

July 26, 2011

REDACTED FOR PUBLIC INSPECTION

VIA ECFS

Marlene H. Dortch, Esq.
Secretary
Office of the Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *Applications of AT&T Inc. & Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses & Authorizations*, WT Docket No. 11-65

Dear Ms. Dortch:

In previous material submitted to the Federal Communications Commission, AT&T and Deutsche Telekom described the significant network efficiencies that will be achieved as a result of the AT&T/T-Mobile USA transaction.¹ This submission provides additional information and technical analysis that confirms our initial assessment.

Two expert wireless network engineers, Professor Jeffrey Reed of Virginia Tech and Dr. Nishith Tripathi of Award Solutions, report on further engineering analyses that provide more precise information on the merger-specific network capacity gains associated with increased cell density, channel pooling, the elimination of redundant control channels, better network utilization, and the enhanced ability to shift spectrum from less to more spectrally efficient

¹ See, e.g., *In re Applications of AT&T Inc. & Deutsche Telekom AG, for Consent to Assign or Transfer Control of Licenses & Authorizations*, WT Dkt No. 11-65, Public Interest Showing (Apr. 21, 2011); *id.*, Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services, Inc. (Apr. 20, 2011); *id.*, Declaration of Dr. Kim Kylesbech Larsen, Senior Vice President, Deutsche Telekom AG (Apr. 19, 2011); *id.*, Reply Declaration of William Hogg, Senior Vice President of Network Planning and Engineering, AT&T Services, Inc. (June 9, 2011); *id.*, Reply Declaration of Dr. Kim Kylesbech Larsen, Senior Vice President, Deutsche Telekom AG (June 9, 2011).

network technologies. *See* Exhibit A (“Reed and Tripathi Paper”). The Reed and Tripathi Paper confirms that the network efficiencies resulting from the transaction will meet or exceed previous estimates and demonstrates how each of these network efficiencies will directly relieve capacity constraints on AT&T’s Universal Mobile Telecommunications System (“UMTS”) network.

The Reed and Tripathi Paper’s cell density discussion is supported and expanded upon by the enclosed Site Integration Analysis for San Francisco and Los Angeles. *See* Exhibit B (“Site Integration Analysis”). The Site Integration Analysis presents a summary of the methodology and results of the detailed site-by-site network integration analyses that AT&T has completed for portions of San Francisco and Los Angeles. The Site Integration Analysis confirms that the AT&T and T-Mobile USA cell grids are highly complementary (indeed, more so than AT&T’s initial engineering estimates indicated) and that the thousands of T-Mobile USA cell sites that can be productively assimilated into the existing AT&T cell grid will directly address UMTS capacity, performance, and coverage issues. The Site Integration Analysis also provides further explanation and documentation as to why AT&T can integrate the cell sites into the combined network far faster than AT&T could deploy new cell sites on its own.

Collectively, the Reed and Tripathi Paper and Site Integration Analysis provide strong support, with demonstrable examples based on real-world data and engineering, for the spectrum capacity gains that will be achieved once the transaction is consummated. In downtown San Francisco, for example, AT&T’s Global System for Mobile (“GSM”) network today uses **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** MHz of spectrum, and T-Mobile USA’s uses **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** MHz, for a total of **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** MHz. Due to the increase in spectrum capacity resulting from the efficiencies described in the Reed and Tripathi Paper, the combined network can serve the same total GSM customer base with **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** MHz, freeing up **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** MHz. These substantial efficiencies will flow directly to the benefit of the combined company’s UMTS subscribers, as the freed up spectrum can be repurposed for more efficient UMTS service.

This letter also identifies several core points discussed in these materials and elsewhere establishing the complementary nature of AT&T’s and T-Mobile USA’s network and the significant efficiencies that result from this transaction.

I. Network Efficiencies

- GSM network efficiency (elimination of the redundant control channel, channel pooling, and network utilization/load balancing) will *free up spectrum that can be repurposed to alleviate UMTS capacity constraints*.
- In addition, the increased density of the combined cell site grid will add significant capacity to *the UMTS network*.

- AT&T will be able to use T-Mobile USA's Advanced Wireless Service ("AWS") spectrum for LTE deployment in many markets without the need to migrate a single T-Mobile USA customer.
 - T-Mobile USA has AWS spectrum, but will not have deployed UMTS as of the end of 2011, in **[Begin Confidential Information]** **[End Confidential Information]** CMAs, covering **[Begin Confidential Information]** **[End Confidential Information]** people.
 - In **[Begin Highly Confidential Information]**
[End Highly Confidential Information] throughout the CMA. More specifically:
 - In **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** CMAs, covering **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** people, T-Mobile USA has **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** throughout those CMAs.
 - CMAs include **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** and others.
 - In **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** CMAs, covering **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** people, T-Mobile USA has **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** throughout those CMAs.
 - CMAs include **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** and others.
 - Today, **[Begin Confidential Information]**

[End Confidential Information].

- By the second quarter of 2012, **[Begin Confidential Information]**

[End

Confidential Information].

II. Site Integration Analysis

A. San Francisco and Los Angeles Site Integration Analysis

To confirm AT&T's initial estimate that it would integrate more than **[Begin Confidential Information]** **[End Confidential Information]** of T-Mobile USA's cell sites (more than **[Begin Confidential Information]** **[End Confidential Information]**), AT&T recently undertook a site-specific integration analysis in San Francisco and Los Angeles using the same types of engineering analyses AT&T applies during actual network integration. A description of AT&T's methodology is attached as Exhibit C.

The results of this analysis *strongly confirm* AT&T's initial estimates. Specifically, AT&T projects that:

- In downtown San Francisco, AT&T will be able to integrate **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** of T-Mobile USA cell sites.
 - **[Begin Highly Confidential Information]**
[End Highly Confidential Information]
 - **[Begin Highly Confidential Information]**
[End Highly Confidential Information]
- In downtown Los Angeles and adjacent areas, AT&T identified **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** of T-Mobile USA's cell sites that could be productively integrated.
 - **[Begin Highly Confidential Information]** **[End Highly Confidential Information]**
 - **[Begin Highly Confidential Information]** **[End Highly Confidential Information]**

[End Highly Confidential Information]

B. Cell Site Integration Timeline

AT&T will begin work immediately after closing to integrate the existing T-Mobile USA cell sites, and anticipates that the benefits of an integrated cell grid will be available starting as early as nine months after closing in areas facing the greatest capacity constraints (including **[Begin Confidential Information]** **[End Confidential Information]**), with network integration planned to be completed within 24 months after closing throughout the country -- much more rapidly than AT&T could deploy a comparable number of new cell sites on its own. An examination of AT&T's San Francisco site acquisition process and preliminary T-Mobile USA network integration analysis soundly supports this point.

AT&T highlights eight San Francisco areas where AT&T currently has identified the need for a cell site, but has faced substantial delays in identifying suitable land or a rooftop, or obtaining zoning approval, for the construction of *a new site* (including collocations on third-party structures). In each of these areas, AT&T has identified **[Begin Highly Confidential Information]** **[End Highly Confidential Information]** complementary, existing T-Mobile USA sites that could be quickly integrated into the combined network.

* * * * *

These materials provide further evidence of the significant network efficiencies that can be achieved immediately upon network integration, efficiencies that will address UMTS capacity constraints and that could not be achieved absent the transaction.

Pursuant to the Protective Order and Second Protective Order in this proceeding,² we are submitting an unredacted version of this package of materials to you by CD-ROM. In addition, we are submitting a redacted version this package of materials in ECFS. Finally, pursuant to the directions of the Staff, we are submitting two copies of the unredacted package of materials to Kathy Harris of the Wireless Telecommunications Bureau staff or her designee.

² *In re Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Dkt No. 11-65, Protective Order, DA 11-674 (WTB rel. Apr. 14, 2011) (“First Protective Order”); *In re Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Dkt No. 11-65, Second Protective Order (Revised), DA 11-1100 (WTB rel. June 22, 2011), *modified*, DA 11-1214 (WTB rel. July 19, 2011) (“Second Protective Order”).

Marlene H. Dortch, Esq.
July 26, 2011
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Respectfully Submitted,

Richard L. Rosen 

Richard L. Rosen
Counsel for AT&T Inc.

Enclosures

cc (via email): Best Copy and Printing, Inc. (Redacted Version)
Kathy Harris, Esq. (Unredacted and Redacted Versions)
Kate Mataves (Redacted Version)
Jim Bird, Esq. (Redacted Version)