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December 19, 2014

VIA ECFS

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, D.C. 20554

Re: *Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90
REDACTED - FOR PUBLIC INSPECTION

Dear Ms. Dortch:

Pursuant to the *Second Amended Modified Joint Protective Order* in the above-referenced proceeding¹ and the instructions set forth in the Commission's Information and Discovery Requests dated September 9, 2014 and the Commission's Supplemental Information and Discovery Requests dated December 15, 2014 ("Supplemental Request"), AT&T Inc. ("AT&T") is filing herewith, via ECFS, the *redacted* public version of its response to the Supplemental Request (the "Response").

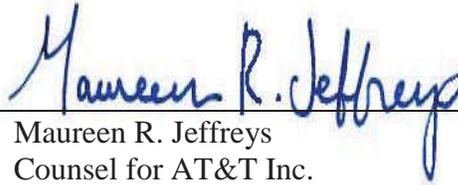
An unredacted Highly Confidential copy of the Response is being hand delivered to your office and additional copies of the unredacted Response are being delivered to Vanessa Lemmé of the Media Bureau.

¹ *Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Dkt No. 14-90, Second Amended Modified Joint Protective Order, DA 14-1640 (MB rel. Nov. 12, 2014).

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Please contact me at (202) 942-6608 or Maureen.Jeffreys@aporter.com if you have any questions. Thank you for your assistance.

Respectfully submitted,


Maureen R. Jeffreys
Counsel for AT&T Inc.

Enclosures

cc (via email): Daniel Ball
William Beckwith
Jim Bird
Brendan Holland
Vanessa Lemmé
Christopher Sova
Best Copy and Printing, Inc.

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

In the Matter of)
)
Applications of AT&T Inc. and DIRECTV) MB Docket No. 14-90
for Consent To Assign or Transfer Control of)
Licenses and Authorizations)

SUPPLEMENTAL RESPONSE OF AT&T INC. TO
INFORMATION AND DISCOVERY REQUESTS DATED SEPTEMBER 9, 2014 AND
DECEMBER 15, 2014

December 19, 2014

**SUPPLEMENTAL RESPONSE OF AT&T INC. TO
INFORMATION AND DISCOVERY REQUESTS DATED SEPTEMBER 9, 2014 AND
DECEMBER 15, 2104**

December 19, 2014

1. SUPPLEMENTAL REQUEST:

Verify that AT&T's (the "Company's") population and density calculations for each of the one-square mile areas submitted to the Commission on October 7 (the "October 7 Response") in response to Information Request 58.b.iii are accurate. In certain instances, the Company's population and density results do not correlate appropriately when the geographic unit of the grid is fixed at one-square mile. If any of the submitted population or density results is inaccurate, correct and submit accurate data and explain, in detail, any assumptions or calculations used in creating that data.

RESPONSE:

AT&T has verified the accuracy of the population and density data for the one-square mile areas submitted to the Commission on October 20 in response to Information Request 58.b.iii.¹ **[BEGIN AT&T CONFIDENTIAL INFORMATION]**

¹ On October 7, 2014, AT&T submitted its response ("October 7 Response") to the letter dated September 9, 2014, from William T. Lake, Chief of the Media Bureau of the Federal Communications Commission ("Commission"), and the Information and Discovery Request for AT&T attached thereto ("Information Request" or "Request"). At the request of Commission Staff, AT&T supplemented its October 7 Response related to Request 58.b.iii by providing a DVD-ROM containing MapInfo data files of a grid of one mile squares. This supplemental request was submitted on October 20, 2014 ("October 20 Response").

² **[BEGIN AT&T CONFIDENTIAL INFORMATION]**

[END AT&T CONFIDENTIAL INFORMATION]

[END

AT&T CONFIDENTIAL INFORMATION]

[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

In addition, for the convenience of Commission Staff, AT&T is producing MapInfo files that contain the square mile grid with population and density data previously provided in response to Information Request 58.b.iii.

2. SUPPLEMENTAL REQUEST:

The data supplied in Exhibits 58.b.1 and Exhibit 81.j of the October 7 Response identify FWLL coverage in areas where no cell site is identified and cell sites where no FWLL coverage is identified. If the reported data is inaccurate, provide accurate data. If the data is accurate, describe the method of providing FWLL coverage without a cell site.

RESPONSE:

AT&T's October 7 Response to Information Request 58 included ESRI shape files showing fixed WLL coverage estimates **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]** **[END AT&T HIGHLY CONFIDENTIAL INFORMATION]** pulled from AT&T's ordinary course Atoll tools.⁵ The shape files accurately reflect **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

³ Because population is reported at the census block level and census block boundaries are not established on a square mile grid system, *i.e.*, a square mile may contain portions of two or more census blocks, **[BEGIN AT&T CONFIDENTIAL INFORMATION]**

[END AT&T CONFIDENTIAL INFORMATION]

⁴ Supplemental Exhibit 81.j also corrects a typographical error in the heading to Column G to make clear that the heights are in feet.

⁵ A description of the methodology used to develop these coverage estimates is provided in AT&T's October 7 Response to Information Request 58.

[END AT&T HIGHLY CONFIDENTIAL
INFORMATION]

Updated spatial files that reflect [BEGIN AT&T HIGHLY CONFIDENTIAL
INFORMATION] [END AT&T HIGHLY
CONFIDENTIAL INFORMATION] are included here as “Supplemental Exhibit 58.b.1 –
Mapinfo and ESRI Files Highly Confidential.” For Commission Staff’s convenience, this
Exhibit includes both MapInfo and ESRI files. Even with this updated data, [BEGIN AT&T
HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY
CONFIDENTIAL INFORMATION]

Although these supplemental exhibits use the same Atoll tools and assumptions as the original exhibits, the coverage area for any particular cell site shown in the supplemental exhibits may be larger or smaller than in the original exhibit. This is due to the fact that AT&T in the ordinary course of business updates its Atoll propagation tools to reflect ongoing network re-configuration and optimization, *e.g.*, changes in antenna tilts, and new information from network testing, *e.g.*, drive tests.

3. SUPPLEMENTAL REQUEST:

Explain in detail the Company’s plans to share existing mobile spectrum (PCS/AWS/Cellular/Lower 700 MHz) with any spectrum proposed for the FWLL deployment, and identify the possible spectrum bands for the FWLL devices that the Company intends to use for the proposed FWLL deployment.

RESPONSE:

AT&T’s fixed WLL service will not share spectrum with AT&T mobile wireless services. Rather, AT&T’s fixed WLL service will use *dedicated* spectrum.⁶ AT&T currently

⁶ See Declaration of John T. Stankey, Group President and Chief Strategy Officer AT&T Inc. ¶ 48 (June 10, 2014) (“[AT&T’s] fixed WLL deployment is expected to utilize 20 MHz (10+10 MHz paired ‘uplink’ and ‘downlink’) of spectrum dedicated to the fixed WLL service.”).

intends to use [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]
[END AT&T HIGHLY CONFIDENTIAL INFORMATION] spectrum bands for its
fixed WLL service.⁷ Accordingly, the network equipment and customer premises equipment
associated with the service are expected to support [BEGIN AT&T HIGHLY
CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL
INFORMATION]

4. SUPPLEMENTAL REQUEST

**For “FWLL_UMTS_BEST_SERVER_20140610” in Exhibit 58.b of the October 7
Response,**

- a. Explain in detail how the Company calculated and concluded that 12,000 cell locations is sufficient to provide 10 Mbps at the cell edge more than 90 percent of the time;**
- b. Provide the average data rate (Mbps) that the Company expects to achieve for all of the depicted FWLL coverage geographical areas. In addition, provide (i) all assumptions and calculations that the Company relied on to calculate the average data rate; and (ii) all data generated by lab results or field tests since FWLL_UMTS_BEST_SERVER_20140610 was created that might affect the Company’s expectations or conclusions about the average data rate, with a detailed explanation of how the lab results affect the Company’s expectations or conclusions about the average data rate. This is an ongoing request that the Company should update as lab results or field tests are generated.**
- c. Provide the data rate that the Company relied on to define the edges of the depicted coverage. In addition, supply (i) all assumptions and calculations that the Company relied on to calculate that cell-edge data rate; and (ii) all data generated by lab results or field tests that might affect the Company’s expectations or conclusions about the cell-edge data rate, with a detailed explanation of how those data might affect the Company’s expectations or conclusions about the cell-edge data rate. This is an ongoing request that the Company should update as lab results or field tests are generated.**

⁷ See October 7 Response at 193.

RESPONSE:

Based on discussions with Commission Staff, AT&T is responding to this request by providing recently completed field trial and lab simulation results that further support AT&T's prior estimates that its fixed WLL service will support 10 Mbps at the cell edge more than 90% of the time. As explained in AT&T's October 7 Response, field trials were underway at that time to evaluate fixed WLL speeds **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] These field tests are now complete, and the results are summarized in Exhibits 4.1-4.4. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

In addition to these field tests, AT&T has conducted further lab modeling showing that AT&T's proposed fixed WLL service will support speeds of 10 Mbps more than 90% percent of the time. These updated lab tests are described in responses to Requests 5 and 6, below.

5. SUPPLEMENTAL REQUEST:

Complete Information Request 58.1 in the October 7 Response by providing a definition of "cell edge" that includes the signal strength, signal to noise ratio, and link budget.

RESPONSE:

[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

⁸ See, e.g., October 7 Response at 194, 199, 201.

**[END AT&T HIGHLY CONFIDENTIAL
INFORMATION]**

6. SUPPLEMENTAL REQUEST:

Complete the tables included in Attachment A by providing:

- a. In addition to the 6-Mbps speed tier results reported at Exhibit 58.i.1 at 3 in the October 7 Response, all performance- and capacity-simulation for the FWLL.**

⁹ See Exhibit 5.1.

¹⁰ See Exhibits 4.1-4.4.

¹¹ See Exhibit 5.2.

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- b. In addition to the 3-sectors case results reported at Exhibit 58.i.1 at 13 in the October 7 Response, all performance and capacity simulation results, and any related documents for the FWLL.**
- c. In addition to the 3.6 Km site radius results reported at Exhibit 58.g.2 at 3 and 58.i.1 at 5 and 11 (i.e., coverage radii from 4 Km to 10 Km), any performance and capacity simulation results available to the Company, and any related documents for the FWLL.**

Attachment A should be updated as new lab results or field tests are generated.

RESPONSE:

Based upon discussions with Commission Staff, AT&T is responding to this request by providing updated lab test results. **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T

HIGHLY CONFIDENTIAL INFORMATION]

7. SUPPLEMENTAL REQUEST:

Describe, and provide all documents relating to, pricing of the FWLL service. If such documents are included in the October 7 Response, identify those documents by Bates number.

RESPONSE:

[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL INFORMATION] Based upon discussions with Commission Staff, AT&T is responding to this

request by providing the Bates numbers of documents¹² [BEGIN AT&T HIGHLY
CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY

CONFIDENTIAL INFORMATION]

8. SUPPLEMENTAL REQUEST:

State when the Company expects to complete the field trials described in 58.f and 58.g of the October 7 Response and describe any preliminary results of those field trials.

RESPONSE:

As discussed with Commission Staff, AT&T is responding to this request by providing the field test results discussed above in response to Request 4.

9. SUPPLEMENTAL REQUEST:

With respect to the Company's responses to Information Request 59.I in the October 7 Response, explain in detail (a) how the Company calculated the Lifetime Value ("LTV") for FWLL customers subscribing to in-house DIRECTV video post-transaction; (b) how the monthly churn rate implied by this LTV is consistent, if at all, with the Company smallest predicted value for monthly churn (which is the pre-merger prediction for the Company's DSL service in rural markets); and (c) what the monthly churn rate would be for FWLL customers subscribing to a synthetic DIRECTV video bundle absent the Transaction, how that monthly churn rate compares to the expected monthly churn rate of FWLL customers subscribing to DIRECTV video post-Transaction, and provide all documents, data and calculations related to the pre- and post-Transaction churn rates.

RESPONSE:

[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

¹² See ATT-FCC-02117825, ATT-FCC-03407248, ATT-FCC-00374985, ATT-FCC-00378778, ATT-FCC-00377899, ATT-FCC-02122900, ATT-FCC-02122971, ATT-FCC-02123822, ATT-FCC-02123500, ATT-FCC-02123985, ATT-FCC-02123422, ATT-FCC-02123128, ATT-FCC-00378364.

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¹³ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

¹⁴ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY
CONFIDENTIAL INFORMATION]

¹⁵ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION] [END AT&T HIGHLY
CONFIDENTIAL INFORMATION]

¹⁶ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

[END AT&T HIGHLY CONFIDENTIAL
INFORMATION]

¹⁷ [BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]

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[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

¹⁸ **[BEGIN AT&T HIGHLY CONFIDENTIAL INFORMATION]**

[END AT&T HIGHLY CONFIDENTIAL INFORMATION]

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**Exhibits Redacted in their Entirety as
Highly Confidential Information**