See Case Research Page, National Labor Relations Board, <https://bit.ly/2VTeWBz>.

³⁰ See *id.*

³¹ The CWA's claim that "the NLRB found T-Mobile *guilty* of engaging in nationwide labor law violations *against workers*" is wrong in two respects. First, there is no guilty finding in a case brought under the National Labor Relations Act ("NLRA")—there is no criminal aspect to such matters, and the standards for finding against an entity do not involve the procedures available in a criminal matter. To characterize these findings as "guilty" findings is to misrepresent the nature of such proceedings. Second, none of the cases CWA mentions involves a finding that T-Mobile violated the NLRA by taking action against an employee. Rather, the matters referred to by CWA involved claims that T-Mobile policy language was inconsistent with the NLRB's interpretation of the NLRA—there was no evidence that any employee was affected in any way by these policies.

³² Comments of Communications Workers of America, App. D: Methodology for Estimating Store Closures and Retail Job Losses Following the Proposed Transaction, WT Docket No. 18-197, at 8 (filed Aug. 27, 2018).

³³ U.S. Senate, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Hearing, *Game of Phones: Examining the Competitive Impact of the T-Mobile – Sprint Transaction* (June 27, 2018), <https://bit.ly/2EYGnUC>.

³⁴ PIS, App. C: Declaration of G. Michael Sievert at ¶ 11.

³⁵ The FCC has repeatedly rejected CWA's jobs predictions as baseless in many merger review proceedings. See, e.g., *Applications Filed by Altice N.V. and Cablevision Systems Corporation to Transfer Control of Authorizations from Cablevision Systems Corporation to Altice N.V.*, Memorandum Opinion and Order, 31 FCC Rcd 4365, 4377-78 (2016) ("We conclude that CWA's claims that Applicants will finance the transaction by job cuts are speculative"); *Applications of Deutsche Telekom AG, T-Mobile*

March 11, 2019

This letter is being filed under section 1.1206(b) of the Commission's Rules. Please direct any questions regarding this submission to me.

Respectfully submitted,

/s/ Trey Hanbury

Trey Hanbury
Counsel to T-Mobile US, Inc.

Attachments

cc: David Lawrence
Jim Bird
Joel Rabinovitz
Monica DeLong
Chris Smeenk
Aalok Mehta
Bill Dever
Charles Mathias
Catherine Matraves
Max Staloff
Kirk Arner
Aleks Yankelevich

USA, Inc., and MetroPCS Communications, Inc., Memorandum Opinion and Order and Declaratory Ruling, 28 FCC Rcd 2322, 2349-51 (2013); *Applications of SOFTBANK CORP., Starburst II, Inc., Sprint Nextel Corporation, and Clearwire Corporation*, Memorandum Opinion and Order, Declaratory Ruling, and Order on Reconsideration, 28 FCC Rcd 9642, 9670 (2013) (rejecting as “speculative and unsubstantiated” CWA’s claims that the transaction would not lead to significant job creation); *Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licensees*, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4327-30 (2011) (rejecting CWA’s requests to place employment- and labor-related conditions on applicants’ merger application); *Applications Filed for the Transfer of Certain Spectrum Licenses and Section 214 Authorizations in the States of Maine, New Hampshire, and Vermont from Verizon Communications Inc. and its Subsidiaries to FairPoint Communications, Inc.*, Memorandum Opinion and Order, 23 FCC Rcd 514, 539 (2007) (rejecting CWA’s concerns regarding job losses as “speculative” and “not supported by the record.”).

**ATTACHMENT A: DECLARATION OF JAMES CRAVEN SHUMAKER
VICE PRESIDENT, STRATEGIC ALLIANCES AND BUSINESS DEVELOPMENT,
T-MOBILE US, INC.**

DECLARATION OF JAMES CRAVEN SHUMAKER
Vice President, Strategic Alliances and Business Development, T-Mobile US, Inc.

1. My name is James Craven Shumaker. I am currently employed as Vice President of Strategic Alliances and Business Development at T-Mobile US, Inc. (“T-Mobile”). Prior to joining T-Mobile, I was the President and CEO of Iowa Wireless (“iWireless”), a position that I held for more than six and a half years. iWireless was a regional wireless carrier operating in Iowa, Illinois, and Nebraska as a partnership between T-Mobile and Iowa Network Services. In my role as President and CEO, I was responsible for all aspects of the business, including overseeing day-to-day operations, marketing and brand management, customer care, product development, engineering, network management, vendor negotiations, partner management, human resources, and training.

2. In January of 2018, as part of T-Mobile’s acquisition of iWireless, I joined the company as Vice President of iWireless integration, responsible for overseeing the integration of iWireless’ customers, employees, network, and other property. I have first-hand knowledge of the customer migration, network transition, and the retail distribution network in Iowa both before and after the acquisition.

3. I have reviewed the Communications Workers of America’s March 1 written *ex parte* letter filed in the FCC’s merger docket, and the accompanying report entitled “Disrupting Rural Wireless.”¹ As discussed below, both the letter and the report are rife with false statements and misrepresentations, and fail to provide an accurate description of the iWireless integration process.

¹ Letter from Debbie Goldman, Telecommunications Policy and Research Director, Communications Workers of America, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-197 (filed Mar. 1, 2019).

Retail Presence in Iowa and Jobs

4. Prior to integration, iWireless had 289 employees and the company's retail presence was made up of 27 corporate "stores" and 27 authorized dealer "stores." Many of these "stores" were store-within-a-store concepts or kiosks. These authorized dealers were located in electronics stores, convenience stores, groceries, hardware stores, and other retail locations throughout the state, often in geographic areas where it would not have been economical for a company of iWireless' limited scale to maintain a standalone retail store. The use of these authorized dealers allowed iWireless to maintain a geographic retail presence in difficult to serve rural areas, but they presented the challenges of inconsistent customer service and unpredictable costs.

5. In its cover letter and report, CWA claimed that 90 percent of authorized iWireless dealers closed subsequent to the T-Mobile's acquisition. That is untrue. The Hy-Vee locations, the pawnshops, and the independent telephone companies who were designated as authorized dealers in Iowa stopped selling iWireless. But these grocery stores, pawnshops, and telephone companies remain in business and continue to provide service to the public. They simply no longer offer iWireless mobile phones to the public.

6. Instead of these authorized dealers, T-Mobile has *opened* 25 new Metro locations in Iowa since the acquisition, and now operates a total of 12 T-Mobile locations.

7. CWA claims that as part of the acquisition T-Mobile closed two iWireless customer service call centers, but iWireless did not have two call centers in 2018 when T-Mobile acquired the company—only a single call center in Cedar Rapids, Iowa. iWireless once operated a second call center in Des Moines, Iowa; however, iWireless closed that call center in 2015, years before the T-Mobile acquisition.

8. All told, T-Mobile's acquisition of iWireless resulted in post-transaction employment just as large as pre-transaction employment (289 employees). T-Mobile plans to continue

aggressively expanding its retail footprint in Iowa and anticipates expanding its total Iowa employee count to 359 by the end of 2019. This increase in employment equates to 25 percent year-over-year growth in employment following T-Mobile's acquisition of iWireless.

Substantial Network Improvements Post-Acquisition

9. Prior to the integration, iWireless's 2G and 3G service was vastly inferior to the quality of T-Mobile's mobile broadband service. iWireless had no low-band spectrum and relatively limited 4G LTE coverage.

10. But the integration with T-Mobile has already drastically improved our customers' network experience. As the attached coverage maps illustrate, thanks to T-Mobile's continued investment in infrastructure and technology the new integrated network has better coverage (in terms of population and geography), better throughput, and a path to 5G throughout the state.

11. T-Mobile is already investing more than \$70 million to transform the network by building out its 600 MHz spectrum and continues to grow its network footprint and performance throughout the state as shown in the attached maps.

12. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed on March 11, 2019.

/s/ Craven Shumaker

Craven Shumaker
Vice President, Strategic Alliances and
Business Development
T-Mobile US, Inc.

ATTACHMENT B: IOWA LTE COVERAGE MAPS 2017-2019

Figure 1: LTE Network Coverage – EoY 2017

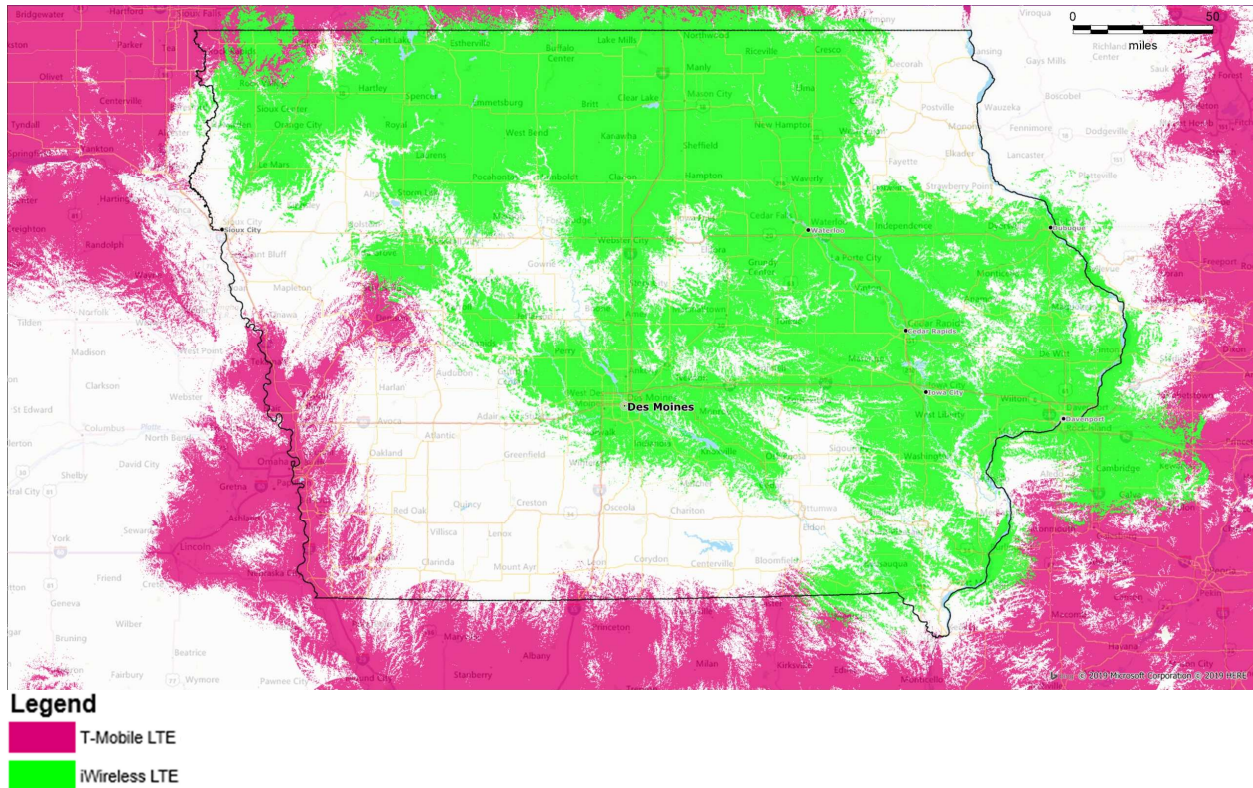


Figure 2: LTE Network Coverage – EoY 2018

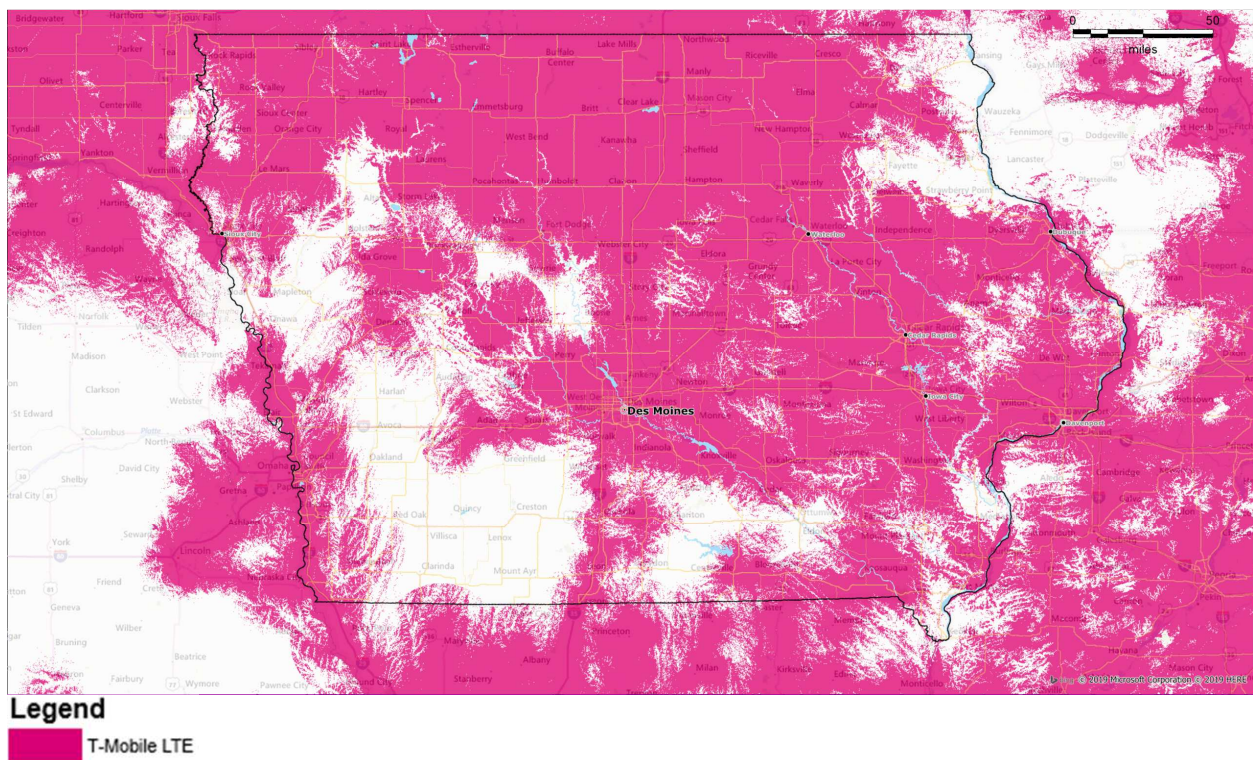


Figure 3: LTE Network Coverage – Forecasted EoY 2019

