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FOUNDED 1866

October 6, 2016

**By ECFS**

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20054

Re: *Business Data Services in an Internet Protocol Environment; Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, WC Docket No. 16-143, 15-247, 05-25, RM-10593*

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Dear Ms. Dortch:

The Commission has proposed to change the geographic basis for business data services (“BDS”) regulation from MSAs to smaller geographic areas such as census tracts or census blocks. As AT&T has previously explained, any such change would require extensive modifications to numerous sales, billing and ordering systems, and thus would necessitate a substantial period of transition at substantial cost to AT&T. Attached is a declaration by Martin Kelly – Associate Director-Technology in AT&T’s Technology development business unit – that documents the substantial changes that would be required, and the associated time and costs for such changes.

As Mr. Kelly explains, AT&T’s sales, billing and ordering systems currently track the location of each BDS service using the Common Language Location Information (“CLLI”) code. To identify the governing regulation for each services (e.g., price cap, Phase I, or Phase II), AT&T’s sales, billing, and ordering systems link to look-up tables that cross-reference the record’s CLLI code to the appropriate MSA and to that MSA’s regulatory designation to determine the correct billing rate. To the extent the Commission adopts a new regime that regulates rates at a more granular geographic level, such as census tract or census block, AT&T would have build from scratch a tract/block data repository, similar to the current CLLI/MSA repository, which AT&T’s sales, ordering and billing applications can use to match the service to

Marlene H. Dortch  
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the geographic region and thus to the correct regulatory status. AT&T would then have to modify dozens of inter-dependent sales, billing, and ordering applications (comprising of about ten thousand program components) to enable them to utilize the new tract/block data repositories.<sup>1</sup>

Mr. Kelly explains that when AT&T updated its systems to comply with the Commission revised pricing flexibility rules in 1999, the changes to AT&T's sales, billing, and ordering systems took eighteen months to comprehensively program and test. Based on Mr. Kelly's analysis and discussions with the outside consultants that help AT&T manage these systems, the changes to comply with the geographic regulations proposed here would be at least as extensive, would likely take at least eighteen months to complete, and would cost \$20-\$35 million.

Sincerely,

/s/ Christopher T. Shenk

Christopher T. Shenk  
*Counsel to AT&T Inc.*

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<sup>1</sup> Sprint's recent claim that price cap LECs would not face such complex and costly implementation issues is simply mistaken. See Letter from Jennifer P. Bagg (representing Sprint) to Marlene H. Dortch, FCC, dated October 5, 2016. Even if the Commission were to adopt Sprint's extreme proposals and treat all BDS services below 50 Mbps as non-competitive – an outcome that would be patently arbitrary – it is still the case that AT&T would have to incur all of the costs described in Mr. Kelly's declaration for TDM services above 50 Mbps. Similarly, as Mr. Kelly describes, none of AT&T's current systems are capable of distinguishing between different regulatory regimes governing Ethernet services, and thus AT&T would have to separately incur all of the costs described for Ethernet services above 50 Mbps as well. In addition, as Mr. Kelly explains and contrary to Sprint's assumptions, AT&T cannot use the method it currently employs to apply individually-negotiated tiered Ethernet credits as a "work around" for the full sales, ordering, and billing applications changes that such rule changes would require.

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

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In the Matter of	)	
	)	
Business Data Services in an Internet Protocol Environment	)	WC Docket No. 16-143
	)	
Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans	)	WC Docket No. 15-247
	)	
Special Access for Price Cap Local Exchange Carriers	)	WC Docket No. 05-25
	)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services	)	RM-10593
_____	)	

**DECLARATION OF MARTIN KELLY**

**October 6, 2016**

## **I. BACKGROUND AND PURPOSE**

1. My name is Martin Kelly. I am an Associate Director-Technology in AT&T's Technology Development business unit. I have over twenty years of wholesale billing experience and have spent the last eleven years in my current role of technical vendor management oversight for AT&T wholesale billing. I manage Carrier Access Billing Systems vendor relationships including monitoring vendor compliance with the obligations of the various contract agreements. During my career, I have also performed the roles of software programmer, designer, architect and testing manager. I have a Bachelors degree from Western Illinois University.

2. The purpose of this declaration is to describe the cost, time, and scope of IT work necessary to update AT&T's billing, ordering, and related applications to allow AT&T to update its ordering and billing structure to comply with a Business Data Services ("BDS") regime that applies regulations on a geographic basis that is smaller than the current Pricing Flexibility regulatory regime. Because the final BDS rules have not yet been promulgated, this declaration is based on the best available information to me at this time as to what those rules may include. The cost, time, and scope estimates for the project described below are based on my personal experience overseeing past IT application updates, discussions with AT&T's outside vendors, and input from other AT&T systems experts

## **III. REGULATIONS THAT REQUIRE MORE GRANULAR GEOGRAPHIC PRICING REGULATION WILL TAKE SUBSTANTIAL TIME AND COST TO IMPLEMENT.**

3. AT&T maintains dozens of IT applications to manage sales, ordering, billing, and tracking of BDS, both within its footprint and outside of its region. These applications often work in tandem. For instance, a customer may order BDS through one of a variety of ordering

applications. That application links to look-up tables to identify the appropriate regulatory treatment and rate for the ordered services. The ordering application then interacts with the appropriate billing application to create and/or update billing records to reflect the customer's order. Likewise, the relevant billing application interacts with many other applications, including AT&T's record look-up and billing adjustment applications. Hence, the fields and identifiers in all of these interrelated applications must be consistent across the system architecture.

4. In addition, the majority of these applications were developed in the 1980's and are written in older programming languages such as COBOL, PL/1, and IMS. Because AT&T today is made up of several Regional Bell Operating Companies ("RBOCs") that were operating independently when these programs were developed, each region within AT&T's footprint still maintains its own unique ordering and billing applications. Any company-wide ordering and billing changes must be implemented within each of these applications separately, and often require different fixes in different programming languages.

5. Today, legacy TDM services are subject to the Pricing Flexibility regulatory regime, which is administered on a Metropolitan Statistical Area ("MSA") basis. AT&T's existing ordering and billing applications allow it to automatically differentiate between MSAs designated as "price cap," "Phase I," or "Phase II," and to match facilities and services sold within an MSA with the billing rate appropriate for that MSA's regulatory designation. This is because all BDS (both legacy TDM and Ethernet services) locations are tracked within AT&T's billing and ordering applications by their Common Language Location Information ("CLLI"<sup>1</sup>) codes (*i.e.*, wire center identifiers). For legacy services, these applications link to look-up tables

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that cross-reference the record's CLLI code to the appropriate MSA and to that MSA's regulatory designation to determine the correct billing rate. Ethernet services (and other high bandwidth BDS services) are currently all billed at AT&T's Guidebook rate, but are subject to individually negotiated discounts which today are applied via credits issued in arrears.

6. As I understand it, the FNPRM in this proceeding proposes to convert the geographic basis for regulation to something smaller than an MSA, possibly to a census tract or census block. Either of these geographies would be smaller than a wire center area, and therefore, the existing CLLI code identifier could not be used to look up the corresponding regulatory designations and rates for AT&T's BDS sales.

7. In order to support customer ordering and billing of BDS based on a geography smaller than an MSA, AT&T will have to make substantial updates to its ordering, billing, and other applications. In total, it's likely that over twenty-five legacy RBOC applications will need to be updated to accommodate this change. In addition, with the limited information we have, we are projecting that many legacy AT&T applications will also be impacted to somewhat the same extent as the legacy RBOC applications: new interfaces to the centralized census data repository, sales tools and ordering applications, invoice display, journal changes, data warehousing, etc. and, of course, conversion of the embedded base. In addition, it is my understanding that many AT&T customers maintain their own BDS ordering applications, or contract with service bureau providers, that interface with AT&T's ordering and billing applications. Those applications will also have to be analyzed, and possibly updated, to support any new ordering requirements. However, I limit my discussion below to the changes we expect to have to make to the legacy RBOC applications.

8. As an initial matter, AT&T will have to create and maintain a centralized census tract/block data repository, similar to the current CLLI/MSA repository, with which AT&T ordering and billing applications will be able to cross-reference the geographic region to its regulatory status. This will operate in conjunction with rate tables which will provide the appropriate billing rate for services, based on whether they are sold in “competitive” or “non-competitive” regions. Rate tables for legacy TDM services may need to be updated, and more detailed rate tables for Ethernet and other high-bandwidth BDS services may need to be created, depending on the outcome of this proceeding.

9. AT&T will then have to significantly alter its Carrier Access Billing Systems (“CABS”) applications to bill on a more geographically-granular basis. First, AT&T will have to associate each BDS network element in the CABS applications to the relevant new geography, using network element street address information. Again, these elements are currently geographically associated with a wire center. Approximately half of AT&T’s CABS programs (with around ten thousand program components) will need to be enhanced to add a field identifying the relevant census tract or census block for each network element record and complex rating logic will need to be modified based on the new rate structures. AT&T has inherited five separate CABS applications through various transactions – CABS AIT (Ameritech region), CABS OOR (AT&T out-of-region), CABS SE (BellSouth region), CABS SW (SWBT and Nevada Bell regions), and CABS W (PacBell region). Each of these regional CABS applications is unique and will have to be updated independently.

10. AT&T’s ordering applications will have to be similarly updated to mirror the updated CABS applications’ new geographic location field and identifiers. Like the CABS applications, the ordering applications must be able to cross reference the central look-up tables

which track each geographical unit's regulatory treatment and relevant rates for any services a customer wishes to order. In addition, these applications must be able to "talk" to the CABS applications to allow for the automated creation and/or update of billing application records when a new order is placed. At least eight legacy RBOC ordering applications will be impacted – ARIS/EXACT (an order entry, control, tracking application), PBSI (an ordering application in the Midwest region), SOER (an order editing application), SOCS (an order distribution application), SORD-SW (an ordering application in the SWBT region), SORD-PB (an ordering application in the PacBell and Nevada Bell regions), LASR (a service request application), and OBF (a pre-order information application).

11. For these same reasons, the applications that allow AT&T sales teams to view customer billing detail on a network element-by-network element basis and to adjust bills as necessary must be updated to include an updated geographic location field. At least three applications which allow sales teams to view billing details will have to be updated – BOCABS (which allows AT&T representatives to view BellSouth region account data), CABS MW Online (which allows AT&T representatives to view Ameritech region account data), and TAXI (which allows AT&T representatives to view SWBT region account data) – and at least two applications used by AT&T employees to adjust customer bills will also have to be updated – Webtaxi (which allows AT&T representatives to make billing adjustments) and ACATS (a mechanized billing dispute and adjustment application).

12. In addition, at least one reporting application – EDW (AT&T's data warehouse) – and at least three other applications – eCARS (which allows for providing customer credits in arrears), OVALS (which validates customer and services addresses), and ARMS (AT&T's

accounts receivable application) – will also have to be updated to reflect a more granular geography.

13. Attached please find Exhibit A, a pictorial representation of the legacy RBOC BDS wholesale ordering, billing, and reporting application architecture. The applications highlighted in orange in this Exhibit will be impacted by any change in regulatory geography for BDS.

14. Again, for AT&T Ethernet products, AT&T's CABS applications currently bill the flat Ethernet Guidebook rate, which is then discounted via credits that are applied in arrears using AT&T's eCARS application. For commercially-negotiated agreements, AT&T's pricing and sales teams customize tiered contracts that specify the amount of credit a customer will receive for the specific BDS circuits associated with each tier. They then assign the customer a unique contract number for each credit tier. The customer (or AT&T's ordering concierge service) employs that contract number to order individual BDS circuits and circuit elements. Thus, each individual BDS circuit element is tagged with a contract number that relates to the negotiated credit level for the relevant tier. AT&T uses the eCARS application to then process those credits and apply them toward the customer's monthly bill. The process is labor intensive and customized. eCARS does not include any circuit element location information, and cannot be employed as a "work around" that would allow AT&T to avoid making the extensive IT updates described above.

15. Major changes to AT&T's ordering and billing applications in the past provide a good example of the time and resources required to implement the changes I've just described. For example, AT&T updated many of these same applications to allow billing legacy TDM services on an MSA-by-MSA basis, in order to comply with the FCC's 1999 Pricing Flexibility

Order. Those changes to the billing and ordering applications took eighteen months to comprehensively program and test. Even then, the applications required several subsequent major IT projects to correct bugs over the course of at least the next six years.

16. As I understand it, the scope of the work to update AT&T's ordering and billing applications to implement a new, more granular BDS regime will be similar to the IT changes required to implement the Pricing Flexibility regime, and properly coding and testing these application changes will require the same amount of time. In addition, based on the cost of similar past projects, we predict that the cost of implementing these changes will range from \$20 to \$35 million.

## VERIFICATION

I hereby swear under penalty of perjury that, based on the best information available to me, the foregoing is true and correct.

/s/ Martin Kelly  
Martin Kelly

Dated: October 6, 2016

# **EXHIBIT A**

# High Level Wholesale Ordering, Billing and Reporting System Architecture

