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ATTACHMENT A

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

In the Matter of)	
)	
)	
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
)	
)	

THIRD DECLARATION OF MATTHEW J. LOCH

1. I am the Vice President of Sales for TDS Telecommunications Corporation (“TDS”), a wholly owned subsidiary of Telephone and Data Systems, Inc. In this role, I have responsibilities for all wireline commercial sales functions, including both local exchange carrier and cable.

2. This declaration is in support of the Reply Comments of TDS Metrocom, LLC (“TDS CLEC”) in response to the Federal Communications Commission’s *Special Access FNPRM* which seeks comments on proposed changes to rules for special access services provided by Incumbent Local Exchange Carriers (“ILECs”) in price cap areas. I previously filed declarations in this docket on June 22, 2015 and January 27, 2016.

3. In this declaration, using TDS CLEC’s pricing estimate tool and our fiber ring in Madison Wisconsin as an example, I will explain why the FCC cannot assume that if TDS

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CLEC has fiber in a census block, then TDS CLEC can economically build a lateral to serve any customer in that census block, let alone throughout that census block. Using information from TDS's ILEC, cable and CLEC records, I will provide an estimate of the fiber density and competitive options for providing fiber. In addition, I will discuss the relative difference between the RBOC wholesale rates offered to TDS CLEC in buildings where a fiber-based competitor is present versus a building where no such competitor is present. Finally, I will explain why reasonable wholesale rates will drive investment in fiber facilities that will expand access to high speed broadband for small and medium business ("SMB") customers.

4. I understand that the RBOCs' initial comments argued it is relatively easy for a provider to extend laterals from an existing fiber network to provide facilities-based service to new customers such that a provider with fiber running through a census block is a potential competitor to the RBOC. I disagree for at least two reasons: (1) cutting into a continuous undisturbed fiber to add a splice point into the fiber ring in every census block would add significant extra cost to the project and could degrade the network by creating a potential new fault point in the fiber, thus impacting the overall integrity of the fiber transmission characteristics; and (2) even if a splice point exists in a census block, it may not be economical to build a lateral even short distances to serve a customer depending on the level of bandwidth the customer chooses and the resulting revenue potential.

5. I will start with a non-telecom example to frame the issue. A SMB on Main Street would like business from customers traveling on the highway that the state built to bypass the town. The four-lane highway runs right behind the SMB on Main Street and the highway exits are two miles north and two miles south of the SMB. Although an aerial view

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would show the SMB on the four-lane highway in the census block, in reality the SMB is severely disadvantaged in terms of customer traffic because potential customers travel at high speeds behind it and have to exit two miles before or after the SMB to patronize the business. Obviously, building a new exit ramp next to the customer so they could have more business would be nonsensical and extremely inefficient from a cost/benefit perspective.

6. Similarly, although a fiber optic cable may run through many census blocks, the determining factor for serving a business customer location is how close is the nearest splice point (exit ramp)? If a business is 100 feet from a fiber optic cable but the nearest splice point where a lateral can be run is 1,200 feet away, the proximity of the fiber (100 feet) to the business does not accurately represent the potential to build a lateral economically to serve that customer.

7. I will use TDS CLEC's fiber investment in Madison, Wisconsin as an example to illustrate this point. TDS CLEC has been a competitor in the Madison, Wisconsin market for nearly 20 years. Madison is one of our most penetrated markets and TDS CLEC has the largest business market share of any competitor to the RBOC in this market, including the cable MSO. The attached map shows TDS CLEC's fiber routes in Madison. Highlighted in green are the census blocks where TDS CLEC has fiber or laterals, and thin white lines show the boundaries between census blocks. The red dots are customer locations that connect directly to TDS CLEC fiber. This map does not show the thousands of TDS CLEC customers served with leased connections (including UNE DS3s, DS1s, DS-0s, and in some cases special access loops) that connect to TDS CLEC collocations at RBOC wire centers before being connected to our fiber ring.

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8. Out of the 4,068 census blocks in Madison, TDS CLEC has its fiber ring or laterals running through [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] census blocks, or [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] of the total census blocks. Notwithstanding the major investments TDS CLEC has made in this market, TDS CLEC has connected only [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] customers to TDS CLEC's fiber, less than [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] of the business locations in Madison.

9. Although we have fiber in hundreds of census blocks, TDS CLEC only has splice points in approximately 10% of the census blocks that its fiber ring runs through. This shows that the presence of TDS CLEC fiber in a census block does not establish TDS CLEC's ability to extend a lateral to a business customer in that block on an economical basis.

10. Moreover, census blocks are not uniform in size or shape. One census block in a downtown area may be a city block but another may be much longer than it is wide or even a non-geometric shape. This means that a splice point at one point in the census block may be distant from even the center of the census block, and more distant from the other end of the census block.

11. TDS CLEC has a pricing tool that enables our sales force to map the airline distance to a potential customer location from the nearest splice point on our fiber. After the planned fiber route distance is determined, the tool uses average build costs of [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] per foot, equipment costs of [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY

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CONFIDENTIAL] for electronics and a factor that considers overhead and return on investment to determine the minimum monthly rate TDS CLEC would need to charge the customer under a three- or five-year contract term to make the build economical. In my experience, this pricing tool is a reasonable approximation of the required revenue TDS CLEC determines through a more detailed engineering study if the customer, after being quoted the estimate, decides to move forward with a TDS CLEC build.

12. Using this pricing tool, I can estimate the monthly revenue required for a fiber build at various distances for a five-year contract term, which is the term most TDS CLEC customers choose. I compared the retail Ethernet rates we obtained from our customer survey with the pricing tool estimate of the monthly revenue required to build a lateral at lengths of 100, 250, 500, and 1,000 feet. The chart below shows whether our monthly revenue estimates using the pricing tool are above or below the monthly RBOC Ethernet retail rate quoted to our customers at various bandwidths.

Distance	10 Mbps	50 Mbps	100 Mbps
100 feet	Above (TDS CLEC monthly revenue required for fiber build above RBOC monthly retail rate (hereafter, Above Or Below)).	Above	Above
250 feet	Above	Above	Above
500 feet	Above	Above	Above
1,000 feet	Above	Above	Above

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13. As the chart shows, a fiber lateral build to a customer located 100 to 1,000 feet and beyond from the nearest splice point is not competitive at speeds ranging from 10 to 100 Mbps because TDS CLEC could not recover its required revenue and compete with lower RBOC retail rates.

14. In a January 2016 press release AT&T announced that it had reached 1 million business locations nationwide with its metro Ethernet solution, which is provided via fiber to the premise. AT&T stated that the new total reflected a significant increase in the last year. TDS CLEC has calculated the total number of businesses and the competitor market share in Madison, Wisconsin for four or more years. The most recent study showed total businesses at nearly 13,000. In contrast to AT&T, after nearly 20 years in the market, TDS CLEC, the largest competitor in Madison, has fewer than 100 business locations served via fiber to the premise.

15. In addition to the wholesale pricing disparity from retail for Ethernet services, we have experienced other related issues with the RBOCs relative to procurement of wholesale Ethernet services. In our TDS CLEC markets there are some business locations where the RBOC has already placed fiber to the building (on-net) and there is a fiber-based competitor(s) in the same building. In other building locations in the same market, RBOC fiber is connected to the building and TDS CLEC seeks to provide service as the sole competitor to the RBOC. In such cases the RBOC typically charges in the range of 15% -25% more for wholesale Ethernet service in buildings where there are no fiber-based competitors than where fiber-based competition to the building already exists. Similarly, I have observed that in our TDS CLEC markets where the RBOC does not yet have fiber extended to a building (off-net), the

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wholesale Ethernet rate charged to complete the fiber build is approximately 50% -55% more than what is charged for an on-net building where a fiber-based competitor is present.

16. In another example of an issue ordering Ethernet services from the RBOCs, TDS CLEC relies on an RBOC database that matches the business location with the appropriate pricing (on-net or off-net). In response to a customer need TDS CLEC secured pricing for two separate business locations in a certain market. Both buildings were identified as off-net and TDS CLEC confirmed that they were off-net from the RBOC. TDS contracted for wholesale Ethernet service at both locations, agreed to pay the off-net rates, and the services were installed.

17. Subsequently, TDS CLEC contacted the RBOC to request pricing for another wholesale Ethernet circuit at each of these now on-net buildings. The RBOC refused to acknowledge these buildings as now served by fiber and asserted that higher pricing for these new circuits was still required as if the building did not have fiber built to it.

18. In another example, TDS used the RBOC database to confirm that a business location was on-net. After placing the order, the RBOC notified TDS CLEC that it was an off-net location subject to the higher wholesale price. We provided documentation that the database's on-net designation was correct, but the RBOC rejected our claim. In both cases, unless and until we are able to get the RBOC to change this anti-competitive behavior, TDS CLEC will be precluded from competing for these new business opportunities and the customer cannot secure fair pricing and the solution it needs to grow their business.

19. As previously mentioned, TDS CLEC serves thousands of customers in Madison using UNE DS3s, DS1s, DS-0s and Special Access loops today. Its ability to continue to serve

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those customers is threatened as customers demand higher and higher bandwidth and the market increasingly moves to Ethernet. Over the past four years, TDS CLEC's share in the business market has gone from a high of [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] to [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] in Madison.

20. TDS CLEC is losing customers, both existing and potential, to the incumbent LECs and cable MSOs. Based on my experience as the head of sales for both TDS CLEC's and TDS's cable business broadband sales, the types of business customers that choose best efforts cable broadband over dedicated, high speed broadband typically are very small (fewer than 10 employees) and do not operate businesses that depend on cloud-based back office services requiring symmetrical download and upload speeds with service level guarantees.

21. While these types of customers may be willing to try best efforts broadband, in our experience, cable broadband has a much higher churn rate than TDS CLEC dedicated broadband. For example, TDS CLEC's monthly customer churn rate is approximately [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL]. In contrast, TDS Broadband LLC ("TDS Cable") business monthly customer churn rate is approximately [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL]. This shows that business customers are generally not satisfied with the lack of service quality and availability of cable shared, best efforts broadband compared to the service quality and availability of dedicated, carrier class broadband from LECs.

22. TDS Cable has a shared, hybrid fiber coax network that reaches only approximately [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY

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CONFIDENTIAL] of the approximately 26,000 businesses located in its multistate franchise area and currently serves approximately **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** business customers in the 5 states, primarily with best efforts cable modem service. TDS Cable competes with price cap LECs, including AT&T, CenturyLink, and Windstream. Like TDS CLEC, TDS Cable must make economically justified decisions to invest in building out its network to serve business customers.

23. With regard to the costs to extend a lateral from the existing TDS Cable HFC system to a business location, TDS Cable on average spends approximately **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** to build out either a coax or fiber lateral and we only receive an average monthly recurring charge of **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]**, making most builds uneconomical.

24. SMBs want and need broadband access that is: (1) reliable – not susceptible to moisture, lightning; (2) scalable – able to boost speeds without installing new central office hardware or customer premises equipment; and (3) symmetrical – to enable high upload speeds for VoIP, cloud, video conferencing and virtual private networks. Ethernet over fiber is the best technology available to meet SMB broadband needs both now and in the future. Although some of the smallest SMBs may find best efforts broadband or shared Ethernet acceptable, it is not sufficient for the majority of the SMBs that TDS CLEC serves and it will likely be even less sufficient as SMB's bandwidth demands increase in the future.

25. TDS seeks to provide fiber to its top percentage of customers but cannot economically build most last mile connections given the handicaps discussed in Mr. Butman's

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previous Declaration and my previous Declarations. With reasonable wholesale rates, TDS CLEC will drive new capability and new investment. TDS CLEC itself will invest in endpoints, network electronics and VoIP infrastructure. TDS CLEC also will drive outside and inside plant investment by the RBOC both to serve TDS CLEC's wholesale demands and to compete against a second or third provider in the market. Each new fiber connection TDS CLEC orders helps the RBOC deepen their fiber penetration. Each new wholesale fiber build begets a new retail fiber build for the RBOC. Although the CLEC may have ordered the fiber connection, the RBOC owns the asset. Reasonable wholesale rates for Ethernet fiber builds therefore would result in greater fiber penetration and increase SMB access to dedicated, high speed broadband services - all in the public interest.

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I declare under penalty of perjury that the foregoing statements are true and correct to the best of my information and belief.



Matthew J. Loch

Dated: February 19, 2016

ATTACHMENT TO LOCH DECLARATION REDACTED IN ITS ENTIRETY