Before the
Federal Communications Commission
Washington, D.C.

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

COMMENTS OF THE
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION (CCIA)[1]

CCIA respectfully submits these comments in the above-referenced proceeding regarding the Commission's proposed changes to its rules for business data services (BDS). CCIA applauds the Commission for seeking to chart a new course for the regulation of BDS that will facilitate competition for enterprise services, incentivize the deployment of next generation networks, and ultimately promote innovation and economic growth.

[1] CCIA represents large, medium, and small companies in the high technology products and services sectors, including computer hardware and software, electronic commerce, telecommunications, and Internet products and services. Our members employ more than 750,000 workers and generate annual revenues in excess of $540 billion. A list of CCIA's members is available online at http://www.ccianet.org/members.

I. The Commission is Correct that "It is Time for a New Start."[2]

Since 1999, the Commission has tried different ways to address the persistent incumbent control and lack of competition in the BDS marketplace.[3] However, as noted by a previous version of AT&T, the Commission's predictions in the *Pricing Flexibility Order* did not reflect market realities, and some of the descendants of the Bell system were able to charge rates for BDS that exceeded competitive levels.[4] Although the Commission opened this proceeding at AT&T's request in 2005,[5] for over a decade, reform of the BDS marketplace has been delayed, costing consumers billions and delaying the deployment of competitive networks.

The BDS market itself is worth at least $45 billion.[6] The prolonged wait for regulatory reform has enabled incumbents to continue to exercise out-sized market power to overcharge for

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[2] *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. 15-27; *Special Access Rates 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, Tariff Investigation Order and Further Notice of Proposed Rulemaking at ¶ 4 (rel. May 2, 2016) (*FNPRM*).

[3] *See Petition of U.S. West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, CC Docket No. 98-157, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221 (1999) (*Pricing Flexibility Order*); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Sixth Report and Order in CC Docket Nos. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, Eleventh Report and Order in CC Docket No. 96-45, 15 FCC Rcd 12962, 13038- 39, paras. 183-84 (2000) (*CALLS Order*), *aff'd in part, rev'd in part, and remanded in part, Tex. Office of Pub. Util. Counsel v. FCC*, 265 F.3d 313 (5th Cir. 2001), *cert. denied, Nat'l Ass'n of State Util. Consumer Advocates v. FCC*, 535 U.S. 986 (2002), *on remand, Access Charge Reform*, CC Docket Nos. 96-262, 94-1, 99-249, 96-45, Order on Remand, 18 FCC Rcd 14976 (2003) (establishing a regime, as devised by incumbents, that aimed for market-based rate setting).

[4] *See* AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, RM-10593 at 1-7, 20, 34-36, 39-40 (filed Oct. 15, 2002) ("As detailed below, there is now indisputable proof that: (i) large LECs, and particularly the Bell Operating Companies ('Bells'), retain pervasive market power in the provision of these services, (ii) the large ILECs are abusing that market power with patently unjust and unreasonable rates that impose a multi-billion dollar annual overcharge or tax on American businesses and consumers and also severely harm both local and long distance competition, (iii) the Commission's existing rules are incapable of addressing this worsening crisis, and, indeed, only exacerbate the problem, and (iv) the Commission therefore has a clear legal obligation promptly to reform its regulation to protect the public interest and to put an end to these monopoly abuses.").

[5] *Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, RM-10593, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 1994 (2005) (*Special Access NPRM*).

[6] *See FNPRM* at ¶ 44 ("Incumbent LECs and competitive providers reported revenues of almost $45 billion for 2013 for the sale of dedicated services").

BDS to the tune of $20 billion per year.[7] Over the past five years, those overcharges have cost our economy an estimated $150 billion.[8] However, recently the Commission has taken a proactive stance and utilized the information it has gathered pursuant to the most comprehensive data collection in the Commission's history[9] to finally usher in a new era for the BDS marketplace.

II. Action on BDS is Crucial to Networks and the Broader Economy.

Global IP traffic is projected to grow three-fold from 2015 to 2020, representing an annual growth rate of twenty-two percent.[10] Furthermore, mobile data traffic is projected to grow eight-fold from 2015 to 2020, for an annual growth rate of fifty-three percent.[11] A key driver of this growth is video. Consumers want to watch what they want, when they want, and on the device they want. IP video traffic is projected to increase three-fold from 2015 to 2020, and by 2020, IP video will account for eighty-two percent of all IP traffic compared to 2015 when it accounted for seventy percent.[12] Furthermore, an increasingly important component of the projected growth in global IP traffic is from mobile traffic and connected devices known as part of the Internet of Things (IoT).[13] By 2020, there will be 3.4 networked devices per capita – an increase from 2.2 in 2015.[14]

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[7] Mark Cooper, *The Special Problem of Special Access: Consumer Overcharges and Telephone Company Excess Profits*, CONSUMER FEDN OF AM. at 1 (April 2016), https://ecfsapi.fcc.gov/file/60001568772.pdf.

[8] *Id*.

[9] *See AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318 (2012) (*Data Collection Order* or *Special Access FNPRM*) (beginning a comprehensive effort to collect granular data on BDS pricing, which finally concluded in 2015); *see also Ex Parte* Letter from Jennifer Bagg, Harris, Wiltshire & Grannis LLP, Counsel to Sprint Corp., WC Dkt. No. 05-25, RM-10593, WC Dkt. No. 15-247, at 3 (filed Apr. 18, 2016) (highlighting the data collection's record of 104 million customer pricing records and 7.2 million circuits).

[10] *VNI Forecast Highlights*, CISCO.com, http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html (last visited June 28, 2016).

[11] *Id*.

[12] *Id*.

[13] *See* Notice, Request for public comments, The Benefits, Challenges, and Potential Roles for the Government in Fostering the Advancement of the Internet of Things, 81 Fed. Reg. 19956, 19957 (April 6, 2016), *available at*

Devices connected to the Internet, including mobile phones, have proven to be incredible platforms for innovation and economic growth even for long-established industries.[15] Indeed, that IoT is projected to generate $4 trillion to $11 trillion from 2015 and 2025.[16] However, the proliferation of connected devices and increase in mobile traffic will place profound constraints on telecommunications networks and infrastructure. Network operators, particularly wireless carriers, will endure increasing pressure to densify their networks and provide greater capacity to keep up with demand from additional devices connected to the Internet and consumer usage. Carriers will need to utilize more backhaul to connect additional antennae and towers to their networks. However, the high prices that ILECs charge for BDS placing significant constraints on competitors. For example, connecting a tower to a wireless carrier's network can amount to roughly one-quarter of the tower's operating cost.

The lack of competition in this marketplace, as well as the high costs imposed by ILECs on their competitors, has the potential to delay the deployment of 5G networks. As Chairman Wheeler recently noted: "Lack of competition doesn't just hurt the deployment of wireless

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https://www.federalregister.gov/articles/2016/05/11/2016-11124/the-benefits-challenges-and-potential-roles-for-the-government-in-fostering-the-advancement-of-the [hereinafter "NTIA Request for Comment"] (defining the Internet of Things (IoT) as a "broad umbrella term that seeks to describe the connection of physical objects, infrastructure, and environment to various identifiers, sensors, networks, and/or computing capability").

[14] *VNI Forecast Highlights*, CISCO.com, http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html (last visited June 28, 2016).

[15] *See Smartphones on wheels*, ECONOMIST.COM (Sept. 6, 2014), http://www.economist.com/news/technologyquarterly/21615060-way-cars-are-made-bought-and-driven-changing-mobile-communications (cars); Chris Morris, *Ordinary Home Appliances Are About to Get Really Sexy*, FORTUNE.COM (Jan. 6, 2016, 2:08 PM), http://fortune.com/2016/01/06/home-appliances-ces-2016/ (home appliances); Nile Lars, *Connected Medical Devices, Apps: Are They Leading the IoT Revolution – Or Vice Versa?*, WIRED.COM, http://www.wired.com/insights/2014/06/connected-medical-devices-apps-leading-iot-revolution-vice-versa/ (last visited June 28, 2016) (medical devices); Office of Electricity Delivery & Energy Reliability, Technology & Development: Smart Grid, ENERGY.GOV, http://energy.gov/oe/services/technology-development/smart-grid (last visited June 28, 2016) (electric utilities).

[16] James Manyika et al., *Unlocking the potential of the Internet of Things*, MCKINSEY GLOBAL INSTITUTE (June 2015), http://www.mckinsey.com/business-functions/business-technology/our-insights/the-internet-of-things-the-value-of-digitizing-the-physical-world.

networks today, it threatens as well to delay the buildout of 5G networks with its demand for many, many more backhaul connections to many, many more antennae."[17]

Competitive carriers face considerable pressure, not just to attract consumers, but also for their networks to accommodate increasing traffic. Competitive carries, as well as other businesses, hospitals, libraries, and universities, rely on BDS circuits to provide dedicated, high-capacity broadband lines that can effectively transport data.[18] However, today's highly concentrated market for BDS imposes high costs on these entities. The current BDS market hinders the ability of competitive carriers to allocate resources for deploying new facilities and densifying their networks.[19] For example, seventy-three percent of BDS locations are served by just one incumbent without another facilities-based competitor, and "almost all purchaser locations, 97 percent, are served by only one or two suppliers".[20] The lack of competition in ninety-seven percent of locations diminishes the pressure for incumbents to compete on price, which poses significant costs not just for competitive carriers, but also for other businesses, schools, and hospitals. The reforms sought by the *FNPRM* will help promote more options for BDS customers, including competitive carriers that are seeing traffic increase rapidly due to IoT devices and consumers uses.

III. The *FNPRM* Embraces Key Principles for a Competitive BDS Marketplace.

In the *FNPRM*, the Commission has identified "four fundamental principles" that are key to establishing a more competitive BDS marketplace.[21] The Commission also has an opportunity

[17] Tom Wheeler, Chairman, Fed. Commc'ns Comm'n, "The Future of Wireless: A Vision for U.S. Leadership in a 5G World," National Press Club, Washington, D.C. (June 20, 2016), http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0620/DOC-339920A1.pdf.

[18] *See generally FNPRM* at ¶¶ 200-201 (describing the importance of and variety of uses of BDS for large, medium, and small businesses).

[19] *See id.* at ¶ 203 (explaining that CLECs purchase BDS where they do "not currently have network and where extending their networks would not be profitable").

[20] *Id.* at ¶ 181.

[21] *Id.* at ¶ 5 ("competition is best"); *id*. at ¶ 6 ("the new regulatory framework should be technology-neutral"); *id*.

with the *FNPRM* to ensure a flexible regulatory framework that will be able to adjust to new realities in the market.[22]

Recognizing that "competition is best"[23] and in keeping with the Chairman's oft-stated mantra of "competition, competition, competition,"[24] the *FNPRM*, through the Tariff Investigation Order, addresses ILEC terms and conditions that have thwarted competition. The Commission rightly decided that some of the terms and conditions imposed by ILECs on BDS customers, like competitive carriers, small businesses, healthcare providers, and libraries and schools are anti-competitive.[25] Although ILECs often called some of their offerings "discount plans," many included early termination penalties, shortfall penalties, overage penalties, and circuit migration charges, which stifled the ability of competitive carriers to expand or reinvest in their networks. The Commission has concluded its terms and conditions investigation from 2015, but it should not end its oversight of terms and conditions, like those that it ruled unjust and unreasonable so that ILECs will not be able to create additional provisions that would unfairly hinder competitive carriers and impose significant costs on customers like small businesses, hospitals, and libraries.

The Commission should have different competitive thresholds for low-bandwidth and high-bandwidth services. Circuit-switched BDS, like DS1 and DS3 TDM services remain important for enterprise and institutional customers.[26] Furthermore, these circuits still represent

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at ¶ 7 ("Commission actions should remove barriers that may be inhibiting the technology transitions"); *id*. at ¶ 8 ("the Commission should construct regulation to meet not only today's marketplace, but tomorrow's as well.").

[22] *See id.* at ¶ 256 (acknowledging that the Commission's previous efforts at BDS regulation "turned out to be a poor measure of the presence of competition" and that new regulations need to take into account that "the market will continue to evolve and that market power and market positions are likely to shift over the next ten to fifteen years and beyond").

[23] *Id.* at ¶ 5.

[24] *Cf.* Tom Wheeler, Chairman, Fed. Commc'ns Comm'n, Prepared Remarks at the Ohio State University Columbus, Ohio (Dec. 2, 2013), https://apps.fcc.gov/edocs_public/attachmatch/DOC-324476A1.pdf ("We must protect competition where it exists. We must promote competition where it may not be fulsome.").

[25] *FNPRM* at Sec. IV.

[26] *Id.* at ¶ 2 ("the warhorses of enterprise services").

about sixty percent of revenue for the whole BDS marketplace.[27] Yet, new entrants would generally want to compete with incumbents by offering higher speeds than those offered by these legacy circuits. A noncompetitive threshold should recognize the economic realities of competing with legacy, circuit-switched services. Moreover, in order to further incentivize competition for high-capacity circuits at higher speeds, there should be a high-bandwidth threshold where services would be deemed competitive. Furthermore, the Commission should periodically evaluate whether these low-bandwidth and high-bandwidth thresholds reflect market conditions.

IV. Conclusion

After a decade of delay, and following multiple calls for revisiting its regulations,[28] the Commission is finally taking a proactive step to determine how the market for BDS can be more competitive. Such action can provide customers with more options and better prices for high-capacity data lines. BDS remains a crucial broadband input for businesses, banks, competitive network providers, data centers, factories, hospitals, and universities. These circuits serve as critical links in data networks by providing guaranteed transmission of high volumes of data. Competitive carriers rely on BDS when they cannot connect their cell phone towers with their own infrastructure, and they rely on BDS when the need to keep enterprise customers connected outside their networks. As mobile usage continues to grow and consumers demand more from

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[27] *Id.* at ¶ 90.

[28] *See, e.g. AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM-10593 (filed Oct. 15, 2002); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-07-80, FCC NEEDS TO IMPROVE ITS ABILITY TO MONITOR AND DETERMINE THE EXTENT OF COMPETITION IN DEDICATED ACCESS SERVICES (Nov. 2006), http://www.gao.gov/assets/260/254069.pdf; (finding a lack of competition and recommended reform because "facilities-based competitive alternatives for dedicated access are not widely available"); *The National Broadband Plan*, FED. COMMC'NS COMM'N, Mar. 17, 2010, http://www.broadband.gov/plan/4- broadband-competition-and-innovation-policy/ (Chapter 4 on Broadband Competition and Innovation Policy) ("The FCC should comprehensively review its wholesale competition regulations to develop a coherent and effective framework and take expedited action based on that framework to ensure widespread availability of inputs for broadband services provided to small businesses, mobile providers and enterprise customers.").

their networks, BDS will continue to be critical for facilitating our nation's economy and our health and education systems. The Commission should continue to follow its four principles[29] as it seeks to foster competition for BDS.

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Respectfully submitted,

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[29] *See supra* note 21.