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October 6, 2016

Via ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Notice of Ex Parte: WC Docket Nos. 16-143, 15-247, 05-25, RM-10593

Dear Ms. Dortch:

On October 4, 2016, Frank Simone, Richard Clarke, Keith Krom and the undersigned, all of AT&T, and Philip Schoech and Mark Meitzen of Laurits R. Christensen Associates, met with Deena Shetler, Pam Arluk, Eric Ralph, David Zesiger, William Kehoe, Shane Taylor, Justin Faulb; and Christopher Koves of the Wireline Competition Bureau; Bill Dever of the Office of General Counsel; and Omar Nayeem of the Office of Strategic Planning (via telephone). We discussed the attached document, which summarizes Christensen Associates' critiques of the price cap reset and X-factor calculation methodologies proposed by Sprint in an ex parte filed August 31, 2016.[1]

In particular, Drs. Schoech and Meitzen emphasized that:

- There are no publicly available sources of data that can be used to estimate historical productivity gains (or losses) that are *exclusive* to DS1 and DS3 services. Rather, these metrics can only be approximated using data representing wider definitions of the BDS industry. Indeed, it has always been the case since CC Docket No. 87-313 that the Commission has used productivity data from industry definitions that are wider than just special access to set X-factors for special access.
- Of the three possible methodologies the Commission sought comment on for calculating a productivity-based X-Factor, the only appropriate methodology relies on the U.S. Bureau of Labor Statistics' ("BLS") Capital, Labor, Energy, Materials, and Services data ("KLEMS").
    - KLEMS provides combined publicly available data for the telecommunications and broadcast industries (the latter comprising only a very small fraction of the combined industry).[2] BLS uses these KLEMS data to generate consistent

[1] Declaration of Chris Frentrup and David E.M. Sappington, "F&S Declaration," contained in *Ex Parte* submittal from Jennifer Bagg, Counsel to Sprint Corporation, August 31, 2016.
[2] Christensen Associates, "Assessment of the FCC's Proposed Options for the special Access Price Cap X-Factor," by Mark E. Meitzen & Philip E. Schoech, *Business Data Services in an Internet Protocol Environment, et al.*, WC Docket Nos. 16-143, 15-247, 05-25, RM-10593 (filed June 28, 2016) ("*Christensen Initial Comments*").

measures of input price growth and total factor productivity for the combined industry – two of the three variables, along with growth in the Gross Domestic Product price index ("GDP-PI"), used by the Commission to compute the X-factor.[3]

- Input proportions suggested by the Connect America Cost model ("CACM"), along with posited price growth rates for a handful of input categories associated with this model cannot provide reliable estimates of actual ILEC input price growth for legacy TDM-based DSn services. This is because the CACM was developed exclusively for universal service purposes to produce estimates of forward-looking costs of mass market best-effort residential and small business broadband and voice services – services that the Commission rejects as being competitive substitutes for special access services. Further, the CACM was not designed to accurately capture the *actual* cost of even these best-effort services because it assumes a hypothetical perfectly efficient network architecture. But even more importantly, the input price growth estimates that Sprint proposes to couple with the input proportions suggested by the CACM were developed by the Commission staff over three years ago in response to peer review criticisms of the CACM — and to combat these criticisms the Commission staff stated that these posited input price growth estimates were purposefully designed to underestimate CACM network costs.[4]
- The Commission's third proposed methodology would rely on input proportions from the CACM in combination with a tiny amount of input price data that TDS submitted in this proceeding. Besides being proprietary and unvalidated, the TDS data would not address or eliminate any of the fundamental shortcomings associated with use of the CACM model.

➢ The original analysis by Sprint, the only party who proffered a methodology in support of a double digit percentage reduction in current price caps and substantial increase in the X-factor, was fundamentally flawed because it proposed to replace BLS KLEMS data with EU KLEMS on the mistaken belief that EU KLEMS data were more narrowly tailored to the telecommunications industry than the BLS KLEMs data. In fact, the EU KLEMS data incorporate the exact same industry definition as BLS KLEMS and also include broadcasting. Further, the particular EU KLEMS data selected by Sprint were incomplete and inapposite to the development of a proper X-factor for the Commission's special access price cap plan.[5]

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[3] Tariff Investigation Order and Further Notice of Proposed Rulemaking, *Business Data Services in an Internet Protocol Environment; Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Service,* WC Docket Nos. 16-143, 05-25, RM-10593, ¶¶ 404-407 (rel. May 2, 2016) ("*FNPRM*") (stating that X = GDPPI growth – Input Price growth + TFP growth).

[4] Federal Communications Commission, Peer Review of Connect America Phase II Cost Model, FCC Response to Professor Christiaan Hogendorn. Available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-322385A1.pdf.

[5] Drs. Meitzen and Schoech also showed that the EU KLEMS data (which are available only through 2010) are more outdated than the BLS data (which go through 2014). Further, the input price index selected by Sprint ignores price changes for the primary inputs of capital and labor. And, perhaps most importantly, the EU KLEMS data measure value-added productivity rather than gross-output

- Sprint's latest attempt to prop up an X-factor calculation methodology that would result in a large price cap reset and high prospective X-factor, abandons its discredited reliance on EU KLEMS, but now relies on an equally, if not more, flawed methodology.
  - Sprint's new proposal is mathematically impermissible in that Sprint proposes to use the BLS KLEMS data for TFP (one of the X-factor inputs), but to use CACM-related data for the input price growth component of the X-factor equation.
  - But to correctly calculate the X-factor (and, thus, the backward-looking price cap reset), the TFP component of the X-factor must be developed using the *same* measure for input price growth as is used in the overall X-factor equation. If Sprint consistently applied its CACM-based input price growth estimate to developing TFP as it proposes to use in the X-factor equation, the effects of its input price growth substitution would cancel out and produce the same X-factor result as Drs. Meitzen and Schoech found when they did the calculation using the correct measure of input price growth (BLS KLEMS data) – *i.e.*, there would be no basis for resetting price caps, and the annual X-factor should be no higher than 1.99 percent.
  - Even if Sprint's proposed violation of economic and mathematical principles (i.e., using different measures for input price growth in the X-factor equation than are incorporated into TFP) could be ignored, the overall input price growth estimates developed by Sprint rely on input proportions and price growth data associated with CACM which are wholly inappropriate here. Further, these estimates fail to provide a more tailored measure of input price growth in the BDS market than the BLS KLEMS data. Indeed, these input price growth estimates are for an entirely different type of network (all fiber residential mass market best-efforts broadband network) than DSn BDS services. And as noted earlier, the CACM-related input price growth estimates that Sprint proposes were purposefully developed to understate actual input price growth, which when used only in the X-factor formula (and not also in the TFP formula) would overstate the X-factor. In addition, Sprint's source data for the most important of these input prices (*i.e.*, that for labor) is clearly incorrect for the purpose of measuring KLEMS input price growth. Labor prices used for productivity analysis purposes must include both wages and non-wage benefits (*e.g.*, employer-paid healthcare). Sprint's measure, however, fails to account for non-wage fringe benefits – which, unlike wages, rose very rapidly from 2001-2014.

Drs. Meitzen and Schoech also discussed the importance of balancing the need for stability in the X-factor number with basing the results on recent productivity and market trends when determining the appropriate timeframe for calculating a forward-looking X-factor from historical data. Using the period 2005-2014 in setting the X-factor appropriately balances these two considerations.

Finally, Drs. Meitzen and Schoech discussed whether it would be appropriate to use a shorter, more recent time period for calculation of a forward-looking X. While Drs. Meitzen and Schoech continue to believe that the period from 2005-2014 gives us the best prediction of future

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productivity, which is not a valid metric for estimating productivity for purposes of the Commission's price cap system.

productivity trends in the telecommunications industry, they agreed that a shorter, more recent period could be used for that forward-looking calculation. If this was done, the BLS KLEMS would show that for the 3-year 2011-2014 period, the annual productivity-based X-factor would be 1.46 percent, and that for a 6-year 2008-2014 period, the X-factor would be calculated at 1.78 percent.

In sum, based on the record, the only valid source of publicly available data for consistently estimating productivity factors for special access is the BLS KLEMS data; and that these data, over the most appropriate 2005-2014 computation period, support an annual, productivity-based X-factor of 1.99 percent - which suggests that there is no basis for any one time reduction (or increase) to current price cap levels.[6]

Pursuant to section 1.1206 of the Commission's rules, this ex parte notification is being filed electronically for inclusion in the record of the above-referenced proceeding. If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,
/s/ Keith M. Krom

cc: Deena Shetler
Pamela Arluk
Eric Ralph
David Zesiger
William Kehoe
Shane Taylor
Justin Faulb
Christopher Koves
Bill Dever
Omar Nayeem

[6] Christensen Associates, "Reply Comments of Mark E. Meitzen & Philip E. Schoech," *Business Data Services in an Internet Protocol Environment, et al.*, WC Docket Nos. 16-143, 15-247, 05-25, RM-10593 (filed Aug. 9, 2016) ("*Christensen Reply Comments*").