

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Modernizing the FCC Form 477 Data Program)	WC Docket No. 11-10
)	
Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership)	WC Docket No. 07-38
)	
Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering)	WC Docket No. 08-190
)	
Review of Wireline Competition Bureau Data Practices)	WC Docket No. 10-132
)	

COMMENTS OF T-MOBILE USA, INC.

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I. Introduction and Summary

T-Mobile USA, Inc. (“T-Mobile”) submits these comments in response to the Federal Communication Commission’s (“Commission”) Notice of Proposed Rulemaking (“NPRM”) on how best to modernize the Wireline Competition Bureau’s (“Bureau”) Form 477 Data Program.¹ T-Mobile recognizes that it is important for the Commission and others in federal, state, and local governments to have access to appropriate information about wireless coverage and data transmission capabilities in order to better assess the impact of broadband policies and determine where attention needs to be focused, particularly with respect to broadband deployment and

¹ *Modernizing the FCC Form 477 Data Program*, Notice of Proposed Rulemaking, WC Docket Nos. 11-10, 07-38, 08-190, and 10-132 (rel. Feb. 8, 2011) (“NPRM”).

availability, universal service, and public safety capabilities. For this reason, T-Mobile has supported and participated in the mapping projects undertaken by the National Telecommunications and Information Administration (“NTIA”)-funded State Broadband Data and Development Grant Program (“SBDD”) mapping projects that have yielded the landmark National Broadband Map (“Map”).

This NPRM represents the first time the Commission has comprehensively reviewed its Form 477 data collection since the enactment of the Broadband Data Improvement Act of 2008.² Pursuant to the BDIA and the American Recovery and Reinvestment Act,³ the Commission collaborated with the NTIA to create the National Broadband Map. Although the first generation of the Map will benefit from improvements going forward, as the Commission now examines its own data collections under Form 477, it should use the Map to the maximum extent possible. Further, as the Map will be updated semi-annually, the Commission has the opportunity to use targeted, rather than general, information collections to supplement information already being voluntarily submitted by providers to improve the Map. In addition, to the extent the Commission is concerned, for example, that some providers do not participate in the SBDD mapping projects, it should focus its attention on those entities and not require SBDD participating providers to duplicate their data submission burdens. To do otherwise would potentially hinder participation in the SBDD projects.

More fundamentally, as the Commission undertakes its redesign of Form 477, it should approach Form 477 reform for mobile wireless providers as if it were designing a form specifically for mobile wireless rather than as part of a wireline data collection. As the NPRM

² Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008) (“BDIA”).

³ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (“Recovery Act”).

recognizes, mobile wireless services inherently differ from fixed line services – most notably in that they permit calling from anywhere that the subscriber is located rather than just one fixed location. Thus, subscriber billing address is not a useful proxy for mobile wireless availability, and instead the Commission should focus on mobile wireless coverage. Similarly, because mobile wireless operates through the open air rather than in the pristine spectrum environment of an enclosed wire and necessarily involves users sharing spectrum within a cell sector, “actual” speed estimates are even less meaningful for wireless services than for wireline services.

Moreover, as the Commission considers collecting additional information through Form 477, it should heed the President’s call to get “rid of absurd and unnecessary paperwork requirements that waste time and money”⁴ and to “cut[] down on the paperwork that saddles businesses with huge administrative costs.”⁵ As the Office of Management and Budget (“OMB”) recently reiterated, “[p]aperwork and reporting requirements impose significant burdens on the American people, including those who run businesses, both large and small.”⁶ In addition, the Paperwork Reduction Act “prohibits any federal agency from adopting regulations which impose paperwork requirements on the public unless the information is not available to

⁴ President Barack Obama, *Toward a 21st Century Regulatory System*, WALL ST. J., Jan. 18, 2011, *available at* <http://online.wsj.com/article/SB10001424052748703396604576088272112103698.html>.

⁵ Barack Obama, Remarks by the President to the Chamber of Commerce, U.S. Chamber of Commerce Headquarters, Washington, D.C. (Feb. 7, 2011) (transcript available from the Office of the Press Secretary), *available at* <http://www.whitehouse.gov/the-press-office/2011/02/07/remarks-president-chamber-commerce>.

⁶ Memorandum from Cass R. Sunstein, Administrator, Executive Off. of the President, Office of Management and Budget, to Chief Information Officers (Feb. 23, 2011), *available at* http://www.whitehouse.gov/sites/default/files/omb/inforeg/icb/2011_ICB_Data_Call.pdf.

the agency from another source within the Federal Government.”⁷ Consistent with the President’s call and the requirements of the Paperwork Reduction Act,⁸ the Commission should:

- Use information already in the hands of the government such as the NTIA’s Broadband Map rather than require providers to submit data that duplicates the scope and purpose of that map.
- Focus on information that carriers already maintain for business purposes, such as projections of coverage and signal strength for voice and various data transmission technologies, rather than requiring the creation of new information.
- Streamline data collection by allowing multi-state filings, and wherever possible, collect data in the form maintained in the normal course of business.
- Not require the submission of additional speed data, which would have little utility and questionable accuracy.
- Not require submission of price data, which it can already collect from carrier websites.
- Not collect service quality data. Service quality is already monitored by numerous organizations and publications, and carriers compete over service quality.
- Only collect subscription information on a national, rather than state, county or census tract/block basis.

II. For Wireless Carriers, the Commission Should Focus on Coverage and Advertised Maximum Speeds Rather Than Subscriber Addresses, and Should Utilize the NTIA’s Broadband Map in Lieu of Further Form 477 Reporting Obligations.

As the NPRM acknowledges, mobile wireless broadband presents a different set of reporting issues from wireline broadband services.⁹ Mobile wireless broadband is just that – mobile. Mobile broadband also operates through the open air, both inside and outside, rather than in the pristine spectrum environment of a closed copper, coaxial, or fiber optic cable, which means that signal strength and carrying capacity (which relates to throughput speed) can vary

⁷ *Dole v. United Steelworkers of Am.*, 494 U.S. 26, 32 (1990).

⁸ 44 U.S.C. § 3501 *et seq.*

⁹ NPRM ¶ 61.

based on location and environmental conditions. Thus, the predominantly wireline-focused Form 477 is not the best or even a good tool for gathering relevant mobile broadband data.

A. Coverage Area, Not Subscriber Billing Address, Reflects Wireless Broadband Deployment and Availability.

Coverage data provides the most accurate indicator of mobile broadband and mobile telephony deployment and availability.¹⁰ Unlike wireline broadband services, for which subscriber billing address frequently correlates exactly with the fixed location where service is provided, mobile wireless broadband availability depends on where a consumer can receive an adequate signal. As the NPRM recognized, “For mobile service, a billing address can provide a subscriber’s home location but does not reflect the entire coverage area where a mobile broadband network is available; nor would a billing address necessarily be reflective of the primary usage area of the subscriber, particularly in the case of family plans and for businesses.”¹¹

As T-Mobile noted in its recent comments, mobile users often use wireless broadband and telephony services miles away from their billing addresses, whether running errands, at work, or visiting friends and family locally or out-of-state.¹² Thus, to evaluate mobile wireless broadband deployment and mobile alternatives available to consumers, the Commission should examine coverage information, rather than subscriber addresses, as the primary deployment data.

¹⁰ Comments of T-Mobile USA, Inc., WC Docket No. 10-132, 3-6 (filed Aug. 13, 2010) (“T-Mobile Data Practices Comments”).

¹¹ NPRM ¶ 61. For example, many college students may be part of their family plans but primarily use their phones in another part of the country.

¹² T-Mobile Data Practices Comments at 4-5.

B. Because the SBDD Projects Already Collect Coverage and Other Data, the Commission Should Focus on Improving That Data Instead of Mandating Duplicative Collections from Mobile Wireless Carriers.

The National Broadband Map – and the SBDD data that underlie it – provides information, among other things, on mobile broadband coverage and advertised speeds. The Commission should not duplicate these collections through Form 477. Instead, to the extent the Commission believes this first version of the National Broadband Map has flaws or needs to be supplemented, it should work to do so in the context of the process for updating the Map rather than through a separate process. This approach is not only good policy; it is also mandated by law.

The Paperwork Reduction Act prohibits federal agencies from adopting new regulations that seek information from the public that is already available from other federal government sources.¹³ The Act specifically requires that each agency sponsoring an information collection shall “certify. . . that each collection of information . . . is not unnecessarily duplicative of information otherwise reasonably accessible to the agency.”¹⁴ Thus, unless the Commission can demonstrate that SBDD data is not “reasonably accessible,” it must use SBDD data.¹⁵ Like

¹³ *Dole v. United Steelworkers of Am.*, 494 U.S. 26, 32 (1990). See also Comments of Verizon and Verizon Wireless, WC Docket 10-132, 7-8 (filed Aug. 13, 2010) (Form 477 “should not duplicate data that the Commission can obtain from other sources”); Reply Comments of Sprint Nextel Corporation, WC Docket 10-132, 3 (filed Sept. 13, 2010) (“To the extent that detailed information concerning broadband coverage and speed is being collected by NTIA, the Commission should reduce the burdensome speed and geographic data for wireless connections on the Form 477.”); Reply Comments of T-Mobile, Inc., WC Docket 10-132, 4 (filed Sept. 13, 2010).

¹⁴ 44 U.S.C. § 3506(c)(3)(B).

¹⁵ The NTIA Broadband Mapping Program is administered pursuant to the Recovery Act and the BDIA. See also U.S. Dept. of Com., Nat’l Telecomm. and Info. Admin., *State Broadband Data and Development Grant Program; Notice of funds availability (Notice) and solicitation of applications*, 74 Fed. Reg. 32545 (July 8, 2009) (“NTIA Broadband Mapping Program NOFA”).

Form 477, SBDD data is updated twice annually.¹⁶ To the extent that providers are already submitting coverage data to NTIA, the Commission must obtain that data from NTIA in order to comply with the Paperwork Reduction Act.

Mobile wireless providers are already submitting comprehensive wireless coverage shapefiles for the SBDD projects that underlie the Map.¹⁷ Moreover, the SBDD grant recipients must “agree that, to the extent necessary, they will coordinate with and lend reasonable assistance to NTIA and the FCC.”¹⁸ In its Notice of Funds Availability, NTIA stated that if any state is unable to obtain data, the Commission may “exercise its authority to compel data production from any broadband service provider subject to its jurisdiction.”¹⁹

Thus, the data sought by the Commission should not duplicate that represented by the National Broadband Map as the Commission can readily access the data collected through the NTIA Broadband Mapping Program.²⁰ Coverage and speed mapping data is also available on several individual state websites.²¹ The SBDD Map data provides a granular picture of wireless broadband availability and deployment.

¹⁶ *Id.* at 32552.

¹⁷ *Id.* at 32557 (Appendix A).

¹⁸ *Id.* at 32555.

¹⁹ *Id.*

²⁰ *See id.* at 32546 (“the awardees will submit all of their collected data to NTIA for use by NTIA and the Federal Communications Commission (FCC) in developing and maintaining the national broadband map, which will be displayed on an NTIA Web page before February 17, 2011.”)

²¹ *See, e.g.,* California Broadband Initiative, Appendix: Broadband Availability Maps, http://www.cio.ca.gov/broadband/taskforce/appendix_maps.asp; Connect Florida, Interactive Map, http://connect-florida.org/mapping/interactive_map.php; Connect Illinois, Mapping, <http://connectillinois.org/mapping/>; New York State Broadband Map, <http://www.broadbandmap.ny.gov/map/> (all web sites last visited Mar. 29, 2011).

The NPRM nowhere explains why the SBDD data would be inadequate to the Commission’s purposes or why it could not be improved through the Commission working together with NTIA and specific carriers. GAO’s concerns of inconsistencies from state to state²² lack specifics – or any indication that they cannot be resolved. Before mandating new, duplicative or overlapping information collections, the Commission and NTIA should work with the state SBDD grantees to attempt to resolve any inconsistencies and other issues. Furthermore, avoiding duplication of data gathering efforts will also save time and money for the Commission as it will not have to expend resources to collect data that others have already compiled.

Form 477 collection methods and parameters should also be harmonized with NTIA’s so that carriers do not have to submit data to multiple agencies and so that reporting categories and practices are consistent. The Paperwork Reduction Act requires both agencies to harmonize their data collections to reduce the burden on providers as much as possible.²³ As part of that harmonization, the Commission should conform its coverage speed tiers to the NTIA speed tiers to minimize burdens on those providing information.

C. Any Data Collection, Whether by the Commission or NTIA Should Focus on Information That the Carriers Already Maintain for Business Purposes.

The Paperwork Reduction Act requires agencies to “minimize the burden of the collection of information on those who are to respond.”²⁴ Thus, to the extent that it seeks information that is not readily accessible from the SBDD, or seeks to supplement the SBDD data

²² NPRM ¶ 53.

²³ 5 C.F.R. 1320.5(d)(1)(i) (agencies must ensure that data collection practices are “the least burdensome necessary for the proper performance of the agency’s functions to comply with legal requirements and achieve program objectives.”); *see also* 44 U.S.C. 3506(c)(3)(C).

²⁴ 44 U.S.C. § 3506(c)(2)(A)(iv).

collection in collaboration with NTIA, the Commission should only seek additional information that providers already produce and maintain.

T-Mobile, for example, publishes on its website street-level coverage and signal strength maps, including for various data technologies (2G, 3G, or 4G).²⁵ For voice services, these maps show estimated signal strengths that correspond with its mapped voice-service categories of “none, moderate, good, very good, excellent.” For its data services, these maps show data technology coverage as follows: “none, 2G, 3G, 4G available, 4G good, and 4G very good.”²⁶ To create these voice and data street-level coverage maps, T-Mobile maintains shapefiles covering the 48 contiguous states, as well as separate shapefiles for non-contiguous areas, with boundaries reflecting its different signal strength/data technology coverage boundaries. Providing these existing shapefiles along with the signal strength thresholds used to delineate the signal strength categories would give the Commission or NTIA substantial useful information – within the limit of engineering estimates – while minimizing burdens.

²⁵ See, e.g., T-Mobile Coverage Map, <http://coverage.t-mobile.com/>. See also AT&T Inc. Coverage Map, <http://www.wireless.att.com/coverageviewer/#?type=voice>; Sprint Nextel Corporation Coverage Map, <http://coverage.sprint.com/IMPACT.jsp?ECID=vanity:coverage>; Verizon Communications Inc. Coverage Map, <http://www.verizonwireless.com/wireless-coverage-area-map.shtml>; United States Cellular Corporation Coverage Map, <http://www.uscellular.com/uscellular/common/common.jsp?path=/coverage-map/index.html>; Cincinnati Bell Inc. Coverage Map, <http://www.cincinnati-bell.com/consumer/wireless/coverage/>; Fuzion Mobile Coverage Map, <http://www.fuzionmobile.com/why-fuzion/about-fuzion/coverage.html>; General Communications, Inc. Coverage Map, <http://gci.cellmaps.com/viewer.html>; Golden State Cellular Coverage Map, <http://www.goldenstatecellular.com/coverage/>; Syringa Wireless, LLC Coverage Map, http://www.syringawireless.com/plans.php?id=plans_home; TerreStar Corporation Coverage Map, <http://www.terrestar.com/library.php> (select “Download JPG format” link underneath “Coverage Map”) (all web sites last visited Mar. 29, 2011).

²⁶ See T-Mobile Personal Coverage Check, <http://www.t-mobile.com/coverage/pcc.aspx> (select “Data Coverage Map”) (last visited Mar. 29, 2011).

Further, providers should not have to break coverage or signal strength estimates down into specific geographies, such as states, counties, towns, census tracts, or census blocks. Once the Commission has a carrier's shapefiles, it can then use them, along with its own Geographic Information Systems software, to analyze geographic areas of its choosing. Requiring carriers to do this imposes an unnecessary burden on carriers.

Under the Paperwork Reduction Act, an information collection "is to be implemented in ways consistent and compatible, to the maximum extent practicable, with the existing reporting and recordkeeping practices of those who are to respond."²⁷ Thus, wireless carriers should not be required to create new coverage maps or shapefiles at different signal strengths other than those already maintained. As Sprint has said, "creating such deployment information from scratch or producing data in a different format will be extremely costly."²⁸ Sprint further explained that "[m]apping of service availability is highly complex ... requir[ing] enormous amounts of data, modeling and analyses, and ongoing maintenance of these maps is also very expensive."²⁹ T-Mobile agrees with Sprint that costs of revamping coverage data files for a new set of categories could likely exceed the current expense of filing Form 477.³⁰ With respect to signal strength, therefore the Commission should not require carriers to wholly revamp their coverage models for a Commission-prescribed set of signal strength or technology tiers.

D. The Commission Should Not Collect "Actual" Speed Data on Form 477 Because It Is of Little Practical Utility for Mobile Wireless Broadband.

The Commission should not collect "actual" speed data on Form 477 as such a

²⁷ 44 U.S.C. § 3506(c)(3)(E).

²⁸ Comments of Sprint Nextel Corporation, WC Docket No. 07-38, 2 (filed Jul. 17, 2008).

²⁹ *Id.* at 3.

³⁰ *Id.*

requirement is extraordinarily burdensome and will be of little practical utility. The Paperwork Reduction Act directs agencies to consider whether “the information shall have practical utility.”³¹ While speed information would at first blush appear to be useful, measuring “actual” wireless speeds is an undertaking fraught with difficulties that substantially dilute any perceived utility.³² First, different methods of speed measurement produce different results.³³ Second, speed results can change from minute to minute or between locations even a few meters apart based on changing factors from the surrounding environment such as traffic volume, signal strength, directness of the path between the handset and the cell site antenna, handset design, terrain, structures, foliage, weather, and many others.³⁴

The following chart demonstrates some of the problems with measuring and reporting “actual,” rather than “up to,” throughput speeds on a wireless network. Cell site data throughput is directly dependent upon the number of simultaneous users. If even one or two users are streaming large amounts of data, speed for other users nearby can decrease dramatically:

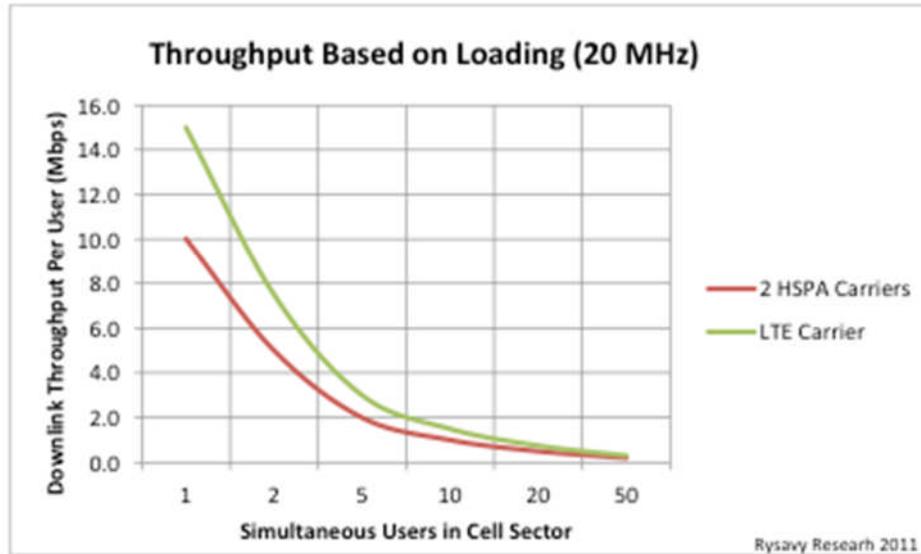
³¹ 44 U.S.C. § 3506(c)(2)(A)(i).

³² The Commission only just began its inquiry of how best to measure wireless broadband speeds in June of 2010 Public Notice. *See Comment Sought on Measurement of Mobile Broadband Network Performance and Coverage*, Public Notice, DA No. 10-988, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36 (rel. June 1, 2010).

³³ *See, e.g.*, Steve Bauer, David Clark, William Lehr, MIT Internet Traffic Analysis Study, *Understanding Broadband Speed Measurements* (June 2010), http://mitas.csail.mit.edu/papers/Bauer_Clark_Lehr_Broadband_Speed_Measurements.pdf (explaining different measurement methodologies and their varying results for the same service).

³⁴ *See* Comments of T-Mobile USA, Inc., WC Docket No. 07-38, 5 (filed Jul 8, 2010) (“T-Mobile Mobile Broadband Measurement Comments”); T-Mobile Data Practices Comments at 5-6.

Figure 2: Available Throughput Per User Based on Network Loading



Source: *The Spectrum Imperative*³⁵

The number of simultaneous users will, of course, vary by time of day, and even then can only be probabilistically estimated.

Other location-by-location or handset-by-handset issues will also affect speed. The strength of the signal, and thus its carrying capacity, can change dramatically with the number of walls through which the signal must pass, as well as the composition of the wall. This can vary depending on which side of a building that user is on, and whether the user is closer to the windows or further in the interior as opposed to on the second floor of a home. Different handsets also have different quality antennas and antenna configurations that can affect throughput. With leaves on trees, throughput can be lower in the summer than in the winter.

All of this suggests that the Commission will realistically get very little usable information should it try to collect geographic information on “actual” rather than advertised “up

³⁵ Rysavy Research, *The Spectrum Imperative: Mobile Broadband Spectrum and Its Impacts for U.S. Consumers and the Economy: An Engineering Analysis*, Mar. 16, 2011 at 13, available at <http://www.mobilefuture.org/page/-/rysavy-spectrum-effects-301611.pdf>.

to” throughput speeds on Form 477. In the words of the Paperwork Reduction Act, this information will lack “practical utility.” In fact, the range of potential factors that can affect speed mean that a carrier’s – or the Commission’s – touting of “actual” speeds is almost sure to be wrong at any given time and place. Accordingly, the Commission should refrain from any such collection.

III. The Commission Should Not Collect Price Data from Providers.

The Commission need not collect detailed price data from providers to fulfill its goals as price data is publicly available on provider websites. This price information is already reasonably accessible to the Commission, and the Commission should not impose on carriers the added burden of separately providing it.³⁶ Such a requirement would be inconsistent with the President’s directive to eliminate paperwork that simply saddles businesses with administrative costs.

Beyond the fact that price information is already available on carriers’ websites, price reporting would be unduly burdensome and impractical. For most providers, prices fluctuate frequently because of promotions, targeted regional plans, and many other factors, and would be nearly impossible to keep current in filings.³⁷ Promotions change frequently and may be narrowly targeted to small groups of consumers. “Winbacks,” which are individualized offers, would be impossible to track. Complicating matters further, many carriers offer bundled plans in which consumers can choose combinations of voice minutes, texting plans, and various levels of broadband usage. Carriers should not be required to create artificial “breakdowns” of these bundled prices: allocating a single price among the components of a bundle fails to reflect the

³⁶ 44 U.S.C. § 3506(c)(3)(B).

³⁷ See Comments of AT&T Inc., WC Docket No. 07-38, 6-14 (filed Aug. 1, 2008).

reality facing the consumer and would be distorted by whatever arbitrary allocation factors the Commission chose to prescribe. The resulting snapshot of pricing data would thus be meaningless to the Commission as fluctuations and arbitrary allocations would not accurately reflect the competitive retail marketplace.

Furthermore, the Commission does not need across-the-board detailed price data from all providers to fulfill its statutory goals. Wireless telephony and broadband are extremely competitive markets in which consumers enjoy ample protection without this additional regulatory burden. Consumers are already very savvy about broadband pricing, and, as with service quality data, several consumer information organizations and innumerable “blogs” and websites provide constantly updated comparisons. Moreover, pricing flexibility and changes benefit consumers, who are able to choose plans and services that best fit their needs. To the extent that the Commission needs specific pricing information for a particular proceeding, it has existing authority to request such data tailored to the Commission’s specific needs.

IV. The Commission Should Not Collect Service Quality Data from Wireless Providers.

The Commission should not collect service quality data for the highly competitive retail market of wireless broadband and telephony. Intense competition, combined with extremely active and vocal consumer organizations like J.D. Powers and Associates,³⁸ which recently awarded T-Mobile with its highest ranking in two customer surveys³⁹ obviates any need for such

³⁸ See J.D. Power: Telecom, <http://www.jdpower.com/telecom> (last visited Mar. 29, 2011).

³⁹ Press Release, T-Mobile, J.D. Power and Associates’ Wireless Retail Sales Satisfaction StudySM (Feb. 17, 2011), <http://newsroom.t-mobile.com/articles/T-Mobile-JDPower-Retail-Customer-Satisfaction>; Press Release, T-Mobile, J.D. Power and Associates’ 2011 Wireless Customer Care Performance StudySM — Volume 1 (Feb. 3, 2011), <http://newsroom.t-mobile.com/articles/T-Mobile-Highest-Customer-Service>.

data collection. Innumerable other organizations, including Consumer Reports,⁴⁰ PC World,⁴¹ Gizmodo,⁴² and thousands of formal and informal reviews on blogs and consumer discussion boards⁴³ not only provide consumers with truly comprehensive information about service quality and customer satisfaction, but also continually police wireless broadband and telephony offerings. Consumers routinely switch providers in response to service quality issues and have ample information available to inform their decisions. Additionally, carriers already submit outage information to the Commission in response to the outage reporting rules, so there is no reason to duplicate collection of outage information in the Form 477.

V. The Commission Should Only Seek Aggregated Subscription Data

The Commission should only seek subscription data that is aggregated at the highest levels for wireless broadband and telephony services. As discussed above, coverage, rather than subscriber address, is the most relevant data for assessing mobile broadband deployment and localized mobile service choices available to consumers.⁴⁴ Subscription data at best provides a gross indication of the extent to which consumers choose one carrier over another. Given the

⁴⁰ See generally Consumer Reports: Cell Phones and Services, <http://www.consumerreports.org/cro/electronics-computers/phones-mobile-devices/cell-phones-services/index.htm> (last visited Mar. 29, 2011).

⁴¹ See e.g., Mark Sullivan, PCWorld Communications, Inc., 4G Wireless Speed Tests: Which Is Really the Fastest? (Mar. 13, 2011), http://www.pcworld.com/article/221931/4g_wireless_speed_tests_which_is_really_the_fastest.html (highlighting T-Mobile's smartphones as the fastest among the nation's four largest carriers: AT&T Inc., Sprint Nextel Corporation, T-Mobile USA, Inc., and Verizon Communications, Inc.).

⁴² Gizmodo, <http://gizmodo.com/> (last visited Mar. 29, 2011).

⁴³ At the time of filing, a search on google.com for "wireless broadband service review" returns about 7,650,000 results.

⁴⁴ See Section II.A, *supra*.

nationwide wireless footprints of the largest carriers, the Commission should therefore collect only nationwide subscription data for wireless voice and broadband services.

Collecting granular subscription data would also unduly burden providers. Wireless providers, including national providers like T-Mobile, as well as regional providers, do not maintain subscription data at the census tract level.⁴⁵ Compiling subscriber data in the format the Commission demands – even for the current state level reporting – imposes substantial costs. Census tract reporting would be even more costly: in 2009, the Western Telecommunications Alliance, representing approximately 250 small carriers, detailed the burden that detailed census-tract data would have on wireline providers:

[s]mall telecommunications carriers will not only have to determine the numbers of their broadband connections for each technology for 72 different upload-download speed combinations [for the prior Form 477] (as well as the percentage of connections in each combination that constitute “residential” customers), but will have to compile this information on the basis of Census Tract areas for which most have not previously kept data. The new FCC Form 477 therefore imposes very substantial, complex and time-consuming new recordkeeping and reporting requirements on small telecommunications carriers.⁴⁶

Requiring census tract or state-level reporting would also raise difficulties in counting pre-paid subscribers. Because of the nature of pre-paid wireless services, carriers simply do not have an effective way to track subscription data for pre-paid subscribers.

Carriers also should not be required to disaggregate subscription reporting by device or technology. Requiring reporting by device would be extremely burdensome, if not impossible, for providers, and is not “consistent and compatible, to the maximum extent practicable, with the

⁴⁵ See T-Mobile Data Practices Comments at 4; Comments of Western Telecommunications Alliance, WC Docket No. 07-38, 2 (filed Feb. 6, 2009).

⁴⁶ Comments of Western Telecommunications Alliance, WC Docket No. 07-38, 2 (filed Feb. 6, 2009).

existing reporting and recordkeeping practices of those who are to respond.”⁴⁷ Providers cannot accurately track device or technology information. Consumers using devices with SIM cards can switch from one device to another without notifying their provider. Consumers that travel around even a small geographic area, moving among cell towers, can easily switch among 2G, 3G, or 4G technology even on a single phone call. Even the current reporting requirements for 3G enabled devices, including how many devices are capable of achieving certain data speeds, are extremely difficult to fulfill because of the difficulty in estimating and collecting the data, and are of questionable value.

Neither should the Commission require subscription reporting by speed tier, as T-Mobile explained in its Data Practices Comments.⁴⁸ Again, such a collection would not be “consistent and compatible, to the maximum extent practicable, with the existing reporting and recordkeeping practices of those who are to respond.”⁴⁹ T-Mobile and other wireless providers, unlike wireline providers, do not sell data plans by speed tier, but rather by total bandwidth usage. Importantly, as explained above, the variability of speed obtained at any one time means that “a single subscriber can fall within different speed tiers at different locations at different times, making any speed tier categorization of that subscriber inherently arbitrary.”⁵⁰ Furthermore, as discussed above, many factors affect data speeds, so use of the data is quite limited.⁵¹

⁴⁷ 44 U.S.C. § 3506(c)(3)(E).

⁴⁸ T-Mobile Data Practices Comments at 5-6.

⁴⁹ 44 U.S.C. § 3506(c)(3)(E).

⁵⁰ T-Mobile Data Practices Comments at 5.

⁵¹ *Id.*; see also *infra* at II.A.

VI. Under the Paperwork Reduction Act, the Commission Cannot Collect Spectrum Data on Form 477 That Is Available in the Spectrum Dashboard.

The Commission should not use Form 477 to collect spectrum use data. The Commission, in conjunction with NTIA, has already conducted a spectrum inventory, the results of which are publicly available on the Commission's Spectrum Dashboard.⁵² The Paperwork Reduction Act requires that an agency certify that a proposed collection "is not unnecessarily duplicative of information otherwise reasonably accessible to the agency."⁵³ The Commission could not do so with respect to spectrum data. Moreover, it would be particularly difficult for carriers to provide information on subscribers or usage by spectrum band, as carriers frequently use multiple bands to provide service.

⁵² Spectrum Dashboard, <http://reboot.fcc.gov/reform/systems/spectrum-dashboard> (last visited Mar. 29, 2011).

⁵³ 44 U.S.C. § 3506(c)(3)(B).

CONCLUSION

T-Mobile understands the Commission's need for accurate data on mobile broadband and is willing to assist the Commission with its efforts to assess the deployment and availability of wireless services. Accordingly, T-Mobile already provides substantial information for consumers on its public website, including coverage, estimated signal strengths and estimated data technology, as well as national prices. T-Mobile has also voluntarily participated in the SBDD projects that have yielded NTIA's and the Commission's landmark National Broadband Map. As the Commission considers revisions to Form 477, it should build on that success, and, consistent with the requirements of the Paperwork Reduction Act, tailor its routine information requests to its actual needs.

Respectfully submitted,

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