



Federal Communications Commission
Washington, D.C. 20554

August 31, 2011

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

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

Dear Ms. Dortch:

For inclusion in the record in this proceeding, set forth below is a list of questions that Commission staff asked the Applicants on August 11, 2011, about their engineering and economic models.

- (1) Where do the [REDACTED] (stand-alone) and [REDACTED] (merged firm) LTE deployment numbers come from? What is their basis?
- (2) What is the basis for assuming [REDACTED] of traffic as WiFi offload?
- (3) Please provide us with the basis for the model's assumptions concerning MB of usage in each market by technology and year, and the annual number of subscribers assumed for each market and technology. As part of the answer to this question, please indicate how the assumptions in the model track or deviate from the assumptions that underlie AT&T's business plans, explain the relationship between the growth in subscribers that the model that assumes and the growth in data demand that it assumes, and describe the pricing assumptions implicitly or explicitly underlying the MB usage and subscriber level estimates.
- (4) Please provide data on AT&T's actual capital expenditures for each of the past five years separately by city (for those cities modeled), for all expenditures related to expanding wireless capacity in aggregate and broken down into major categories similar to the types of investments that the engineering model presumes would be employed to

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lower marginal cost such as expenditures for towers added to expand coverage, for towers added to expand capacity (cell splits), for oDAS, for iDAS, and for backhaul

upgrades. Please provide the corresponding forecast assumed in or derived from the model for capex in the aggregate and in the major categories by city for each year that the model runs.

(5) Please provide data on the number of sectors split (towers added to expand capacity), number of oDAS systems added, and number of iDAS systems added in each of the past five years separately by city (for those cities modeled), and the corresponding forecast assumed or derived from the model by city for each year that the model runs.

(6) Please explain how the models that you have provided differ from the models that AT&T actually uses for planning purposes.

(7) What is the basis for using a blocking rate (quality of service metric at which more towers are added) of [REDACTED] in the model, [REDACTED]? Please provide us with all documents and analyses that explain, justify, or evaluate this decision.

(8) Please explain the methodology the model employs for converting a percentage quality change (e.g. churn reduction percentage) into a percentage price change, and explain the methodology the model employs for converting a quality change into a shift in demand (shifting the intercept of the linear demand curve).

(9) Please provide us with a white paper (emphasizing the mathematics) specifying and deriving as appropriate the equations used in the economic model and, separately, the equations used in the engineering model of marginal cost. (Some of the equations appear to go beyond standard models and this would help us understand whether what we are seeing in the computer code reflects modeling choices or coding errors.) With respect to the engineering model in particular, please explain how the [REDACTED] is used to determine the number of congested sectors and the percent of traffic in excess of the traffic that can be carried by the available number of carriers, as well as the corresponding number of (a) conventional site splits, (b) oDAS systems and extra carriers beyond the two that are included, and (c) iDAS systems and extra carriers. That explanation should reference specific cells in the model, show how they relate to each other, and fully explain the formulas in each, including the use of different values for [REDACTED]. Also with respect to the engineering model, please explain how approximations in the distribution affect the results, and provide justification for these approximations relative to actual market traffic distributions.

(10) Could you please explain the criteria you used to choose the 15 markets selected for the model? Can you provide documentation that demonstrates the extent to which the selected markets are comparable to other markets across the country? There was an

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indication during the Economists' Forum that you were looking at other markets as well. Will that information be forthcoming?

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'R' followed by a 'C'.

Renata Hesse
Senior Counsel to the Chairman for Transactions