



**Mary L. Henze**  
Assistant Vice President  
Federal Regulatory

AT&T Services Inc.  
1120 20<sup>th</sup> Street, NW  
Suite 1000  
Washington, DC, 20036

Phone: 202.457.2041  
E-Mail: mary.henze@att.com

July 8, 2020

Ms. Marlene Dortch  
Secretary, FCC  
445 12<sup>th</sup> Street, NW  
Washington, DC

***Re: Establishing the Digital Opportunity Data Collection, WC Docket No. 19-195; Modernizing the FCC Form 477 Data Program, WC Docket No. 11-10***

Dear Ms. Dortch,

On July 8, 2020 the undersigned spoke with Garnet Hanly of the Wireless Telecommunications Bureau regarding the wireless infrastructure information the Commission proposes to collect to verify broadband network coverage maps. The Draft Order lists 15 items for reporting but does not explain how the information will be used to validate propagation maps or why each data element is considered necessary to have on an annual basis.<sup>1</sup> AT&T recognizes that the new DATA Act requires the FCC to develop a process to verify provider submissions and understands why some infrastructure information could be useful for that purpose. The question is how much data does the FCC need to collect and have on hand to perform this function.

AT&T suggests that the act of verification falls into two categories: 1) a general review for reasonableness performed upon submission; and 2) an in-depth review in response to a challenge or a pattern of concerns noted via crowd-sourcing. We believe that the data needed to support these two tasks are quite different and that the Commission should bifurcate its information collection accordingly. Given that this will be the first time that the FCC is collecting information to verify propagation maps, and the first time that it will have access to the detailed parameters behind all maps,<sup>2</sup> it seems prudent to begin annual infrastructure reporting with a modest set of data points. If experience with the new process suggests additional data is needed, the Commission could, after appropriate notice and comment, expand the list.

AT&T agrees that the list of information proposed by CTIA for annual reporting is sufficient to ascertain the reasonable accuracy of submitted propagation maps. The five items that would be reported annually by all carriers would be: (1) the geographic location, including latitude and longitude, of cell sites; (2) the site ID number for each cell site; (3) the ground elevation above mean sea level of each site; (4) the frequency bands used to provide service and channel bandwidth; and (5) the radio

---

<sup>1</sup> *In re Establishing Digital Opportunity Data Collection*, Second Report and Order and Third Further Notice of Proposed Rulemaking, WC Docket Nos. 19-195, 11-10, FCCCIRC 2007-07 (draft rel. June 25, 2020) (“*Draft Order*”), paragraph 49.

<sup>2</sup> *Draft Order*, paragraph 45.



**Mary L. Henze**  
Assistant Vice President  
Federal Regulatory

AT&T Services Inc.  
1120 20<sup>th</sup> Street, NW  
Suite 1000  
Washington, DC, 20036

Phone: 202.457.2041  
E-Mail: mary.henze@att.com

technologies used on each band.<sup>3</sup> This cell site information is the foundation of the wireless network; good propagation maps should closely mirror the placement of this infrastructure while discrepancies will be readily apparent.

Many of the other items in the FCC's proposed list, however, are either of questionable value or are more granular in nature and more suitable to analyzing specific coverage issues in small geographies than for validating a propagation map. The *Draft Order* points to the Rural Broadband Auctions Task Force staff report on its investigation of certain provider maps as support for requesting this extensive list of detailed information. AT&T maps were not under review but based on the staff report the investigation appeared to involve an in-depth review of the mapping in certain areas. The *Draft Order* notes that the process only "revealed that the detailed information on the characteristics of cell sites *could* be useful" [emphasis added].<sup>4</sup> AT&T suggests that information that "could be useful" is not information that needs to be collected annually from every wireless provider. Instead it may be information that can be requested as needed when a clear use for it is identified.

In addition, the Commission should consider that by definition, even the most accurate propagation map is a snapshot of network coverage at a single point in time. The network below the cell site level is complex and dynamic with optimization protocols that fine tune and adjust parameters in response to network needs and external factors in order to continually improve service. Thus reporting detailed sub-cell site data on an annual basis would generate a vast quantity of data but it would not necessarily capture the information necessary to analyze and solve a coverage issue brought to the FCC's attention months from the report date. AT&T therefore proposes that information beyond the five items specified above only be requested on a case-by-case basis in order to address issues that arise due to challenges or other inquiries in discrete areas.

In support of this proposal we provide a number of examples. Proposed Item 9 requests "the elevation above ground level for each base station antenna (in meters) and other transmit antenna specifications" which are enumerated as "the make and model, beam width (in degrees), and orientation (azimuth and any electrical and/or mechanical down-tilt in degrees)" for every antenna on every cell site.<sup>5</sup> The DATA Act requires the FCC to "verify submissions" but if the FCC plans to verify propagation maps by correlating the RF configurations of hundreds of thousands of sectors it will need more staff and more time because it would be a daunting undertaking. Information on the height and angle of the antennae on a specific cell site, however, could be relevant to understanding why a nearby road shown as covered by a carrier's map, may have failed drive testing. By requesting the information when the problem arises, the FCC is more likely to get the information it needs to determine what if any action needs to be taken.

The information requested in items 8, 9, and 10 would be problematic for an annual data collection particularly because of its dynamic variability. AT&T uses both Self Optimizing Networks (SON)

---

<sup>3</sup> Letter from Matthew Gerst, Vice President, Regulatory Affairs, CTIA, to Marlene Dortch, Secretary, FCC, WC Docket 19-195 (July 6, 2020).

<sup>4</sup> *Draft Order*, footnote 132.

<sup>5</sup> *Draft Order*, paragraph 49 and footnote 128.



**Mary L. Henze**  
Assistant Vice President  
Federal Regulatory

AT&T Services Inc.  
1120 20<sup>th</sup> Street, NW  
Suite 1000  
Washington, DC, 20036

Phone: 202.457.2041  
E-Mail: mary.henze@att.com

and Best Practices that constantly change the transmitter RF properties (radio power, electrical tilts and azimuth variances) to improve network performance and capacity. Thus if required to provide the “Effective Isotropic Radiated Power (EIRP, in dBm) of the transmitter” or the “operating radiated transmit power of the radio equipment at each cell site” on an annual basis the only practical option would be to report the power limits established by the FCC which we never exceed. This data would not be useful for validation, however, because our coverage maps will use the design-optimized settings that are valid for the network at the time the propagation maps are being generated. Since SON has the potential to change daily and even several times a day, an issue that warranted a case-by-case collection of this information would require coordination between the FCC and the carrier in order to ensure steps are put in place to track and record the system configuration and/or changes over an agreed upon collection period.

Finally, the utility of the “per site classification (e.g., urban, suburban, or rural)” information (Item 7) is unclear since the latitude and longitude of each site will be known. And throughput, signal strength, signal to noise ratio, cell loading, and carrier aggregation (Items 12, 13, and 15) which are parameters associated with propagation maps are unnecessary for an infrastructure report.

AT&T strongly supports the Commission’s effort to improve the quality of broadband availability reporting and mapping and looks forward to continuing to work constructively towards that goal.

Sincerely,

*/s/ Mary L. Henze*

Mary L. Henze

cc: Preston Wise  
Garnet Hanly