REDACTED – FOR PUBLIC INSPECTION

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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

JOINT REPLY COMMENTS OF CENTURYLINK, INC., CONSOLIDATED COMMUNICATIONS, FAIRPOINT COMMUNICATIONS, INC., AND FRONTIER COMMUNICATIONS CORP.

August 9, 2016

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EXECUTIVE SUMMARY

The opening comments reveal continued divisions over the issues presented in the FNPRM, arising largely from the stubborn refusal of those seeking expansive new regulation to acknowledge the facts about the business data services ("BDS") marketplace. In these reply comments, the Mid-Size ILECs focus on several particularly misconceived claims made by proponents of expansive regulation. These claims would be especially damaging if erroneously validated and incorporated into the Commission's new BDS framework.

Proposals to Slash BDS Rates are Misguided and Flawed. Claims by regulatory proponents that BDS rates are too high ignore record evidence of intense BDS competition and rapidly falling prices – competitive realities that are confirmed by the initial comments filed by many of the Mid-Size ILECs' competitors. BDS prices are dropping even as ILEC unit costs are increasing, disproving the notion that ILECs are collecting massive revenues through inflated prices. Regression results show that, if anything, there is very little difference between rates in "competitive" and "non-competitive" areas. And there is no evidence to support the counterintuitive notion that productivity has been increasing for legacy DSn services, which are nearing the end of their life cycle and are not enjoying significant efficiency gains. In addition, further econometric analysis demonstrates the impropriety of adopting either a positive X-factor or a one-time "catch up" rate cut. Analysis submitted today by Drs. Mark Schankerman and Pierre Régibeau shows that a proper application of United States KLEMS data would warrant a rate *increase* of between 6.45 and 17.5 percent. And, as Drs. Mark Israel, Daniel Rubinfeld, and Glenn Woroch show in their Third White Paper, also submitted today, none of the regression analyses in the record demonstrate otherwise. Given the record evidence and the flaws inherent in the regressions being used to justify reductions, the Commission should be especially wary of calls for significant rate cuts. This is especially so given that artificially low prices would merely prop up demand for legacy services, at the expense of the very technological migration the Commission avowedly launched this proceeding to accelerate.

Competitive Pressure from Cable-Provided BDS Services Is Undeniable and Directly Relevant. Any regulatory regime the Commission adopts here must account not only for so-called "best efforts" cable service, but also for recent revelations regarding hybrid fiber-coaxial ("HFC") buildout and Metro Ethernet-capable headends. While cable providers assert that their HFC-based offerings are not substitutes for ILEC BDS services, their representations to investors, potential customers, and the Commission show they (1) are using their existing plant to provide real competition to ILEC BDS offerings and (2) are both willing and able to extend fiber to interested customers. Even in areas where cable providers have not currently deployed last-mile fiber, the fact that Comcast, Charter, Time Warner Cable, and Cox had upgraded their headends to provide Metro Ethernet service in more than **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** census blocks by 2013 (some 22 times as many census blocks as originally believed) demonstrates that they could readily deploy such facilities in the face of customer demand. The Commission Staff has erroneously concluded that its regressions' failures to show falling prices in the face of cable competition mean that competition does not exist, but in reality these results – by the logic of the

Commission's own hired expert – show that the markets at issue are competitive. Indeed, given the regressions' own flaws, the markets at issue are even more competitive than those analyses indicate. The staff's regressions also reinforce the debilitating methodological weaknesses of the study performed by Dr. Marc Rysman for use in this docket, which arbitrarily rejected evidence of newly revealed cable competition (a choice that was effectively shielded from peer review).

Even setting aside the Ethernet-capable cable facilities, the Commission must take into account lower-cost, DOCSIS-based cable competition. Marketplace evidence (reinforced by a recent USTelecom survey of BDS customers' preferences) demonstrates the lack of any valid basis for distinguishing these so-called "best efforts" services from other BDS offerings – especially in the DS1 markets that many in this proceeding argue are most in need of regulation – and dismissing their relevance.

The Verizon-INCOMPAS Proposal Is Not a Compromise and Does Not Offer a Viable Roadmap for This Proceeding. Far from offering a middle ground that accounts for the viewpoints of all stakeholders, the CLEC-oriented framework proposed at the eleventh hour by Verizon and INCOMPAS reflects the mutual worldview of entities whose business interests have recently come into alignment. In short, after restructuring its business model by shedding ILEC exchanges it no longer wants – exchanges several of the Mid-Size ILECs stepped up to serve – and moving to acquire one of the largest CLECs (XO Communications), Verizon has become a large-scale purchaser (and perhaps even a *net* purchaser) of out-of-region BDS. The fact that CLECs (and *only* CLECs) immediately lined up behind the proposal shows that this framework is no compromise. Indeed, in some respects the proposal is more extreme than even the proposals set out in the FNPRM – most notably, in deeming all BDS below 50 Mbps as non-competitive, a sweeping (and apparently unrebuttable) presumption that conflicts with evidence of ubiquitous competition in the provision of services below that threshold and with the Commission's stated commitment to a data-driven approach. The proposal's utility is further undermined by its improper exclusion of UNE-based competition and so-called "best efforts" cable service that compete with ILEC BDS, reliance on census blocks, and application of an unnecessary and investment-killing 4.4 percent annual productivity factor. The Commission should reject this flawed and one-sided proposal.

The Commission Should Not Regulate Rates for Service Packages Involving Both "Competitive" and "Non-Competitive" Markets. Because multi-location BDS customers are highly valued, sophisticated entities that enjoy significant bargaining power, and because rivalry in "competitive" areas will discipline rates for multi-location service packages, there is no basis for the Commission to adopt its "geographic tying" ban or to apply price caps to bundled service packages. Instead, the Commission should clarify that freely negotiated BDS service packages that include areas deemed to be "competitive" and "non-competitive" are outside the scope of price cap regulation.

The Commission Should Reject Other Claims That Lack Any Legal or Factual Basis. Various other claims also warrant repudiation. First, the Commission should reject claims that *ex ante* rate regulation is necessary unless a market includes four or more competitors. As

economic theory and the Commission's experience in the wireless sector make clear, the presence of just two competitors will obviate the need for such rate regulation and promote competitive pricing. Second, contrary to claims made in some opening comments, the Commission lacks the legal authority to "reverse" enterprise broadband forbearance (and certainly is not required to do so). Third, there is no need for the Commission to specify a particular relationship between wholesale and retail rates or to otherwise regulate wholesale rates. Parties that insist otherwise continue to advance a vision of the BDS marketplace that has absolutely no grounding in reality. Moreover, their proposed solutions to these imagined problems are nonsensical, as there is no basis for using foreign costs as benchmarks in this country, and no necessary relationship between wholesale and retail rates (particularly since the notion that ILECs systematically charge wholesale rates that are higher than the corresponding retail prices is dubious to begin with). Fourth, claims that ILECs providing service out-of-region only purchase BDS from other ILECs are conclusively refuted by record evidence showing extensive reliance on competitive providers' offerings. Finally, allegations of cross-subsidization in ILECs' rate structures are meritless.

The Proposed New Information Collection is Excessive and Should Be Substantially Reduced. While the Mid-Size ILECs support timely reporting of new competitive BDS service offerings (a necessary component of any effective regime going forward), the scope of the FNPRM's proposed mandatory information collection goes far beyond such information and should be substantially scaled back. The costs and burdens the proposed collections would impose – for instance, by requiring BDS providers to disclose a wide variety of narrative information about various categories, and to repeat the exercise every three years – raise serious concerns under both the APA and the Paperwork Reduction Act. Limiting the data collection will address these flaws while providing the Commission with sufficient information to monitor the future growth of BDS.

* * *

Ultimately, calls in the opening comments for drastically expanded BDS regulation are premised on flawed economic analyses, faulty legal claims, and empty rhetoric. The Mid-Size ILECs respectfully ask the Commission to resist these demands and to continue its pursuit of policies that drive innovation and investment, especially in rural America. These policies have protected business and residential customers alike, and expanded consumer welfare, for a generation. There is no reason in fact or law to abandon them here.

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JOINT REPLY COMMENTS

CenturyLink, Inc. ("CenturyLink"), Consolidated Communications ("Consolidated"), FairPoint Communications, Inc. ("FairPoint"), and Frontier Communications Corp. ("Frontier") (collectively, the "Mid-Size ILECs") submit these joint reply comments in response to the opening submissions in the above-captioned dockets.

INTRODUCTION

The opening comments reveal continued divisions over the issues presented in the FNPRM,[1] arising largely from the stubborn refusal of those seeking expansive new regulation to acknowledge the facts about the business data services ("BDS") marketplace. CLECs and other regulatory proponents persist in portraying a fictive BDS marketplace in which ILECs enjoy widespread market power that they routinely leverage to overcharge and otherwise harm

[1] *Business Data Services in an Internet Protocol Environment*, Tariff Investigation Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 4723 (2016) ("FNPRM").

customers.[2] On that basis, they urge the Commission to impose radical rate reductions and assorted other mandates on select BDS providers, rescind existing regulatory relief that was intended to promote deployment and benefit consumers and has succeeded in fulfilling this goal, and establish a new competitive test that would maximize the number of markets subject to both remedies.[3]

The world described by those seeking expansive regulation, however, has no basis in reality. The record – which includes the results of the Commission's expansive data collection – demonstrates extensive and growing BDS competition, especially in connection with the higher-capacity services for which demand is rising.[4] Record evidence indicates that competitive providers had captured more than half of all revenues in the BDS marketplace by 2013 and increased their BDS revenues by an additional 46 percent between 2013 and 2015.[5] CLECs themselves have boasted in these dockets about the significant strides they have made in

[2] *See, e.g.*, Comments of Birch, EarthLink, and Level 3, WC Docket Nos. 16-143 *et al.*, at 4, 14 (filed June 28, 2016) ("Joint CLEC Comments"); Comments of Sprint Corporation, WC Docket Nos. 16-143 *et al.*, at vi, 17-19 (filed June 28, 2016) ("Sprint Comments"); Comments of Windstream Services, LLC, WC Docket Nos. 16-143 *et al.*, at 6-7 (filed June 28, 2016) ("Windstream Comments"); Comments of Public Knowledge, Open Technology Institute at New America, Common Cause, Next Century Cities, Engine, and Schools, Health & Libraries Broadband Coalition, WC Docket Nos. 16-143 *et al.*, at 2, 6-7 (filed June 28, 2016) ("Public Knowledge Comments").

[3] *See, e.g.*, Joint CLEC Comments at 12-13, 39-40, 57-62; Sprint Comments at 5-29, 42-64, 79-86; Windstream Comments at 36-53, 58-60; Public Knowledge Comments at 5-6, 10-14.

[4] *See, e.g.*, Mark Israel, Daniel Rubinfeld, and Glenn Woroch, White Paper, Competitive Analysis of the FCC's Special Access Data Collection, at Table C (filed Jan. 27, 2016) ("Initial Econometric Analysis") (finding that competitors operated facilities in 95.2 percent of *all* census blocks in which the ILEC offered special access-type service, 97 percent of all connections reported to the Bureau were in census blocks in which competitors had facilities, and 98.9 percent of all business establishments were in such census blocks).

[5] Comments of Comcast Corp., WC Docket Nos. 16-143 *et al.* (filed June 28, 2016) ("Comcast Comments"), Ex. B, Declaration of John W. Mayo ¶ 52 ("Mayo Declaration").

providing competitive BDS services,[6] leading to internal contradictions in their advocacy that might be amusing if the stakes were not so high. For instance, Level 3 claims that there is "no actual competition" in the provision of BDS but then admits immediately thereafter that it will charge prices below its list price because it "must compete with incumbent LECs that reduce their own prices when faced with competition from Level 3."[7] And Windstream states that in what it deems "non-competitive markets" it is nonetheless "able to offer business, government, and non-profit customers choice for Ethernet services" using unbundled loops and Ethernet-over-copper ("EoC") – raising some question as to how Windstream defines the term "non-competitive" and undermining its claims about the limited availability of wholesale inputs.[8]

Evidence contained in the cable industry's recent submissions reinforces the vital and growing role of cable BDS offerings provisioned via not only so-called "best efforts" DOCSIS service, but also widespread Metro Ethernet capabilities furnished over fiber optics and hybrid fiber-coaxial ("HFC") plant – plant that can readily be upgraded to serve customers requiring

[6] *See, e.g.*, Comments of Birch, Integra, and Level 3, GN Docket No. 13-5, at 30 (filed Feb. 5, 2015) (stating that "competitive carriers have invested in central office upgrades to deliver Ethernet-over-copper services to hundreds of thousands of business customer locations that are not within reach of their fiber networks") (citation omitted); Comments of XO Communications on the Tech Transitions Notice of Proposed Rulemaking and on the Petition for Declaratory Ruling of Windstream, GN Docket No. 13-5, at 5 (filed Feb. 5, 2015) (stating that XO provides EoC in over 565 local serving offices (up from 350 in 2009), serving more than 950,000 buildings); *see also* Reply Comments of CenturyLink, WC Docket No. 05-25, at 14-18 (filed Feb. 19, 2016) ("CenturyLink Feb. 19 Reply Comments").

[7] Letter from Thomas Jones, Counsel for Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.*, at 2 (filed July 14, 2016).

[8] *See, e.g.*, Letter from John T. Nakahata, Counsel to Windstream, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.*, at 3 (filed July 25, 2016) ("Windstream July 25 Letter").

fiber.[9] The record further demonstrates that prices are declining and that newer and more advanced services are being introduced at a breakneck pace.[10] In short, the Commission's longstanding focus on promoting facilities-based competition has been a success.

In response to their dystopian vision, regulatory proponents advance a raft of unworkable and illogical "solutions." Most notably, these parties seek drastic rate reductions, even though they fail entirely to show that ILECs' real unit costs have fallen. In fact (as discussed below), econometric analysis indicates that rates for DSn services would need to be increased significantly to properly account for marketplace changes since 2000. Those seeking regulation also fail to acknowledge the extraordinary diversity in the BDS marketplace, or that much of the BDS marketplace is governed by privately negotiated contracts rather than standardized tariffed terms.[11]

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[9] *See, e.g.*, Comments of Charter Communications, Inc., WC Docket Nos. 16-143 *et al.*, at 3-8 (filed June 28, 2016) ("Charter Comments") (explaining that cable operators are "the drivers of BDS competition"); Comments of Cox Communications, Inc., WC Docket Nos. 16-143 *et al.*, at 5-10 (filed June 28, 2016) ("Cox Comments") (describing Cox's BDS offerings, stating that Cox "has been a leader in providing Ethernet services" and "was the first cable company to be listed on Vertical System Group's first tier of Ethernet providers," and noting that Cox provides services to business customers over its HFC network); Comments of the National Cable & Telecommunications Association, WC Docket Nos. 16-143 *et al.*, at 3-6 (filed June 28, 2016) ("NCTA Comments") (stating that "[c]able company entry into the BDS market has brought all of the benefits of facilities-based competition – lower prices, better services, greater output and faster innovation – that one would expect in a functioning market"); Comcast Comments at 7-20.

[10] *See, e.g.*, Joint Comments of CenturyLink, Inc., Consolidated Communications, FairPoint Communications, Inc. and Frontier Communications Corp., WC Docket Nos. 16-143 *et al.*, at 20-25 (filed June 28, 2016) ("Mid-Size ILEC Comments"); Comcast Comments at 7, 10-13 (stating that cable operators "have pioneered multiple innovations in the BDS marketplace").

[11] In 2011, Verizon noted that it had detariffed or grandfathered all of its previously tariffed enterprise broadband service arrangements, including Ethernet and OCn, citing approximately 3,000 private contracts. *See* Comments of Verizon, WC Docket No. 11-188, at 4-5 (filed Dec. 20, 2011) ("Verizon Reverse Forbearance Comments").

Pleas for expansive regulation are also undercut by the numerous procedural and substantive problems that plague the economic analyses on which they rely. For example, although the expert economist hired by the Wireline Competition Bureau ("Bureau") was asked to assess the BDS market writ large, he instead has unduly narrowed the scope of his review, purporting to exclude the vast majority (but, oddly not all) of the record evidence regarding cable deployments. Peer reviewers, moreover, were simply told that this choice was appropriate rather than being afforded the opportunity to consider that question on their own. Meanwhile, analyses conducted by Commission staff and others are subject to a range of problems that call their findings into question and in many cases wind up, when corrected, demonstrating that ILECs lack market power in the vast majority of markets at issue here.

Also troubling is the apparent indifference shown by regulatory proponents to the substantial investment harms that would result from the rate reductions they seek – particularly in the largely rural communities served by the Mid-Size ILECs, which are those most likely to be subject to draconian rate cuts.[12] Now is not the time to threaten broadband deployment – especially in rural America – by reducing BDS rates below competitive levels and possibly below cost. In particular, the Commission must not attempt to subsidize 5G deployment by wireless behemoths on the backs of rural ILECs and their customers.[13] Indeed, by undercutting

[12] *See generally* Comcast Comments, Ex. A, Declaration of Joseph Farrell (regulation more likely to deter than stimulate investment).

[13] Mid-Size ILEC Comments at 3-4. Other commenters likewise caution against imposing rate regulation in rural areas, given the likely adverse impacts on investment and competition. *See, e.g.*, NCTA Comments at 81-83; Comments of ITTA – The Voice of Mid-Size Communications Companies, WC Docket Nos. 16-143 *et al.*, at 2 (filed June 28, 2016) ("ITTA Comments"); Comments of Mediacom Communications Corporation, WC Docket Nos. 16-143 *et al.*, at 7-9 (filed June 28, 2016) ("Mediacom Comments").

investment in the backhaul facilities at issue, the policies some claim are needed to promote 5G would undermine that very objective.[14]

The recent Verizon-INCOMPAS proposal offers no panacea for the issues presented in this docket.[15] The Commission must recognize that proposal for what it is: Not a compromise forged by adversaries with disparate interests, but joint advocacy by like-minded entities that, following significant changes to Verizon's business model, share an unsurprising desire to pay less and have every reason to advance a common plea in this proceeding. That proposed framework pays lip service to the broad principles set forth in the FNPRM and then proceeds, for the most part, to merely reiterate CLEC demands from the opening submissions and previous round of filings, departing from that platform only to push for results even more extreme than those about which the FNPRM sought comment.[16] In any case, the Verizon-INCOMPAS proposal is substantively flawed in several key respects and does not offer a sound foundation on which to resolve any issue presented in the FNPRM.

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[14] Lightower's unsupported attempt to minimize ILEC investment relative to that of some CLECs is unpersuasive. *See* Comments of Lightower Fiber Networks I, LLC *et al.*, WC Docket Nos. 16-143 *et al.*, at 15 (filed June 28, 2016) ("Lightower Comments"). Putting aside that Lightower does not reveal anything about its methodology (aside from insisting that it relied on publicly available data), its highly generalized claim says nothing about actual investment outlays or the costs each entity faces. The Mid-Size ILECs invest substantially in their networks while incurring particularly high costs in their rural service areas. In any event, Lightower itself argues that the cell site backhaul market is "highly competitive." Letter from Eric J. Branfman, Counsel to Lightower, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.*, at 2 (filed Aug. 3, 2016) ("Lightower Aug. 3 Letter"). The Mid-Size ILECs agree, and have explained that the wireless backhaul market should be exempt from any new regulatory regime or legacy rate regulation. *See* Mid-Size ILEC Comments at 52-57.

[15] *See* Letter from Kathleen Grillo, Verizon, and Chip Pickering, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.* (filed June 27, 2016) ("Verizon-INCOMPAS Letter").

[16] *See infra* Section III.

Ultimately, calls for drastically expanded regulation are premised on flawed economic analyses, faulty legal claims, and empty rhetoric. The Commission may not change regulatory course without substantial evidence that circumstances have changed, taking into account the entire body of evidence available to it.[17] There is no such evidence here. The Commission should consider in particular the lack of evidence of any constraint on service or above-cost pricing, as well as the effect of any new regulation on investment (including from the administrative and other costs associated with excessively prescriptive and granular rules), particularly in rural areas.

In light of the record before it, the Commission should continue its pursuit of policies that drive innovation and investment. These policies have protected business and residential customers alike, and expanded consumer welfare, for a generation. There is no reason in fact or law to abandon them here.

DISCUSSION

Proponents of BDS regulation make three particularly misconceived claims that would be especially damaging if erroneously validated and incorporated into the Commission's new BDS framework: (1) that BDS rates are too high and must be dramatically reduced, (2) that competitive pressure from cable BDS services should be ignored, and (3) that the Verizon-INCOMPAS proposal (which itself incorporates the first two assertions) provides an appropriate framework for resolving this proceeding. Below, the Mid-Size ILECs explain why each of these claims is wrong, and then briefly address several other matters warranting attention.

[17] *See, e.g.*, *BellSouth Telecomms., Inc. v. FCC*, 469 F.3d 1052, 1060 (D.C. Cir. 2006) (agency has "no license to ignore the past when the past relates directly to the question at issue" and when it has at its disposal "data against which to test the proposition").

I. PROPOSALS TO SLASH BDS RATES ARE MISGUIDED AND FLAWED

As the Mid-Size ILECs and others have demonstrated, rates for BDS offerings are just and reasonable, both in price-cap jurisdictions and elsewhere. Indeed, the record shows that rates are falling sharply in the high-bandwidth market segment, which is seeing the greatest surges in demand. In the case of legacy DSn offerings, costs are not falling in ways that justify mandatory rate cuts. Under these circumstances, the imposition of a "catch-up" rate reduction or a going-forward annual productivity factor would be not only unwise but also legally impermissible. As the Supreme Court has emphasized, "the Constitution protects utilities from being limited to a charge for their property serving the public which is so unjust as to be confiscatory."[18] A provider is entitled to recover "the cost of prudently invested capital used to provide the service."[19] In contrast, an approach that "require[s] investors to bear the risk of bad investments at some times while denying them the benefit of good investments at others would raise serious constitutional questions."[20] Thus, the imposition of rates that failed to compensate

[18] *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989) (internal quotation marks omitted), citing *Covington & Lexington Turnpike Road Co. v. Sandford*, 164 U.S. 578, 597 (1896); *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 585 (1942); *FPC v. Texaco Inc.*, 417 U.S. 380, 391-92 (1974). *See also FCC v. Florida Power Corp.*, 480 U.S. 245, 253 (1987) ("Such regulation of maximum rates or prices may, consistently with the Constitution, limit stringently the return recovered on investment, for investors' interests provide only one of the variables in the constitutional calculus of reasonableness. … So long as the rates set are not confiscatory, the Fifth Amendment does not bar their imposition.") (citations and internal quotation marks omitted).

[19] *Verizon Commc'ns, Inc. v. FCC*, 535 U.S. 467, 485-86 (2002); *see generally Illinois Bell Tel. Co. v. FCC*, 988 F.2d 1254 (D.C. Cir. 1993) (discussing traditional cost-of-service ratemaking in detail).

[20] *Dusquesne*, 488 U.S. at 315.

regulated providers for their reasonable costs would be not only disastrous for investment in rural broadband, but also flatly unlawful.

A. BDS Rates are Competitive.

Many regulatory proponents presume – and repeatedly insist in their comments – that BDS rates are supra-competitive.[21] These claims ignore record evidence that reveals intense competition, which continues to engender innovation and falling prices in the BDS marketplace.

The Mid-Size ILECs and others have shown that the 2013 data (though dated and under-representative of competitors' market presence) shows virtually ubiquitous competition in areas with BDS demand.[22] As Drs. Mark Israel, Daniel Rubinfeld, and Glenn Woroch previously demonstrated, this data shows that competitors had, as of 2013, deployed high-capacity facilities in virtually every census block with special access demand.[23] In response to the FNPRM, Drs. Israel, Rubinfeld, and Woroch also confirmed that, in 2013, virtually all buildings with demand for BDS were located within a half mile of competitive facilities,[24] which is a key benchmark for the Commission's geographic market findings.[25] Furthermore, data from the USTelecom survey indicate that there has been a significant amount of churn and switching, especially in the last

[21] *See, e.g.*, Windstream Comments at 3; Sprint Comments at 19; Comments of the Ad Hoc Telecommunications Users Committee, WC Docket No. 05-25, at 6-7 (filed June 28, 2016, re-filed in WC Docket No. 16-143 July 13, 2016) ("Ad Hoc Telecommunications Users Comments"); Public Knowledge Comments at 2.

[22] Mid-Size ILEC Comments at 20; *see also, e.g.*, Comments of AT&T, Inc., WC Docket Nos. 16-143 *et al.*, at 11-17 (filed June 28, 2016) ("AT&T Comments").

[23] Initial Econometric Analysis at Table C-PF2.

[24] Mark Israel, Daniel Rubinfeld, and Glenn Woroch, Analysis of the Regressions and Other Data Relied Upon in the Business Data Services NPRM and a Proposed Competitive Market Test, Second White Paper, at 2 (June 28, 2016) ("Second IRW White Paper").

[25] *See* FNPRM ¶ 161.

two years.[26] When this survey is considered along with other evidence in the record,[27] including major cable providers' acknowledgements that a huge proportion of their headends are Metro Ethernet-capable (and thus can be upgraded to provide fiber-based services as demand arises), it is readily apparent that the marketplace is substantially *more* competitive than reflected in the original 2013 data set.[28]

Unsurprisingly, given nearly ubiquitous competition, the BDS marketplace is characterized by rapidly falling prices. As the Mid-Size ILECs demonstrated in their comments, light-touch regulation and growing demand for high-bandwidth services has fostered the aggressive deployment of BDS services by competitive providers, which has led to consistently falling prices in the Ethernet services market.[29] The initial comments confirm these competitive realities. Cox observes that "competition is already driving Ethernet prices down so precipitously" that it is "finding it harder to justify the costs of new fiber deployment."[30] On behalf of Comcast, Professor John Mayo concludes that "prices for BDS have been consistently falling, and Ethernet-based services that are readily available in the marketplace provide

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[26] USTelecom, *Survey of Small and Medium Business Internet and Data Networking Service Users: Methodology, Results, and Implications, June 2016*, at 5, 6 (Aug. 8, 2016) ("USTelecom Survey"), attached to Letter from Diane Griffin Holland, Vice President, Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.* (filed Aug. 9, 2016).

[27] *See, e.g.*, Comcast Comments, Mayo Decl. ¶¶ 31-45 (describing changes in the BDS marketplace since 2013).

[28] *See* Comments of the United States Telecom Association, WC Docket Nos. 16-143 *et al.*, at 14 (filed June 28, 2016) ("USTelecom Comments") (finding that approximately one-fifth of Business Internet Access Service and Data Networking Service customers have switched providers over the last two years).

[29] Mid-Size ILEC Comments at 24-25.

[30] Cox Comments at 2.

powerful constraints on the ability of any provider to raise prices in an anticompetitive fashion."[31] The American Cable Association states that competitive providers "have invested and are investing billions of dollars in new facilities to provide high-performance BDS at prices significantly below those of the [ILECs] and with innovative functionalities and assured reliability."[32] Charter observes that significant fiber investments by cable providers have "contributed to broadly declining prices for BDS."[33] By all accounts, these trends are expected to continue for the foreseeable future.[34]

Less obvious (but at least as important) is the fact that BDS prices are declining *even as ILEC unit costs are increasing*. As the Mid-Size ILECs explained in their opening comments (and address in more detail below), customer utilization of ILEC plant is still rapidly eroding, meaning that ILECs must amortize shared costs (*e.g.*, the capacity of a loop that serves a commercial building or mobile antenna site) among fewer customers than before.[35] Thus, unit costs would be rising even if total costs were holding steady, or even falling some. But, in truth, costs for the key inputs associated with ILEC BDS – including labor and rights-of-way – have risen at a rate above the level of inflation over the past decade.[36]

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[31] Comcast Comments, Mayo Decl. ¶ 19.

[32] Comments of American Cable Association, WC Docket Nos. 16-143 *et al.*, at 2 (filed June 28, 2016).

[33] Charter Comments at 2.

[34] *See, e.g.*, IDC Market Analysis: U.S. Carrier Ethernet Services 2015 – 2019 Forecast at 16.

[35] Mid-Size ILEC Comments at 70.

[36] *Id.* at 71-72.

Moreover, the notion that ILECs are collecting massive revenues through "supra-competitive prices" on BDS services is simply untrue.[37] For instance, the Mid-Size ILECs have shown that for higher-capacity connections – the services to which BDS customers are migrating *en masse* – CLECs actually capture far *more* revenues than ILECs. In fact, Dr. Rysman has found that competitive providers "draw substantially more revenue than ILECs from packet-based services, almost 2.5 times more."[38] In his assessment of Dr. Rysman's report, Professor Mayo notes that competitive providers, which had already captured more than 50 percent of the total revenue in the BDS marketplace by 2013, increased their BDS revenues by an additional 46 percent between 2013 and 2015.[39] According to Professor Mayo, the fact that competitive providers have "shown the critical competitive ability to grow significantly and capture market share" also means that they would be able to meet any ILEC attempt to raise prices to supra-competitive levels with less-expensive alternatives, capturing even greater market share.[40]

Econometric analyses submitted into the docket confirm that ILEC rates are not supra-competitive. To the extent the regression analyses conducted by Dr. Rysman and others show anything, it is that there is very little difference between rates in "competitive" and "non-competitive" areas. As the Mid-Size ILECs have pointed out,[41] the Rysman Report found that the presence of competition for DS1 lines at the census-tract level is associated with a mere 3.2

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[37] Comments of INCOMPAS, WC Docket Nos. 16-143 *et al.*, at 4 (filed June 28, 2016) ("INCOMPAS Comments").

[38] FNPRM, App. B, Marc Rysman, "Empirics of Business Data Services," White Paper, Apr. 2016, at 204-05 ("Rysman Report").

[39] Comcast Comments, Mayo Decl. ¶ 52.

[40] *Id.*

[41] Mid-Size ILEC Comments at 8-11; *see also* AT&T Comments at 3, 22.

percent decline in prices – which Dr. Rysman conceded was "not especially large by the standards of competition analysis"[42] – and a 10.9 percent differential for DS3 services – which, while larger, equals just 1.0 percent on an annualized basis when taking into account the 11 years since regulated special access rates were effectively frozen.[43] The Mid-Size ILECs further have explained that these purported price differentials likely overstate the extent to which rates in non-competitive areas exceed those in competitive areas, since non-competitive geographic markets are likely to be the areas with the highest costs, and those costs are the most likely cause of higher rates.[44] For high-capacity Ethernet circuits, Dr. Rysman found that "the effect for high-bandwidth lines is statistically insignificantly different from zero for census tract fixed effects and is positive for county fixed effects."[45] Thus, even if Dr. Rysman's regression analyses as they stand are to be relied upon, they require the Commission to reject claims of market power.[46]

B. Further Econometric Analysis Demonstrates the Impropriety of Adopting Either a Positive X-Factor Or a One-Time "Catch Up" Rate Cut.

Proposals to reduce BDS rates are flawed as a matter of econometrics. As Drs. Mark Schankerman and Pierre Régibeau explain in an analysis filed today,[47] an appropriately

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[42] Rysman Report at 218.

[43] Mid-Size ILEC Comments at 9-10.

[44] *Id.* at 10.

[45] Rysman Report at 218.

[46] Of course, if there were a geographic market with BDS demand and no actual or potential competition, a properly conceived price cap for TDM-based services could be appropriate to help ensure that rates remained just and reasonable. As discussed below, however, the Commission should reject features of price cap regulation that would undermine and distort the market – including the application of an excessively high productivity factor – and embrace a model that accounts for the challenges of providing BDS services in rural areas.

[47] *See* Mark Schankerman and Pierre Régibeau, *Response to the FCC Further Notice: Regulation of DS1 and DS3 Services*, attached to Letter from Russell P. Hanser, Counsel to CenturyLink, to

conceived evaluation of costs that accounted for all relevant factors would warrant a significant *increase* in current DS1 and DS3 rates.[48] Moreover, nothing about the regression analyses prepared by Dr. Rysman, Commission staff, or others refutes this conclusion.

Drs. Schankerman and Régibeau make several findings relevant to the productivity analysis at issue here. First, they explain that, of the methodologies that the FNPRM contemplates as potential bases for calculating a rate reset, "the approach based on [United States] KLEMS data is the only one which is both sufficiently reliable and internally consistent."[49] The KLEMS approach is based on readily available data, and – unlike model-based approaches – does not rely on estimates that can vary wildly based on changing underlying assumptions.[50]

Drs. Schankerman and Régibeau also note that it would be inappropriate to base rate cuts for legacy DSn business data offerings on overall productivity changes throughout the

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Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.* (filed Aug. 9, 2016) ("Schankerman/Régibeau Declaration").

[48] *See, e.g.*, *id.* at ¶ 8 (noting that a KLEMS-based approach accounting for changes in costs since 2000 would warrant a rate increase of 6.45 percent).

[49] *Id.* at ¶ 6.

[50] *Id.* at ¶ 51 ("[W]hile the forward-looking nature of the cost estimates it generates might at first appear to be a virtue in the price cap context, it is not. Quite the contrary, the uncertainty and sensitivity of the estimates to the underlying assumptions and modelling structure make it unsuitable for the purpose. In our view, models like the CACM offer the illusion of precision, but they are underpinned by a complicated simulation structure and set of assumptions that are never subject to rigorous empirical validation. While companies do use a variety of cost simulation models to help inform their corporate planning decisions, adopting such a 'predictive' model to set the absolutely critical X-factor for a potential reset, and price caps going forward, would be very problematic…."). Support for a KLEMS approach does not, of course, indicate support for use of *EU* KLEMS data. As Drs. Schankerman and Régibeau explain, use of the European Union version of KLEMS would be inappropriate for multiple reasons, and would roughly double the true total factor productivity gains. *Id.* at ¶¶ 56-68.

telecommunications industry. This is so because productivity growth is not evenly distributed throughout the sector. Rather, mature and declining technologies such as DS1 and DS3 services are likely to experience much lower efficiency gains than newer and more innovative products (such as fiber-based Ethernet offerings and information services). Application of an industry-wide factor therefore would badly overstate expected efficiency gains, leading to rates that do not allow appropriate cost recovery. Instead, "the sector should be defined (among other potential constraints) narrowly enough to face input prices and productivity changes that are similar to those influencing the costs of the regulated services (in this case, these are DS1 and DS3, which are only a subset of the telecommunications sector)."[51]

In addition, Drs. Schankerman and Régibeau emphasize, any productivity analysis must account for lost economies of scale resulting from declining demand for ILEC BDS services. The Mid-Size ILECs previously noted that the rise of competitive BDS offerings has naturally coincided with a reduction in utilization of ILEC plant, meaning that incumbents must amortize the costs of provisioning BDS among fewer customers, and that unit costs would not necessarily be falling even if total costs were.[52] As Drs. Schankerman and Régibeau elaborate:

> [B]ecause ILECs have seen their relative position in the supply of DS1 and DS3 services using legacy TDM technology erode over time due to competition from new, superior technologies and because these services are characterised by economies of scale, traditional computations are likely to overstate the size of the adjustment required in the level of regulated price. We demonstrate that the magnitude of this bias is material, implying an additional upward adjustment of the regulated price by between 0.36% and 0.81%. This reinforces our conclusion that the new

[51] *Id.* at ¶ 26.

[52] *See* Mid-Size ILEC Comments at 70-71.

> regulatory regime does not require any downward adjustment at all in the current level of regulated prices.[53]

Finally, Drs. Schankerman and Régibeau explain, it would be appropriate to base any evaluation of evolving costs on changes in rates since 2000, not 2005, because the productivity factors that were used for the period between 2000 and 2004 were indisputably excessive, such that rates at the time the X-factor was frozen were themselves too low. Put differently, the adjustments made to price caps during that period "were more drastic than needed,"[54] and adjustments that take for granted the propriety of 2005's rates would lead to rates that were too low to allow for proper cost recovery. As such, "if the FCC decides to adopt a reset to correct the distortions introduced throughout this period, the regulated price for the reset should quite unambiguously be increased."[55] Specifically, "the actual cumulative reduction under the CALLS Order amounted to 12.7%, while the reduction called for by the actual productivity gains and input price changes is only 6.6%."[56] In all, accounting for this and other matters discussed above, Drs. Schankerman and Régibeau recommend a one-time rate increase of between 6.45 and 17.5 percent.[57]

The regression analyses prepared by Dr. Rysman, Commission staff, and economists hired by those seeking regulatory advantage here do not refute this analysis. Today, Drs. Israel,

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[53] Schankerman/Régibeau Declaration at ¶ 10.

[54] *Id.* at ¶ 72. Drs. Schankerman and Régibeau also note that "[t]hose prices would also need to be raised if we extend the period even further back to 1997, the year in which the FCC imposed its 6.5% X-factor, which a court later invalidated and which is, in fact, demonstrably much larger than actual productivity growth over that period." *Id.* at ¶ 7.

[55] *Id.* at ¶ 73.

[56] *Id.*

[57] *See id.* at ¶¶ 11, 125.

Rubinfeld, and Woroch file their Third White Paper in this docket, which highlights four key substantive shortcomings in these analyses.[58] First, Dr. Rysman's regressions rely on flawed and incorrect pricing data.[59] Specifically, Dr. Rysman relies on pre-2013 information that, by definition, cannot be used to determine competitive conditions *in* 2013 (in part because this would result in the inclusion of multi-year term deals reached prior to 2013).[60] Additionally, Dr. Rysman's regressions rely on pricing data from contracts covering multiple circuit locations; because these rates are based on an amalgam of heterogeneous markets, prices in each contract may reflect prevalent competitive conditions elsewhere.[61] As a result, the regressions *cannot* be assumed to respond to only the competitive conditions in a single given location. Moreover, the Third IRW White Paper – as well as the peer reviewers[62] – flag that Dr. Rysman's regressions are based on data undermined by fundamental systematic errors, including the mispricing of DS1s and the exclusion of lower-priced circuits that rely on multiplexing.[63]

Second, as a result of their reliance on an incorrect estimator of the regression coefficients' standard errors, Dr. Rysman's regressions inaccurately measure statistical significance.[64] The "robust standard" estimator used by Dr. Rysman assumes that no correlation

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[58] Mark Israel, Daniel Rubinfeld, and Glenn Woroch, Analysis of the Regressions and Other Data Relied Upon in the Business Data Services FNPRM and a Proposed Competitive Market Test, Third White Paper (filed Aug. 9, 2016) ("Third IRW White Paper").

[59] *Id.* at 13-14.

[60] *Id.* at 13.

[61] *Id.* at 14.

[62] *See* Andrew Sweeting, Review of Dr. Rysman's "Empirics of Business Data Services" White Paper ¶ 9 (Apr. 26, 2016) ("Sweeting Peer Review").

[63] Third IRW White Paper at 14.

[64] *Id.* at 14-16.

exists across observations in the data; this assumption is fundamentally flawed, because the price and number of competitors among nearby locations is likely to be highly correlated (due, for example, to higher costs in a particular geographic unit).[65] This high correlation necessitates that standard errors account for "clustering."[66] The Rysman Report fails to do so, and as a result, overstates the statistical significance of its regressions.[67]

Third, Dr. Rysman's regressions are rendered inaccurate by their failure to account for different regulatory regimes.[68] The Rysman Report did not assess the relationship between ILEC DS1 and DS3 prices separately for price cap, Phase I, and Phase II areas; as a result, it draws inappropriate conclusions about pricing that can be traced back to the regulatory regime, rather than to competition.[69] Accurate regressions – *i.e.*, separate regressions accounting for the three regulatory areas – disprove claims of a causal relationship between (1) ILEC DS1 and DS3 prices, and (2) the number of competitors.[70]

Finally, Dr. Rysman's regressions suffer from an inherent and unfixable "endogeneity" problem – rather than showing that a small number of competitors leads to higher rates, they may well show simply that an unrelated factor (such as an unfriendly topography) leads to high costs, which in turn leads to both high rates and fewer competitors.[71] To isolate the effects of competition on prices, the Rysman Report would have needed to show that, *holding market*

[65] *Id.* at 15-16.

[66] *Id.*

[67] *Id.*

[68] *Id.* at 19-20.

[69] *Id.*

[70] *Id.*

[71] *Id.* at 16-19.

conditions constant, the addition of a competitor reduces prices.[72] As a methodological matter, Dr. Rysman's regressions cannot demonstrate this, which is why the Rysman Report attempts instead to rely on "fixed effects" techniques.[73] However, this approach does not ameliorate the endogeneity problem. As the Third IRW White Paper explains, the fixed effects approach tends to filter both the to-be-measured effects, and endogenous effects alike; it also does not filter out endogenous variation within a chosen geographic area.[74] Therefore, if there are different economic conditions *within* a census tract that affects both ILEC prices and competitive entry, the census tract fixed effects regression cannot take into account those variations.[75] As the Third IRW White Paper demonstrates, this is "not a hypothetical problem."[76] These points are confirmed by the peer review of the Rysman Report conducted by Dr. Andrew Sweeting, which recognizes "the possible problem that there is some unobserved factor that affects prices and is correlated with competition that might lead to a spurious relationship" in the regression results.[77] While Dr. Rysman has taken steps to address this concern, they "do[] not remove the problem entirely."[78] Thus, Dr. Sweeting concludes, "[T]here are scenarios under which [Dr. Rysman's] conclusions might be invalid, or at least limited to small sub-groups of consumers. These

[72] *Id.*

[73] *Id.* at 17.

[74] *Id.* at 17-18.

[75] *Id.*

[76] *Id.* at 17-19.

[77] Sweeting Peer Review ¶ 19.

[78] *Id.*

scenarios include unobserved heterogeneity across geographical areas that [are] correlated with variation in competition."[79]

Nor can the Commission Staff's regressions be used to support adopting either a positive X-Factor or a one-time "catch up" rate cut. Like Dr. Rysman's evaluations, the Commission Staff's regressions are much more likely to reflect pricing responses to unobserved factors (such as differing topographical features that lead to higher costs, concomitantly higher rates, and a reduction in the number of providers offering service) rather than the causal effects of competition.[80] Even apart from this problem, the Commission Staff's regressions still fail to establish market power, and thus cannot support the proposed regulations.[81] Finally, neither the Baker regressions nor the Zarakas and Verlinda regressions offer the Commission the necessary support to justify reducing BDS rates. The Baker regressions not only generate nonsensical results,[82] they also suffer from all the same shortcomings as the Rysman regressions, outlined above.[83] The Zarakas and Verlinda regressions similarly provide no support for the

[79] *Id.* ¶ 27.

[80] Third IRW White Paper at 20-23.

[81] *Id.* at 23-26.

[82] *Id.* at 27 (citing Declaration of Jonathan B. Baker on Competition and Market Power in the Provision of Business Data Services, WC Docket Nos. 16-143 *et al.* (originally filed June 28, 2016, re-filed July 14, 2016), Table 1, Regression Models (1) and (3), which claim (i) that there is no effect on the ILEC when there are one, two, or three competitors in the same block, but that there *is* an impact on ILECs when there are four or more competitors in the same block, and (ii) that having one or three rivals connected to the same building has a statistically significant impact on ILEC pricing, but not two or four or more rivals).

[83] *Id.* at 28 (citing Sprint Comments, Ex. D, Declaration of William P. Zarakas and Jeremy A. Verlinda).

Commission's thesis that ILECs exercise market power for OC-3 services.[84] While Mr. Zarakas and Dr. Verlinda make several claims as to the statistical significance of their result, replicating their analysis with necessary clustered standard errors obviate these claims.[85]

C. The Commission Should Account for the Decline of DSn Services in Setting Any New X-Factor for Those Services and Weighing the Error Costs of Intervention.

As discussed, DS1 and DS3 services have reached their twilight years and are rapidly giving way to more advanced Ethernet services. The approaching obsolescence of these DSn services presents several insurmountable legal obstacles to the Commission's proposal to ratchet down the rates for these services, either through prospective X-factor adjustments or retrospective rate reinitialization.

First, the ILEC services on which the Commission should focus in determining whether LECs "outperform economy-wide productivity gains"[86] are not all LEC services in general, or even all LEC BDS services, but LEC DSn services in particular, which are the primary remaining focus of price cap regulation today. The objective of price cap regulation is to allow ratepayers to capture a LEC's expected efficiency gains in the same way that inter-firm rivalry would force the LEC to pass those gains through to consumers in a competitive market.[87] The FNPRM appears to assume that, for these purposes, the efficiency gains for each category of ILEC BDS services have been, and can be expected to remain, more or less equivalent.[88] But

[84] *Id.* at 30.

[85] *Id.*

[86] FNPRM ¶ 357.

[87] *Id.* ¶¶ 347, 358; *see also Illinois Bell*, 988 F.2d at 177-79.

[88] *See* FNPRM ¶¶ 356-415.

this is not true, just as it would not be accurate to assume that IBM has achieved – and will continue to achieve – equivalent productivity gains for typewriters as for high-end computers. No rational company can be expected to devote as much investment and attention to improving the productivity of declining legacy products as to enhancing next-generation replacement products.[89]

The same is true here. Any provider of BDS services must stay ahead of the technological curve in the provision of advanced Ethernet services, and its network engineers will continue focusing on that challenge. Meanwhile, no one will be earning their academic or professional stripes for discovering revolutionary new approaches to providing DSn services; those services reached technological maturity decades ago.[90] Just as important, whereas Ethernet services may sometimes benefit from increasing demand and scale economies, DSn services will be provided to fewer and fewer customers and are thus subject to ever-lower scale economies

[89] There is overwhelming academic and business management consensus that such over-focus on legacy products is not only suboptimal, but likely to result in a company's eventual displacement. *See, e.g.*, Clayton Christensen, THE INNOVATOR'S DILEMMA 29-61 (3d ed. 2016) (identifying misallocation of resources into legacy products as one of the major "drivers of failure" that results in firms' collapse); *see also* W. Chan Kim & Renée Mauborgne, *Blue Ocean Strategy*, HARV. BUS. REV., Oct. 2004 (arguing in part that focusing on legacy products is "no way to sustain high performance"). Indeed, the failure of a wide range of recent firms due to their over-attention to declining legacy products is a telling caution against regulation that would effectively *force* such a course of action. *See, e.g.*, *Verizon Calls Time on Yahoo by Buying It*, THE ECONOMIST (July 25, 2016); Ernest Scheyder, *Focus on Past Glory Kept Kodak from Digital Win*, REUTERS (Jan. 19, 2012), http://www.reuters.com/article/us-kodak-bankruptcy-idUSTRE80I1N020120119.

[90] The technological developments cited by the FNPRM (at ¶ 366) as a basis for raising the X-factor – such as the deployment of softswitches or all-fiber loops – have little, if anything, to do with DSn services. As AT&T explains, these developments instead facilitate the newer generation of Ethernet services. *See, e.g.*, AT&T Comments at 54-55.

and ever-higher unit costs.[91] In short, the Commission cannot reasonably subject DSn services – the principal offerings now subject to current price cap regulation – to any X-factor adjustment or reinitialization on the basis of estimates about productivity enhancements for all ILEC services or all ILEC BDS services. Instead, the Commission must account for the special circumstances that make DSn services less susceptible to productivity enhancement than other BDS services. And those circumstances include not only the technological maturity (indeed, near-obsolescence) of DSn services, but also the ever-diminishing demand for them and the corresponding reductions in scale economies.

If the Commission takes these circumstances into account, it will conclude that the existing X-factor has been set artificially high as a means of pricing these services. That conclusion follows logically from the KLEMS data compiled by the federal government. Those data show that, from 2005 to 2013, the rate of increased productivity in the telecommunications industry as a whole (*i.e.*, including the offerings most amenable to technology-driven efficiency gains) approximated the rate of inflation and thus also approximated the existing X-factor, which is held equal to inflation.[92] Because DSn services are declining legacy services and thus less susceptible to productivity enhancements than telecommunications services in general, it follows that they are properly subject to a lower X-factor. Indeed, DSn services might well underperform *economy-wide* productivity gains, and thus the "right" X-factor for those services could easily be a negative number. In all events, there is certainly no basis for concluding that

[91] *See* Mid-Size ILEC Comments at 70-71; Schankerman/Régibeau Declaration at ¶¶ 76-86. Of course, even if the demand for Ethernet services rises in particular areas, increased competition to serve that demand may well reduce the scale economies of any given LEC. *See* Mid-Size ILEC Comments at 70-71.

[92] *See* FNPRM ¶ 407, Tab. 7.

these legacy services are *more* susceptible to productivity gains than the modern tech-dominated economy as a whole. Thus, even a conservative estimate would place the X-factor at zero, which would hold DSn rates constant in real terms, whereas the current regime assigns the X-factor a positive value equal to the rate of inflation and thus persistently lowers those rates in real terms.

Second, just as it would be inappropriate to base an X-factor for DSn services on productivity enhancements for cutting-edge Ethernet services, it would also be inappropriate to base a prospective X-factor on stale productivity data from long-past periods in which DSn services were considered state of the art. Again, the purpose of price cap regulation is to make providers share their expected efficiency gains in the form of lower rates, much as they would have to pass through to ratepayers those same cost savings in a competitive market.[93] Here, there is no reason to conclude that ILECs can realistically achieve the same rate of efficiency improvements for DSn services today that they achieved when those services dominated the BDS landscape in the early years of price cap implementation (1997-2005).[94] Indeed, it is far more reasonable to draw the opposite conclusion because, as discussed, demand for DSn services

[93] *Id.* ¶ 347; *see also Illinois Bell*, 988 F.2d at 177-79. Thus, a properly designed X-Factor gives a provider both the incentive to make reasonably achievable efficiency improvements and the opportunity to earn a competitive rate of return if it does so. *See* Schankerman/Régibeau Declaration at ¶¶ 4, 21; *see also Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 365 (1986) (regulated entity entitled to recover its costs in proximity to the period in which it incurs them).

[94] For example, the KLEMS data from the initial 1997-2005 period reflect the substantial cost reductions that were achieved during a period in which there was increased demand for TDM services and substantial innovation in that area. Schankerman/Régibeau Declaration at ¶ 7-9; *see also Policy and Rules Concerning Rates for Dominant Carriers*, Second Report and Order, 5 FCC Rcd 6786, 6788 ¶ 15 (1990) (describing "DS1 and DS3 services" as "a large and rapidly growing portion of the LECs' special access business").

is falling dramatically (thus reducing economies of scale), such that unit costs would be rising even if overall costs were falling.[95]

Finally, any uncertainty about the proper rate level for DSn services should be resolved against additional regulatory intervention because the error costs of setting rates too low for these legacy services would far exceed the error costs of setting rates too high. The market can be expected to correct any excessive prices for such services because such prices will only speed up the market's technological migration towards Ethernet alternatives.[96] In contrast, the market cannot correct the market distortions this Commission would cause if it sets prices for these services too low. Instead, such artificially low prices would merely prop up demand for these services at the *expense* of the very technological migration the Commission avowedly launched this proceeding to accelerate.[97] And such prices would thereby subvert the Commission's core responsibility under Section 706 to "encourage the deployment … of advanced telecommunications capability" rather than impede it.[98]

In short, the Commission would unlawfully harm rather than promote consumer welfare if it resolved doubts in favor of greater intervention; as Judge Easterbrook has observed, "errors

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[95] Schankerman/Régibeau Declaration at ¶ 12.

[96] *See, e.g.*, Frank Easterbrook, *Limits of Antitrust*, 63 TEX. L. REV. 1, 2 (1984) ("Monopoly is self-destructive. Monopoly prices eventually attract entry.").

[97] *See, e.g.*, FNPRM ¶ 7 (explaining that "the future is in IP-based, packet-switched communications," not DSn services, and committing to "encourage the migration to new technologies" and expedite "the transition to more desirable IP-based products").

[98] 47 U.S.C. § 1302(a) (codifying Section 706(a) of the Telecommunications Act of 1996); *accord* 47 U.S.C. § 1302(b) (directing Commission "to accelerate deployment of such capability"); *see United States Telecom Ass'n v. FCC*, 359 F.3d 554, 579-582 (D.C. Cir. 2004) (affirming use of Section 706(a) to remove investment-chilling regulation).

that tolerate baleful practices are self-correcting, while erroneous condemnations are not."[99] The Commission must take that concern into account in resolving any disputed issue in this proceeding because, under the APA, reasoned decisionmaking "requires paying attention to the advantages *and* the disadvantages of agency decisions."[100]

D. The Commission Should Avoid Conceptual Inconsistency In Its Choice of Inputs for Any X-Factor/Reinitialization Analysis.

The D.C. Circuit has repeatedly held that an agency order is arbitrary and capricious if its underlying rationale "is internally inconsistent."[101] Here, in at least two respects, the FNPRM proposes regulatory measures that would unlawfully rest on mutually inconsistent premises.

First, the FNRPM improperly proposes to mix and match *one* time period for determining productivity gains and a *different* time period over which the resulting X-factor is applied for purposes of reinitializing rates. Specifically, it appears to contemplate (1) calculating an X-factor using data from 1997 to 2013,[102] while nonetheless (2) assuming the validity of pre-2005 rates for purposes of reinitialization and thus applying the resulting X-factor only to the 2005-

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[99] Easterbrook, *Limits of Antitrust*, at 3; *see also* Thomas A. Lambert & Joshua D. Wright, *Antitrust (Over-?) Confidence*, 20 LOY. CONSUMER L. REV. 219, 225-26 (2008) (the "social costs" of erroneous market intervention "are likely to be significantly larger than the costs" of erroneous *non*-intervention).

[100] *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (emphasis in original).

[101] *See, e.g., Business Roundtable v. SEC*, 647 F.3d 1144, 1153 (D.C. Cir. 2011) ("[T]he Commission's discussion [of the basis for the final rule] is internally inconsistent and therefore arbitrary."); *General Chem. Corp. v. United States*, 817 F.2d 844, 857 (D.C. Cir. 1987) ("Because the ICC's analysis of geographic competition is internally inconsistent and inadequately explained, we find its [ruling] … to be arbitrary and capricious and not supported by substantial evidence on the record considered as a whole.").

[102] The FNPRM specifies that data range for both KLEMS and CACM data. Even independent of this date-range issue, however, the CACM data are not designed for, and cannot reasonably be used in, any determination of an appropriate X-factor. *See supra* at 14; *see also* Schankerman/Régibeau Declaration at ¶¶ 50-54.

2013 period.[103] That temporal disconnect would generate unreasonably low rates because, under this approach, the Commission would do nothing to correct for the unlawfully high X-factors that applied from 1997 to 2003 (generally 6.5 percent).[104] The D.C. Circuit found in 1999 that the Commission had failed to justify such high X-factors, and subsequent developments confirm that those X-factors were indeed blatantly excessive. As the FNPRM recognizes, the federal government's own KLEMS data support an X-factor for 1997-2003 of 3.21 percent – *less than half* of the 6.5 percent X-factor that actually applied.[105] Indeed, no matter what timeframe the Commission chooses for assessing productivity enhancements, any reinitialization decision must account for the artificially low price levels attributable to that judicially invalidated and demonstrably excessive 6.5 percent X-factor.

Second, the Commission cannot rely on the Rysman Report to identify areas that are subject to price cap regulation but then ignore that study when it comes to setting the X-factor itself. Where LECs face effective competition, they must operate efficiently and pass along resulting productivity gains to consumers or lose customers to rival providers. Even taken at face value, Dr. Rysman's study shows, at most, that price cap LECs' rates in non-competitive areas are only slightly higher than in competitive areas.[106] As explained elsewhere, Dr. Rysman's regressions are flawed in numerous respects and cannot reasonably be used to assess

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[103] *See* FNPRM ¶¶ 401-03, 406-15.

[104] *See United States Tel. Ass'n v. FCC*, 188 F.3d 521 (D.C. Cir. 1999) (invalidating 6.5 percent X-factor and remanding); *Access Charge Reform*, Sixth Report, 15 FCC Rcd 12962, 13025 ¶ 149 (2000) ("*CALLS Order*") (responding to remand but, with one temporary exception, maintaining the invalidated X-factor through 2003); *see generally* FNPRM ¶¶ 359-60.

[105] *See* FNPRM ¶ 407, Tab. 7.

[106] *See* Mid-Size ILEC Comments at 8-11.

the extent of competition or its price effects in particular circumstances. But if the Commission does (erroneously) accept Dr. Rysman's analysis when determining where price cap regulation should apply, it cannot rationally sweep the implications of that analysis under the rug when determining the price cap itself. As AT&T explains, Dr. Rysman's regressions "at best … discerned a small 3.2 percent divergence in DS1 pricing," and thus "Professor Rysman's analysis (even if it could be credited) is conclusive that DSn productivity has not exceeded national productivity in recent years," given that "GDP-PI incorporates national productivity gains" already.[107]

II. COMPETITIVE PRESSURE FROM CABLE-PROVIDED BDS SERVICES IS UNDENIABLE AND DIRECTLY RELEVANT

A. The Commission Must Account for Recent Revelations Regarding HFC Buildout and Metro Ethernet-Capable Headends.

As the Mid-Size ILECs and others underscored previously,[108] any regulatory regime the Commission adopts here must account for recent revelations regarding cable providers' deployment of Ethernet-capable facilities. The Commission, the Bureau, and cable providers have all recognized that these services are competing against ILEC BDS offerings, and that Metro Ethernet-enabled headends allow for the ready deployment of fiber.[109] Even Dr. Rysman,

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[107] AT&T Comments at 54.

[108] Mid-Size ILEC Comments at 35-44; *see also, e.g.*, AT&T Comments at 14-16; ITTA Comments at 3-4.

[109] The issue of whether or not these services are equivalent to or competitive with other services, such that they must be accounted for in the Commission's competitive test, is independent from the question of their regulatory classification, a question that instead turns on the circumstances of how they are offered. In this respect, the FNPRM's statement that "[a]ll BDS providers are common carriers," FNPRM ¶ 312, is potentially overbroad and clearly unsupported, as it does not take into account any facts regarding how BDS providers and

who focuses almost exclusively on fiber-based service, acknowledges that HFC plant can be, and is, used to provision BDS. The Commission must reject efforts to diminish or ignore entirely this important source of competition.

As an initial matter, the Commission must account for the HFC-based offerings that cable providers are currently marketing – successfully – as substitutes for ILEC BDS. While cable providers suggest in this docket that their HFC-based offerings are not substitutes for ILEC BDS services, their concrete representations to investors, potential customers, and even the Commission show otherwise. These providers are using their existing plant to supply real competition to ILEC BDS offerings, and are both willing and able to extend fiber to interested customers as the marketplace requires.[110] Comcast, for example, highlights its "broadly available" BDS offerings, explaining that its dedicated Internet access service is "easily scalable and can grow alongside a business without requiring the addition of new lines" and "typically

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customers perceive individual offerings. Nevertheless, whether or not a particular BDS service is provided on a private carriage basis, its competitive effect in the market remains relevant.

[110] *See, e.g.*, Press Release, Comcast, *Comcast Business Announces New Unit Targeting Fortune 1000 Enterprises* (Sept. 16, 2015), http://corporate.comcast.com/news-information/news-feed/comcast-business-announces-new-unit-targeting-fortune-1000-enterprises (reporting Comcast's new business unit specifically marketing and selling enterprise services to Fortune 1000 companies nationwide); Thomson Reuters StreetEvents, *CMCSA – Q3 2015 Comcast Corp. Earnings Call*, Edited Transcript, at 9 (Oct. 27, 2015) (Neil Smit, President & CEO of Comcast Cable Communications, stating that Comcast is targeting "large enterprises that have 300 locations or more," and that the company provides managed services "to more than 20 large enterprise companies and ha[s] already signed multiple eight figure deals."); Charter, Spectrum Business, *Carrier Solutions*, https://business.spectrum.com/content/carrier (last visited June 16, 2016) (explaining that Charter had more than 10,000 fiber-lit buildings in early 2014; it currently has 12,000+ fiber lit buildings and 3,800 lit cell towers); Sean Buckley, *U.S. Fiber Penetration Reaches 39.3% of Buildings, Says VSG*, FierceTelecom (Apr. 4, 2014), http://www.fiercetelecom.com/story/us-fiber-penetration-reaches-393-percent-buildings-says-vsg/2014-04-04 (reporting that Cox had, as of early 2014, "28,000 fiber lit buildings [and] 300,000 HFC serviceable buildings").

costs less per Mbps than DS-1 or DS-3 services."[111] Charter has told the Commission that, as a result of its fiber investments, "business services has been one of the fastest growing areas" within the company, with year-over-year revenue growth averaging just under 20 percent.[112] Cox states that it has "been a leader in providing Ethernet service."[113] NCTA asserts that cable companies are "extend[ing] BDS facilities to new buildings on a daily basis, replacing rapidly vanishing TDM services with superior Ethernet technology and leading the way in the IP transition."[114] Cable providers are not alone here: Sprint, for example, has announced plans to provision Ethernet over DOCSIS, relying on existing cable plant, as part of its strategy to offer Ethernet access to "95 percent of the country."[115]

The Mid-Size ILECs' experience as out-of-region purchasers of BDS confirms that HFC-based services compete against traditional ILEC offerings, including offerings provisioned over fiber optics. CenturyLink, for example, has put voluminous evidence on the record showing that it purchases HFC-based Ethernet access services from cable providers and treats those as interchangeable with fiber-based Ethernet access services for a substantial portion of the

[111] Comcast Comments at 11 (citation omitted).

[112] Charter Communications, Inc. Response to FCC's Information and Data Request, MB Docket No. 15-149, at 18 (filed Oct. 16, 2015).

[113] Cox Comments at 8.

[114] NCTA Comments at i. NCTA also calls the Ethernet market "enormously competitive" (a fact it attributes to cable companies), *id.* at 4-5, and explains the ways in which "Ethernet services" such as those that its members provide "are superior" to legacy services, *id.* at 5.

[115] *See* Sean Buckley, *Sprint ropes in Ethernet over Copper, Ethernet over DOCSIS into Ethernet strategy*, FIERCETELECOM (May 15, 2016), http://www.fiercetelecom.com/story/sprint-ropes-ethernet-over-copper-ethernet-over-docsis-ethernet-strategy/2016-05-15.

Ethernet-based services it provides outside its ILEC footprint.[116] Verizon, too, emphasizes that it has purchasing relationships with cable companies and purchases Ethernet services from them.[117] And AT&T has stated that it is able to purchase service "from a number of alternative suppliers, including CLECs, cable companies, and fixed wireless providers, and [that it] uses all of these options for both mobile backhaul and for the broadband services it offers to business customers."[118]

Recent revelations regarding cable deployments are also relevant to the provision of fiber-based service. Even in areas where cable providers have not currently deployed last-mile fiber, the fact that the largest four providers had, as of 2013, upgraded their headends to provide Metro Ethernet service in more than **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** census blocks[119] demonstrates that they could readily deploy fiber optic facilities in the face of customer demand. In this respect, cable companies are no different than the Mid-Size ILECs, which do not come close to having ubiquitous last-mile fiber and generally deploy it in only response to specific customer demand. The Commission and the Bureau have recognized as much. For example, in the 2013 *Data Collection Implementation Order*, the Bureau explained that it was "particularly interested in *Connections* that have been upgraded to business class Metro Ethernet (or its equivalent)" – regardless of whether they were

[116] *See, e.g.*, CenturyLink Feb. 19 Reply Comments, Ex. 3, Reply Declaration of Carla Stewart ¶¶ 2, 4, 9.

[117] *See* Letter from Maggie McCready, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 15-247 *et al.* (filed Mar. 1, 2016) ("Verizon Mar. 1 Ex Parte"), Attach. A, Declaration of Brendan Gunn and Daniel Higgins ¶ 17 ("Gunn/Higgins Decl.").

[118] AT&T Comments at 16 (citation omitted).

[119] *See* CenturyLink, Inc. *et al.*, Motion to Strike, WC Docket Nos. 16-143 *et al.* (filed June 17, 2016) ("Motion to Strike"), Attach. A, Declaration of Glenn Woroch & Robert Calzaretta ¶ 13.

currently being used to provide fiber-based service – because it "is reasonable to assume that such upgrades were made based on strong expectations as to the likelihood of sufficient demand for *Dedicated Service* and are sources of potential competition."[120] In the May FNPRM, the Commission again underscored that cable providers had been required "'to report all *Locations* with *Connections* owned or leased as an *IRU* that are connected to a *Node* (i.e., headend) that has been upgraded or was built to provide Metro Ethernet (or its equivalent) service,… regardless of the service provided over the *Connection* or whether the *Connection* is idle or in-service.'"[121] More broadly, the FNPRM repeatedly recognizes the importance of potential build-out. It describes the competitive market test – the "core of the Commission's proposal" – as being based on *both* "current and potential competition,"[122] says that "competitive entry *and potential competition* are bringing material competitive benefits,"[123] and emphasizes that "facilities-based competitors (both actual and potential)" must be relevant to any determinations.[124] Dr. Sweeting, moreover, confirmed in his peer review of the Rysman Report that it is "quite standard" to "look[] at whether rivals are present in close proximity to customers."[125]

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[120] *Special Access for Price Cap Local Exchange Carriers*, Report and Order, 28 FCC Rcd 13189, 13200-01 ¶ 26 (WCB 2013) ("*Data Collection Implementation Order*") (citation omitted).

[121] FNPRM ¶ 34, quoting *Data Collection Implementation Order*, 28 FCC Rcd at 13199 ¶ 23. *See also id*. ¶ 250 (noting that the Bureau had defined connections as capable of providing a dedicated service for data reporting purposes when they are connected to a Metro Ethernet-capable headend).

[122] *Id.* ¶ 5.

[123] *Id.* ¶ 3.

[124] *Id.* ¶ 30.

[125] Sweeting Peer Review ¶ 6.

Cable providers' deployment of Metro Ethernet-capable headends is especially significant given record evidence showing that it is economic for competitors to construct fiber connections to serve new demand even at significant distances. The Commission's own data from the 2013 collection demonstrates that CLECs regularly extend laterals from their fiber nodes at distances of well over 1,000 feet.[126] In reality, **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**[127] Indeed, Lightower states that "in most locations providers can readily extend their networks by ¼ mile to serve a customer."[128]

In light of the above, the Mid-Size ILECs again note the debilitating methodological weaknesses of the study performed by Dr. Marc Rysman for use in this docket. The Bureau hired Dr. Rysman to study "the nature of competition and marketplace practices in the supply of special access services."[129] Oddly, though, while Dr. Rysman acknowledged that BDS offerings "can be delivered over copper lines and hybrid fiber coaxial networks,"[130] he stated that his analysis was "essentially unaffected by [cable providers'] updated submissions," because those

[126] Third IRW White Paper at 33.

[127] *Id.* at 34.

[128] Lightower Aug. 3 Letter at 1.

[129] News Release, FCC, *FCC Takes Major Step in Review of Competition in $40 Billion Special Access Market* (Sept. 17, 2015).

[130] Marc Rysman, "Empirics of Business Data Services," White Paper, Apr. 2016 (rev. June 2016), at 4 ("Revised Rysman Report").

submissions principally concerned "hybrid fiber coaxial cable (HFC) network that is linked to Metro Ethernet (MetroE) capable headends" whereas he limited his study "primarily [to] facility-based fiber competition."[131] This statement is dubious on its face – in reality, non-fiber facilities played a central role in Dr. Rysman's analysis, and all three aspects of his analysis (revenues, locations, prices) incorporated data associated with BDS provided over non-fiber facilities.[132] Dr. Rysman's exclusion of HFC networks is also inconsistent with his own methodology: Both versions of Dr. Rysman's report presume that ILECs have the ability to compete in the provision of *all* types of BDS throughout their service territories,[133] based on the fact that ILECs have deployed copper facilities throughout their footprints, even though they do not currently serve BDS customers in most locations and have deployed fiber facilities only to a minority of buildings.[134] These ILEC facilities "count" even when the provider must deploy additional plant to provision fiber-based BDS. But in the case of *cable* providers, Dr. Rysman now adopts the contrary position: the presence of legacy facilities and the ability to upgrade to fiber does *not*, in his view, render a cable provider a relevant competitor in the provision of BDS.[135] There is simply no basis for this arbitrary and contradictory approach.

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[131] *Id.* at 2 n.6. *See also id.* at 2 n.8.

[132] *See, e.g., id.* at Tables 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20.

[133] *See id.* at 13, Table 5; *id.* at 15, Table 7. In this regard, Dr. Rysman's suggestion that his prior analysis was "primarily focused on facility-based fiber competition," *id.* at 2 n.6, is simply incorrect, because his original and revised reports both rely on the assumption that ILECs – which lack fiber in most locations – provide BDS using copper facilities.

[134] *See* Mid-Size ILEC Comments at 27-28; *see also* CenturyLink Feb. 19 Reply Comments at 39 n.137 (citing Declaration of Julie Brown and David Williams ¶ 17).

[135] *See, e.g.*, Revised Rysman Report at 11 n.25 (noting that the revised report "excludes competition … over an HFC network connection except where an active BDS or managed service sale was made").

Moreover, the peer reviewers were never afforded an opportunity to opine on Dr. Rysman's choice in this regard. Their original reviews predated the Revised Rysman Report and thus could not have considered his choice to ignore new evidence regarding HFC deployments.[136] And while the Bureau asked them to review the revised report, it foreclosed consideration of Dr. Rysman's choice to ignore the new cable information, instead instructing them that "the analysis in the Rysman Paper" was "primarily focused on fiber competition" and therefore was "for the most part not affected" by the new data.[137] This is precisely the type of methodological decision that peer review is designed to assess, and the Bureau's decision to insulate it from such review calls Dr. Rysman's analysis further into question. Notably, notwithstanding the Bureau's instruction, Dr. Sweeting volunteered his observation that there is "some evidence [in the FCC Staff's analysis] that the cable presence measures reduce prices" and that "[f]or DS-3 we see some large price-reducing effects of DOCSIS 3.0 availability."[138]

There is, furthermore, no merit to the Staff Memorandum's conclusion that cable facilities "did not appear to be a significant source of competition in 2013."[139] First, this conclusion is based on an argument that Dr. Rysman himself has repudiated. Specifically, the Staff Memorandum states that "[i]f this cable infrastructure was having an influence on the

[136] *See generally* Letter from Bryan N. Tramont, Counsel to CenturyLink, Inc. *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.* (filed July 19, 2016).

[137] Letter from Matthew S. DelNero, Chief, Wireline Competition Bureau, FCC, to Andrew Sweeting, Associate Professor, University of Maryland, at 1 (July 1, 2016); Letter from Matthew S. DelNero, Chief, Wireline Competition Bureau, FCC, to Professor Tommaso Valletti, Imperial College London, at 1 (July 1, 2016).

[138] Letter from Andrew Sweeting, Associate Professor, University of Maryland, to Matthew DelNero, Chief, Wireline Competition Bureau, FCC, at 1-2 (July 13, 2016).

[139] Wireline Competition Bureau, "Peer Review of *Empirics of Business Data Services* White Paper by Dr. Marc Rysman (April 2016)," June 28, 2016 ("Staff Memorandum"), Attach. 3, at 1.

ability to exercise market power, we would expect to observe that for products and areas where there is evidence of incumbent local exchange company (ILEC) market power (a statistically significant negative effect of facilities-based competition variables on ILEC prices) that the presence of the cable infrastructure has a statistically negative effect on prices."[140] It then determines that regression analysis shows little change in BDS pricing resulting from the presence of cable facilities, and that this means that potential competition from HFC facilities did not constrain ILEC prices.[141] But this presumption – that the absence of price reductions indicates continued market power notwithstanding cable entry – explicitly conflicts with the central premise underpinning Dr. Rysman's report, which is that "if market power did not exist, for instance because the threat of entry held down prices in all local markets, we would not necessarily see any further decrease in price when actual entry did occur."[142] In short, the Staff Memorandum erroneously interprets evidence that Dr. Rysman believes demonstrates the *absence* of market power to signify exactly the opposite.[143]

Moreover, the Staff Memorandum's analysis double-counts facilities, necessitating de-duplication of instances in which cable companies with both fiber and HFC facilities in the same area are counted as two competitors. Such de-duplication yields results – using the agency's own non-clustered methodology – that are statistically significant[144] These results show that,

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[140] *Id.*

[141] *See id.* at 6.

[142] Revised Rysman Report at 2.

[143] *See also* Third IRW White Paper at 22.

[144] *Id.*

even using the Staff Memorandum's flawed regressions, cable companies' HFC-based services constrain ILEC prices.[145]

B. The Commission Cannot Discount the Role of DOCSIS-Based Cable BDS.

The Commission must also take into account lower-cost, DOCSIS-based cable competition. As the Mid-Size ILECs and others have already explained, the FNPRM's asserted distinction between these so-called "best efforts" services and BDS – based primarily on the presence of service level guarantees – is misplaced and cannot be squared with marketplace realities. For example, many of these services do include SLAs and offer speeds comparable to Ethernet services and well in excess of DS1 speeds.[146] Even Dr. Rysman has acknowledged that "some customers may view best-efforts broadband services as a viable alternative" to services that include performance commitments.[147]

The recent survey conducted by USTelecom confirms the fallacy underlying efforts to have the Commission differentiate DOCSIS-based cable services and disregard their competitive relevance.[148] For instance, not only were nearly 85 percent of actual businesses surveyed willing to consider switching to cable-provided services, almost 20 percent of businesses *relying* on best efforts services had switched *from* services deemed "BDS" under the FNPRM's artificial dichotomy.[149] The survey data also disprove the FNPRM's claim that what it calls best efforts

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[145] *Id.*

[146] Mid-Size ILEC Comments at 40-44; *see also, e.g.*, ITTA Comments at 10-13.

[147] Revised Rysman Report at 9.

[148] *See generally* USTelecom Survey; *see also* USTelecom Comments at 3-17 (describing survey results and methodology).

[149] USTelecom Survey at 5, 6.

services lack the "substantial reliability guarantees and functionality" of other BDS.[150] Rather, 83 percent of Business Internet Access Service customers and 79 percent of Data Networking Service customers – approximately four-fifths for each – believe their service comes with some kind of service assurance or guarantee.[151]

Similarly, notwithstanding the FNPRM's speculation that "some end users do not require 'mission critical' connectivity, and prefer best efforts services to BDS, prioritizing cost savings over reliability and specific functionality,"[152] the survey finds that actual on-the-ground business purchasers of "best efforts" services *do* highly value reliability and data security – even over cost. For instance, 91 percent of Business Internet Access Service customers and 89 percent of Data Networking Service customer ranked Reliability as "very important" in their choice of service, compared to 66 percent and 60 percent, respectively, ranking Cost as "very important."[153] Meanwhile, the data show that only roughly half of surveyed customers deem BDS-specific contractual service-level agreements "very important."[154]

In light of this evidence of actual customer behavior, the Commission should reject the FNPRM's "key belief" that so-called best efforts services are not a substitute for other BDS and ensure that these offerings are properly accounted for in its assessment of the marketplace.

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[150] FNPRM ¶ 194.

[151] USTelecom Survey at 9.

[152] FNPRM ¶ 194.

[153] USTelecom Survey at 7.

[154] *Id.*

C. Cable-Provided Services Are a Particularly Relevant Substitute for DS1 Services.

The Mid-Size ILECs previously explained that the Commission's product market analysis must account for all forms of cable competition.[155] As part of this analysis, the Commission must recognize the role that HFC-based Ethernet services play as substitutes for DS1 services. Functionally, cable modem services are often superior to DS1 links: A DS1 circuit transmits 1.544 Mbps in each direction, whereas, according to the Commission's end-of-2015 Measuring Broadband America Report, by September of 2014 even ordinary cable modem service offered download speeds over 40 Mbps and upload speeds over 6 Mbps – both many times the throughput offered by a DS1.[156] Thus, as Comcast recognizes, "in areas where a cable provider is able to provide Ethernet services over its HFC facilities, the presence of those HFC facilities in a given market could indicate that the ILEC in that market faces some degree of potential competition from the cable provider – and such potential competition may be relevant when considering whether to continue regulating the ILEC as a dominant provider in that market."[157] Comcast itself therefore markets its dedicated Internet access service as a "cost effective and more flexible option" than DS1 services.[158]

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[155] Mid-Size ILEC Comments at 38-44.

[156] *See 2015 Measuring Broadband America Fixed Broadband Report: A Report on Consumer Fixed Broadband Performance in the United States*, Charts 12.1, 12.2, *available at* https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-broadband-america-2015#_Toc431901592.

[157] Comcast Comments at 5.

[158] Comcast Business, *Ethernet vs. T1s for Internet Access* (2014), http://xact.spiceworks.com/comcast/oct_2012/Ethernet_vs_T1s_for_Internet_Access.pdf. *See also* Comcast Comments, Mayo Decl. ¶ 113 ("From an economic perspective, the ability of competitive providers of one bandwidth of service to offer BDS services at other bandwidths

The Mid-Size ILECs' experience as out-of-region purchasers of BDS also confirms that HFC-based cable services are a direct source of competition for DS1 services. The clearest example of this is CenturyLink's increasing use of HFC-based Ethernet services in recent months. The attached Declaration of James Morris illustrates that cable operators can and do use HFC plant to provide services in direct competition with ILEC-provided DS1s.[159] In fact, for the first half of 2016, **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**[160] According to Mr. Morris, HFC-based Ethernet services "are a particularly good replacement" for DS1 services due to their capacity levels, price and performance guarantees.[161] For example, **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**[162] Thus, any suggestion that HFC-based

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defeats any meaningful discussion of distinctions in the competitiveness of lower-bandwidth services (e.g., DS1) and higher speed (e.g., high bandwidth) services. My understanding is that Ethernet services are entirely scalable and capable of providing services that are directly competitive with DS1, or DS3, or higher bandwidth services.").

[159] *See* Declaration of James Morris ¶ 5, attached hereto as Exhibit 1.

[160] *Id.* ¶ 3.

[161] *Id.* ¶ 4.

[162] *Id.*

Ethernet services should be excluded from Commission's product market analysis is incorrect and not reflective of marketplace realities.[163]

III. THE VERIZON-INCOMPAS PROPOSAL IS NOT A COMPROMISE AND DOES NOT OFFER A VIABLE ROADMAP FOR THIS PROCEEDING

Many proponents of expansive BDS regulation incorrectly characterize the proposal announced by Verizon and INCOMPAS on the eve of the deadline for filing opening comments as some sort of a compromise framework that should serve as the basis for new rules.[164] Far from offering a middle ground that accounts for the viewpoints of all stakeholders, that eleventh-hour proposal reflects the mutual worldview of entities whose business interests have recently come into alignment. It preserves, and in some respects exacerbates, the FNPRM's key flaws. The Verizon-INCOMPAS framework should not guide the resolution of this proceeding.[165]

That Verizon and INCOMPAS now purport to see eye-to-eye on these matters after years of disagreement does not (as some suggest) evidence a meeting of the minds across a great

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[163] *See* Cox Comments at 16.

[164] *See, e.g.*, INCOMPAS Comments at 2; Comments of Verizon, WC Docket Nos. 16-143 *et al.*, at 5-6 (filed July 28, 2016) ("Verizon Comments"); Joint CLEC Comments at 3; Comments of TDS Metrocom, LLC, WC Docket Nos. 16-143 *et al.*, at 3-4 (filed June 28, 2016); Public Knowledge Comments at 4-5; *see also* Letter from Maggie McCready, Verizon, and Karen Reidy, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143 *et al.*, at 1 (filed July 7, 2016) ("July 7 CLEC Ex Parte") (describing meeting with Commission staff in which representatives of Verizon, INCOMPAS, EarthLink, Level 3, Sprint, and Windstream advocated this position).

[165] Apart from the various flaws noted below, the proposal is not even a complete framework, as Verizon and INCOMPAS admit that they have "not reached agreement" on many of its elements and details. Verizon-INCOMPAS Letter at 1; *see also id.* at 2 (asserting that competition should be measured by "the number of facilities-based providers in the census block, although we have not agreed on what constitutes such a provider"); Verizon Comments at 6 (stating that the parties have "not yet reached agreement on many of the details" of their proposal); Joint CLEC Comments at 3 ("Of course, the proposal does not address all of the many details associated with the adoption of a new regime.").

divide of disparate interests.[166] Rather, their strategic union here merely reflects the dramatic shift in Verizon's business priorities after "restructuring its business model" to focus on its (largely out-of-region) wireless assets at the expense of the largely rural ILEC exchanges in which it has lost interest[167] – exchanges that several of the Mid-Size ILECs stepped up to serve.[168] For instance, Verizon's President and CEO recently explained that its sale of exchanges to Frontier was "the right thing to do" precisely because the service offerings in those exchanges "were not scalable."[169] Verizon's CFO similarly sought to justify the sale of those exchanges by explaining that "it just really wasn't efficient for us to operate them with the rest of the FiOS footprint" due to the presence of "a lot of copper in those footprints,"[170] a view that is consistent with the company's "focus[] on margins and improving the profitability of the

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[166] *See* INCOMPAS Comments at 1 (noting that Verizon and INCOMPAS "hav[e] long advocated divergent views"); Verizon Comments at 2 (stating that the parties reached their truce "after advocating opposing views for many years"); Comments of NASUCA and the Maryland People's Counsel, WC Docket Nos. 16-143 *et al.*, at 13 (filed June 28, 2016) ("NASUCA Comments") ("It is notable that the Verizon-INCOMPAS Joint Letter supports ex ante rate regulation for this market, given Verizon's historical opposition to ex ante rules.").

[167] Zacks Equity Research, *Verizon Communications Likely to Divest Data Centers* (Jan. 25, 2016), https://www.zacks.com/stock/news/204882/verizon-communications-likely-to-divest-data-centers (citing Verizon's purchase of the remaining 45 percent stake in Verizon Wireless from Vodafone, its lease and sale of wireless towers, and sales of exchanges to Frontier); *see also* Doug Dawson, *Verizon's Strategy*, CCG Consulting (Feb. 17, 2015), https://potsandpansbyccg.com/2015/02/17/verizons-strategy/ (addressing the Verizon/Frontier transaction, and stating that "[i]t's starting to look like Verizon doesn't want to be in the landline business at all, perhaps not even in the fiber business.").

[168] Mid-Size ILEC Comments at 2 & n.3 (citing acquisitions of Verizon exchanges by Frontier and FairPoint).

[169] Lowell McAdam, Chairman & CEO, Verizon Commc'ns, Inc., Remarks at the JPMorgan Technology, Media, and Telecom Conference, at 11 (May 24, 2016).

[170] Fran Shammo, EVP & CFO, Verizon Commc'ns, Inc., Remarks at the MoffetNathanson Media & Communications Summit, at 3 (May 19, 2016) (transcript available online through the Thomson Reuters StreetEvents subscription service).

Wireline segment" by reducing costs.[171] Verizon has also re-invented itself through its purchase of AOL last year and recently announced proposed acquisition of Yahoo, by which it is turning its competitive eye away from traditional wireline rivals and toward newer online businesses.[172]

In short, after shedding ILEC exchanges it no longer wants and moving to acquire one of the largest CLECs (XO Communications), Verizon has become a very significant BDS buyer – indeed, both friends and foes of Verizon's truce with INCOMPAS suggest that it is now a *net* purchaser of BDS offerings.[173] Though in other recent proceedings Verizon provided compelling evidence of the highly competitive state of the enterprise broadband market, and vociferously fought common carrier re-regulation of enterprise Ethernet and OCN services that had largely been forborne,[174] Verizon today highlights its role as a buyer of BDS,[175] and has twice submitted sworn declarations describing its recent difficulty in purchasing BDS from one

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[171] Thomson Reuters StreetEvents, *VZ – Q4 2015 Verizon Communications Inc. Earnings Call*, Edited Transcript, at 7 (Jan. 1, 2016) (Fran Shammo, EVP & CFO of Verizon Commc'ns Inc.).

[172] *See, e.g.*, Joseph Williams, *Verizon Eyes Digital Future in Yahoo Deal*, SNL (July 25, 2016) (calling the deal "the next step in Verizon's move toward future growth," since the company's "telecom and cable business" has "matured," leaving it "increasingly looking at digital media as the way forward"); Vindu Coel, *Verizon Announces $4.8 Billion Deal for Yahoo's Internet Business*, N.Y. TIMES (July 25, 2016) (observing that Verizon is "seeking to build an array of digital businesses that can compete for users and advertising with Google and Facebook").

[173] AT&T Comments at 6 & n.16; Harold Feld, *AT&T's BDS Hissy Fit Is Bad Strategy*, Wetmachine: Tales of the Sausage Factory (July 5, 2016), http://www.wetmachine.com/tales-of-the-sausage-factory/atts-bds-hissy-fit-is-bad-strategy/ (observing that Verizon has become "a net purchaser of business data service (BDS) as it has sold off wireline systems and expanded both its wireless and content offerings").

[174] *See, e.g.*, Verizon Reverse Forbearance Comments at 11.

[175] Verizon Comments at 2 ("Verizon has approached this process from its unique perspective as one of the country's largest sellers *and* purchasers of Business Data Services.") (emphasis in original); Verizon Mar. 1 Ex Parte at 5 (stating that Verizon "is a wholesale customer, especially in the many states in which Verizon is not an ILEC").

particular provider – hinting at a possible motivation underlying its sudden interest in subjecting facilities-based providers to new rules.[176] In other words, Verizon did not see the proverbial light (from the perspective of those promoting expanded regulation) – rather, it merely recognized that its current business interests in this context would be advanced by the more highly regulatory solutions historically sought by INCOMPAS and its members. Verizon thus is not a proxy for other ILECs here.

Nor can the Verizon-INCOMPAS proposal credibly be portrayed as a "compromise."[177] The fact that CLECs immediately lined up behind the proposal and remain the only marketplace participants to endorse it should be sufficient to show that CLECs are the sole constituency whose interests are represented and who would benefit from that framework. Their enthusiasm is not surprising, based on the substance of the proposal. Far from offering "a middle ground between many different perspectives" as its sponsors claim,[178] this proposal aligns almost completely with the entrenched platform that CLECs have developed in this proceeding during the past decade. In fact, the only apparent CLEC concession is the abandonment of individual customer locations as the appropriate geographic market – a proposition so untenable that even the FNPRM repudiated it[179] – in favor of using census blocks (which has long been at worst the CLECs' second choice).[180]

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[176] Verizon Mar. 1 Ex Parte at 5-6 & Gunn/Higgins Decl.; Verizon Comments at 10 & Exh. A (Declaration of Daniel Higgins).

[177] INCOMPAS Comments at 2.

[178] Verizon-INCOMPAS Letter at 3; *see also* July 7 CLEC Ex Parte at 1 (claiming that the proposal is a "balanced approach that incorporates both sides of the policy debate").

[179] FNPRM ¶ 289.

[180] Verizon-INCOMPAS Letter at 2.

In other respects, the proposal veers unequivocally to the far regulatory end of the spectrum, landing outside even the FNPRM's comfort zone. Most notably, under the Verizon-INCOMPAS proposal, "*all* Business Data services at or below a specified threshold" of "no lower than 50 Mbps" categorically would be "deemed non-competitive in *all* census blocks" and thus automatically would be subject to *ex ante* price regulation regardless of the actual facts on the ground.[181] The FNPRM did not embrace such subdivisions, instead merely seeking comment on whether the Commission should employ them at all and, if so, what the threshold should be (including options above 50 Mbps) among other questions related to the administrability and utility of subdividing markets by bandwidth.[182] A proposal that would result in more regulation than the FNPRM proposed cannot rationally be deemed a middle ground.

In any event, the substance of the Verizon-INCOMPAS proposal is badly flawed. To start with its attempt at line-drawing noted immediately above, there is no basis for deeming services at or below 50 Mbps (or some higher threshold) nationwide to be non-competitive. As an initial matter, reliance on such sweeping presumptions – which, as proposed, would not even be rebuttable – would blatantly contravene the Commission's oft-stated commitment to basing its regime on actual marketplace data.[183] The agency's extensive data collection was designed to evaluate competition in a more nuanced fashion, and there is no reason to abandon that approach in favor of bright-line cut-offs. This is particularly the case when the cut-offs bear so little relationship to marketplace facts. The record shows the presence of multiple competitors on a

[181] *Id.* (emphasis added).

[182] FNPRM ¶¶ 285-86.

[183] Motion to Strike at 4-8 (describing the history of the data collection).

nationwide basis, many of which can and do provision service at levels at or under 50 Mbps. Indeed, in many instances, broadband Internet access services can reach the speeds at issue and serve purchasers' needs. The Rysman Report does not address whether market power existed for Ethernet services under 45 Mbps, further undermining any effort to draw lines based on that threshold. But other economists *did* conduct that analysis, and found no evidence of market power for those services.[184] As such, there is no evidentiary basis for regulating Ethernet service, even when it is used to provision service at or under 50 Mbps.

Further, despite a professed interest in treating BDS providers "evenhandedly,"[185] Verizon and INCOMPAS's proposed competitive test improperly would exclude competitors relying on UNEs or so-called "best efforts" cable offerings.[186] As the Mid-Size ILECs and others have explained, UNE-based competition plays a vital role in the BDS marketplace.[187] That proposition is hardly controversial: It has been endorsed by the Commission,[188] the

[184] Declaration of Mark Israel, Daniel Rubinfeld, and Glenn Woroch, at 26 (filed Feb. 19, 2016) ("Reply Econometric Analysis").

[185] Verizon Comments at 2.

[186] Verizon-INCOMPAS Letter at 2.

[187] *See generally* Mid-Size ILEC Comments at 44-48; *see also id.* at 29-30 (explaining that the Rysman Report gives inadequate weight to UNE-based competition).

[188] *See, e.g., Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd 2533, 2574 ¶ 65 (2005) (emphasizing that the availability of UNEs "is itself a check on special access pricing"); *Technology Transitions*, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 30 FCC Rcd 9372, 9446 ¶ 134 (2015) (recognizing that EoC, provisioned by CLECs using unbundled ILEC loops, "enhances the ability of enterprise customers to choose the most cost-effective option for their business or organization").

courts,[189] and even some CLECs (at least when convenient).[190] The FNPRM and the Rysman Report likewise at times acknowledge the prevalence of UNE-based competition in this space (despite then arbitrarily proposing to discount it).[191] Notably, Verizon and INCOMPAS originally appeared to agree, stating in their initial joint filing several months ago that "[a]ll providers offering the same or similar services should be subject to the same overall regulatory framework" and that "[t]his new model would encompass all dedicated services (*e.g.*, TDM special access services and packet-based services such as Ethernet) provided by all competing providers."[192] Similarly, as explained above and elsewhere in the record (including in materials submitted by Verizon just before its change of position), there is no basis on which to minimize the import of lower-cost cable data services.[193] In light of this evidence, the Commission should not artificially limit its competitive analysis as Verizon and INCOMPAS now propose.

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[189] *Covad Commc'ns v. FCC*, 450 F.3d 528, 539 (D.C. Cir. 2006) (noting the Commission's finding "that the availability of UNEs serves to discipline special access rates by exercising a 'constraining influence' on the ILECs' ability to increase their [special access] rates").

[190] Comments of Windstream Services, LLC, WC Docket No. 16-70, at 13 (filed May 20, 2016) (identifying EoC as a viable competitive alternative to ILEC BDS "when deploying its own network facilities is not economically feasible" in the course of arguing that Verizon's acquisition of XO Communications would harm the availability of EoC competition); *see also* Mid-Size ILEC Comments at 46-48 (citing other CLEC comments to this effect).

[191] *See, e.g.*, FNPRM ¶ 91 ("the data show that the vast majority of off-net services provided by competitive LECs is provided through either incumbent LEC leased facilities or incumbent LEC UNEs") (citing evidence submitted by CLECs); Rysman Report at 208-09, Tbl. 4 (indicating that 47 percent of locations served by competitive providers are provisioned through UNEs); *id.* at 203 (supporting a Commission "analysis of UNE competition").

[192] *See* Verizon-INCOMPAS Letter at 2-3.

[193] Mid-Size ILEC Comments at 38-44; Verizon Mar. 1 Ex Parte at 5. *See also supra* Section II.B.

Moreover, the Commission should reject the census block as the relevant geographic market.[194] As the Mid-Size ILECs have explained, such an approach is impractical and would not be administrable.[195] Verizon and INCOMPAS implicitly seem to acknowledge as much by reverting to bright-line tests based on speed rather than rules based on the actual evidence. The correct approach is not to eschew the data altogether but to apply it to larger geographic units. The Mid-Size ILECs believe there is considerable support in the record for the use of census tracts.

Finally, there is no basis for a 4.4 percent annual productivity factor.[196] As discussed at length above,[197] proposals to reduce BDS rates are flawed as a matter of econometrics, and the Verizon-INCOMPAS proposal offers no compelling argument to the contrary or any justification whatsoever for its excessively high proposal.

For all of these reasons, the Commission should reject the flawed Verizon-INCOMPAS proposal as an appropriate framework for this proceeding. Whatever the cause of Verizon's change of heart, it has not repudiated, much less refuted, its previous portrayal of the BDS marketplace as dynamic and highly competitive.[198] That evidence is persuasive, and should not

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[194] Verizon-INCOMPAS Letter at 2.

[195] Mid-Size ILEC Comments at 51-52.

[196] Verizon-INCOMPAS Letter at 2.

[197] *See supra* Section I.B.

[198] For example, Verizon has emphasized the competitive pressure it faces from cable companies and others in its capacity as a BDS seller. *See, e.g.*, Verizon Mar. 1 Ex Parte at 2-5 (describing the "competitive threat from cable"). The Verizon-INCOMPAS proposal's passing reference (at page 2) to "economic challenges to new facilities-based entry at lower speeds" is irreconcilable with Verizon's previous characterization of intense cable competition.

be dismissed merely because it was submitted by a party that now advocates regulatory outcomes that are inconsistent with the proffered facts.

IV. THE COMMISSION SHOULD NOT REGULATE RATES FOR SERVICE PACKAGES INVOLVING BOTH "COMPETITIVE" AND "NON-COMPETITIVE" MARKETS

The Mid-Size ILECs agree with Cox that "the possibility of a patchwork of different rates based on whether an area is competitive or non-competitive would make it extremely difficult to work with multi-location customers and devise rational pricing plans."[199] Accordingly, whatever competitive market test it might adopt, the Commission must ensure that its framework does not supplant or disrupt the ability of BDS providers and multi-location customers to freely negotiate mutually beneficial BDS service arrangements for service bundles that span "competitive" and "non-competitive" markets.

As AT&T noted in its initial comments, multi-location, large-volume BDS customers are "among the most desirable of all customers, and, as a result, are *especially* sought out by BDS providers who compete vigorously for their business."[200] Perhaps the clearest example of this is Comcast's effort to specifically target Fortune 1000 companies and other large enterprises through a portfolio of managed enterprise solutions.[201] AT&T and NCTA also correctly point out that these sophisticated BDS customers enjoy substantial negotiating leverage for BDS

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[199] Cox Comments at 28.

[200] AT&T Comments at 48-49 (emphasis in original).

[201] Comcast Business, *Comcast Business Announces New Unit Targeting Fortune 1000 Enterprises* (Sept. 15, 2015) (also noting that the U.S. market for managed enterprise solutions is projected to grow from $29 billion in 2014 to $52 billion in 2019), http://corporate.comcast.com/news-information/news-feed/comcast-business-announces-new-unit-targeting-fortune-1000-enterprises.

arrangements,[202] which eviscerates any contention that ILECs have the power or ability to exercise market power in connection with these sales.

Given these facts, the Commission should abandon its proposal to restrict "geographic tying" arrangements and instead adopt a framework that maximizes parties' incentives to pursue for commercially negotiated, cost-effective BDS arrangements.[203] Specifically, the Commission should state affirmatively that where a BDS customer purchases service from a specific provider on a region-wide basis or in multiple geographic markets, and at least some of the areas at issue are deemed "competitive" under whatever test is adopted, that service package will not be subject to price-cap regulation. By way of example, if an enterprise customer (or a CLEC) buys from an ILEC in four geographic submarkets, two of which are deemed "competitive" and two of which are deemed "non-competitive" under the Commission's sorting mechanism, the agreed-to service package would not be subject to price caps at all. In these circumstances, numerous factors, including the commercial sophistication of multi-location customers, ILECs' strong business incentives to serve those attractive customers, and the marketplace pressures stemming from rivals in the competitive locations, will all ensure – as they do today – that rates are just and reasonable, all without undermining providers' abilities to negotiate agreements that benefit the would-be customer.[204] Moreover, these customers, just like single-establishment customers,

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[202] *See* AT&T Comments at 49; NCTA Comments at 10 (stating that large enterprises and multi-location customers "have the ability and leverage to negotiate reasonable BDS arrangements").

[203] *See* FNPRM ¶¶ 457-61.

[204] To be clear, the Mid-Size ILECs are not asking the Commission to treat multi-location BDS customers as a separate class under this proposal. *See* Mid-Size ILEC Comments at 53 ("[T]he Commission should refrain from separately analyzing the competitive options for multi-location customers and devising a unique regulatory framework for this subcategory of customers"). *See*

would always retain the option to purchase separate service from the ILEC in "non-competitive" areas subject price caps, and to choose to purchase in "competitive" areas from any of the providers present. Thus, multi-location BDS customers would enjoy the same protections as other customers if the Mid-Size ILECs' proposal were adopted.

V. THE COMMISSION SHOULD REJECT OTHER CLAIMS LACKING LEGAL OR FACTUAL BASIS

Although the Mid-Size ILECs do not here reiterate points already made in this docket, they take this opportunity to address a discrete set of issues warranting response.

A. BDS Markets Should Be Free From *Ex Ante* Rate Regulation When Two Or More Providers Are Present.

Several parties continue to insist that a market cannot be deemed competitive unless it contains four distinct competitors.[205] As the Mid-Size ILECs have explained, this is incorrect. Indeed, in a capital-intensive market with high sunk costs, welfare-maximizing outcomes can arise from just *two* competitors.[206] The Commission's treatment of the wireless industry is highly informative and largely built on that concept. That history is particularly relevant to the BDS marketplace, given that the provision of both wireless services and BDS involves high capital expenditures and sunk costs across a regional if not national footprint. In fact, applying a light-touch regulatory approach to BDS is even more logical and less problematic than in the wireless context, particularly given the relative ease of entry in the BDS marketplace (as evidenced by the explosion of competition today).

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also Verizon Comments at 9 ("That multi-location customers may prefer a more efficient way to acquire service is not a basis for treating them as a distinct customer market.").

[205] *See, e.g.*, Joint CLEC Comments at 9; Sprint Comments at 4; TDS Metrocom Comments at 11-12; *see also* Windstream Comments at 21-23.

[206] *See* Mid-Size ILEC Comments at 57-61.

In 1993, Congress amended Section 332 of the Communications Act to remove all commercial mobile radio services from state entry and rate regulation,[207] and to "establish a Federal regulatory framework" for all such services that would allow the FCC to forbear from imposing common carrier regulation that is "not necessary for the protection of consumers."[208] From the early 1980s until the early 1990s, the mobile telephone industry was characterized by a cellular common carrier duopoly – one given to the wireline incumbent and one non-wireline carrier per market, with some competition on the horizon.[209]

When the Commission began to implement this light-touch framework, it found that the duopoly cellular service market, even if not "fully competitive," still was sufficiently competitive to warrant forbearance from tariff-based rate regulation. After acknowledging the general principle that "in a competitive market, market forces are generally sufficient to ensure the lawfulness of rate levels [and] rate structures," the Commission concluded that "there is no record evidence that indicates a need for full-scale regulation of cellular or any other CMRS offerings."[210] Specifically, the Commission cited three factors that, in its view, would ensure that CMRS rates remained just and reasonable and would not be unjustly or unreasonably

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[207] Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 (1993) (amending 47 U.S.C. § 332).

[208] H.R. Rep. 103-213, 103rd Cong., 1st Sess. 490-91, 1993 U.S.C.C.A.N. 1179-80 (1993).

[209] For instance, in 1991, the Commission authorized Fleet Call (which later became Nextel) to assemble certain private radio services together to offer an alternative to cellular. *Fleet Call, Inc.*, 6 FCC Rcd 1533, *recon. dismissed*, 6 FCC Rcd 6989 (1991). And in 1992, the FCC initiated a proceeding to create additional potential competition, in the form of PCS. *New Personal Communications Services*, Notice of Proposed Rule Making and Tentative Decision, 7 FCC Rcd 5676 (1992).

[210] *Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411, 1478 (1994).

discriminatory without any need for prescriptive regulation: (1) the current existence of some degree of competition to the cellular duopoly, with additional competition potentially coming in the future; (2) the continued application of Sections 201, 202, and 208 of the Communications Act; and (3) the fact that "tariffing imposes administrative costs and can themselves be a barrier to competition in some circumstances."[211] As the record in the instant proceeding reflects, these factors are equally applicable – if not more so – to the BDS marketplace, which already features far more actual competition, with potential competitors emerging at a rapid pace.

The Commission held to these guiding principles even as some states exercised their right under the 1993 legislation to petition for authority to regulate mobile service rates. Seven states – Arizona, California, Connecticut, Hawaii, Louisiana, New York, and Ohio – filed petitions.[212] The Commission denied all seven, in each case reaching identical conclusions that underscore its firm belief that the presence of even two providers in these types of markets remained sufficient to ensure just, reasonable, and nondiscriminatory rates. In particular, the Commission determined that a state "should not be allowed to continue regulating CMRS overall, or cellular service in particular, merely by demonstrating that the market for cellular service has been less than fully competitive."[213] Observing that Congress likely was aware of the two-carrier cellular

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[211] *Id.* at 1478-79.

[212] Wyoming also petitioned for authority to continue regulating mobile rates, but withdrew this petition after the state legislature enacted deregulatory legislation.

[213] *Petition of the People of the State of California and the Public Utilities Commission of the State of California To Retain Regulatory Authority over Intrastate Cellular Service Rates*, 10 FCC Rcd 7486, 7497 ("*California Order*") (footnotes omitted), *recon. denied*, 11 FCC Rcd 796 (1995); *accord Petition of Arizona Corporation Commission, To Extend State Authority Over Rate and Entry Regulation of All Commercial Mobile Radio Services*, 10 FCC Rcd 7824, 7827 (1995); *Petition of the Connecticut Department Public Utility Control To Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers*, 10 FCC Rcd 7025, 7032-33

market structure yet broadly prohibited state regulation of CMRS anyway, the Commission "reject[ed] a reading of the statute that allows continued regulation merely on a showing of duopoly conditions, because it is not plausible to conclude that Congress adopted a self-defeating statutory scheme."[214] Thus, the Commission explained that it would authorize mobile rate regulation only on the basis of "demonstrable evidence of anticompetitive activity, or unjust and unreasonable, or unreasonably discriminatory, rates,"[215] as well as consideration of potential competitive entry in the immediate and near term.[216]

These principles would continue to guide wireless regulation for the decades to come. In fact, the subsequent history of wireless services in the United States would have been radically different – and far less successful – had the Commission required the sort of widespread competition that the FNPRM appears to envision as the predicate for steering clear of BDS rate regulation. The Commission's CMRS precedent provides a time-tested guide for when and where it should regulate rates in the BDS marketplace, and no proponent of regulation today has provided any credibly justification for the agency to diverge from that light-touch approach.

(1995), *review denied sub nom. Connecticut Dep't of Pub. Util. Control v. FCC*, 78 F.3d 842 (2d Cir. 1996); *Petition on Behalf of the State of Hawaii, Public Utility Commission, for Authority To Extend Its Rate Regulation of Commercial Mobile Radio Services*, 10 FCC Rcd 7872, 7874-75 (1995); *Petition on Behalf of the Louisiana Public Service Commission for Authority To Retain Existing Jurisdiction over Commercial Mobile Radio Services*, 10 FCC Rcd 7898, 7900-01 (1995); *Petition of New York State Public Service Commission To Extend Rate Regulation*, 10 FCC Rcd 8187, 8191 (1995); *Petition of the State of Ohio for Authority to Continue to Regulate Commercial Mobile Radio Services*, 10 FCC Rcd 7842, 7844-45 (1995), *recon. denied*, 10 FCC Rcd 12427 (1995).

[214] *California Order*, 10 FCC Rcd at 7498.

[215] *Id.* at 7501.

[216] *Id.* at 7502.

The Commission is not alone in this approach, as state regulators likewise have declined to require strict rate regulation when there are two providers. For instance, only a few years ago, the Washington Utilities and Transportation Commission ("WUTC") granted Frontier pricing flexibility in connection with its basic residential services, citing evidence that "[e]xchanges serving 95.8% of Frontier's access lines have a cable voice provider," and "[a]t a minimum, exchanges serving 99.3% of Frontier's access lines have at least AT&T or T-Mobile voice service."[217] On that basis, the WUTC concluded, "[w]e do not believe that, in this environment, Frontier could raise its local exchange rates substantially without accelerating the line loss the Company is already experiencing," and it authorized Frontier to remove these services from its tariff.[218]

B. The Commission Does Not Possess "Unforbearance" Authority.

Several commenters urge the Commission to reverse its previous forbearance grants.[219] NTCH goes so far as to assert that the Commission is "required" to reverse a forbearance grant if

[217] Washington UTC, *Petition of Frontier Communications Northwest Inc., To be Regulated as a Competitive Telecommunications Company Pursuant to RCW 80.36.320*, Final Order Approving Settlement Agreements with Conditions and Classifying Services as Competitive, ¶ 61, Docket UT-121994 (Jul. 22, 2013).

[218] *Id.* ¶¶ 62-63. Of note here, the WUTC also awarded Frontier pricing flexibility in connection with its special access services. Although it did not make any specific findings regarding competition, the WUTC declined to impose any restrictions on Frontier's ability to lower its rates for special access services (including a requirement that would obligate Frontier to submit a cost study to support a decrease in its special access rates), finding that there was "no reason to believe that Frontier could or would reduce its special access rates" in order to effectuate an anticompetitive price squeeze and "approv[ing] of giving Frontier more flexibility to adjust its prices." *Id.* ¶ 67.

[219] Ad Hoc Telecommunications Users Comments at 18; NASUCA Comments at 7; Comments of NTCH, Inc., WC Docket Nos. 16-143 *et al.*, at 5-6 (filed June 27, 2016) ("NTCH Comments").

any of the necessary forbearance criteria under Section 10 are no longer present.[220] Contrary to the assumptions of these commenters, the Commission lacks legal authority to simply "reverse" enterprise broadband forbearance. As the Mid-Size ILECs explained in their opening comments, neither Section 10 nor any other provision in the Act provides a process for (much less *requires*) the Commission to reverse a grant of forbearance.[221] Rather, any decision to re-impose statutory requirements that have been "extinguished" under Section 10 must come from Congress, not the Commission.[222] Furthermore, the Commission lacks authority to re-impose the same requirements by rule or order, as doing so would be inconsistent with the Act and *ultra vires*. In short, these commenters invite the Commission to take on an extremely difficult task: To quote Verizon, "Although a grant of forbearance is 'not chiseled in marble,'" it is (in the words of a prior General Counsel) "'difficult,' and something the Commission 'has never done.'"[223]

Even assuming, *arguendo*, that statutory authority to re-regulate forborne services could be implied in the Act, the Commission could not justify regulation unless it were to make affirmative findings, based on the record, that a "market failure" has occurred *and* that "a regulatory solution is available that is likely to improve the net welfare of the consuming public,

[220] NTCH Comments at 6.

[221] Mid-Size ILEC Comments at 32-34.

[222] *See Sprint Nextel Corp. v. FCC*, 508 F.3d 1129, 1132 (D.C. Cir. 2007); *MCI Telecomms. Corp. v. FCC*, 765 F.2d 1186, 1195 (D.C. Cir. 1985) (finding that the pre-1996 Act Commission lacked authority to "command that common carriers not file tariffs").

[223] Verizon Reverse Forbearance Comments at 5, citing *Ad Hoc Telecomm's Users Comm. v. FCC*, 572 F.3d 903, 911 (D.C. Cir. 2009), and A. Schlick, FCC General Counsel, *A Third Way Legal Framework for Addressing the Comcast Dilemma*, at 8-9 (May 6, 2010).

i.e., does not impose greater costs than the evil it is intended to remedy."[224] In the absence of an affirmative finding of market failure, the Commission cannot rationalize adopting new regulations over services which have been deregulated by Congress (through Section 10 forbearance). Based on the structure of Section 10, the Commission would have to make affirmative findings that the regulation *is necessary* to ensure that the charges, practices, classifications and regulations for the previously forborne services are just and reasonable and not unjustly or unreasonably discriminatory, and that the regulation *is necessary* for the protection of consumers and the promotion of the public interest.[225] The FNPRM fails to establish this baseline, and the comments demonstrate that the proposed regulations are far more burdensome and potentially harmful to the market and consumers than can be justified by the current record.

C. The Commission Should Not Adopt Flawed and Unnecessary Proposals to Regulate Wholesale BDS Rates.

In its opening comments and subsequent filings, Windstream persists in its crusade to have the Commission regulate the relationship between wholesale BDS rates and retail rates of services relying on BDS inputs – both on an interim and long-term basis.[226] Despite its tenacity, Windstream still fails to establish its premise that such regulation is even needed. In fact, in a docket replete with unduly pessimistic views of the BDS marketplace, Windstream's portrayal is particularly detached from reality and the record. It understates the number of competitors

[224] *Id.* at 6, citing *Amendment of 47 C.F.R. §73.658(j)(1)(i), (ii), the Syndication and Financial Interest Rules*, Tentative Decision and Request for Further Comments, 94 F.C.C.2d 1019, 1055 ¶ 107 (1983).

[225] *See* 47 U.S.C. §160(a).

[226] Windstream Comments at 36-55; Windstream July 25 Letter at 5-9.

(claiming that there is "only one" provider with last-mile connections in most markets and that cable is not an option, despite evidence regarding cable's wholesale offerings), disclaims virtually any ability to build laterals (despite evidence of the ease with which other providers do so), and grossly overstates the sums it pays (despite evidence of declining rates and statements from ILECs and CLECs that competition is forcing them to reduce Ethernet rates).[227] Windstream's statements are demonstrably incorrect.

In addition, Windstream continues to press its claim that CenturyLink's wholesale rack rates are higher than its retail rates, subjecting it to a price squeeze.[228] CenturyLink has already addressed this allegation in prior filings.[229] In short, the notion that ILECs systematically charge wholesale rates that are higher than the corresponding retail prices is highly dubious, as is the notion that doing so in isolated instances can never be rational or justifiable. Moreover, given the substantial record evidence of increasing competition and steadily declining BDS prices, there is no reason to supplant market forces with a rule that specifically governs the relationship between wholesale and retail prices separate and apart from the pricing regulations that will apply in non-competitive markets. As Drs. Israel, Rubinfeld, and Woroch observe, the existence of market power is a condition precedent for executing an anticompetitive price squeeze, and "there is no evidence in the record that ILECs exercise market power for Ethernet services; to the

[227] Windstream July 25 Letter at 2-3.

[228] Windstream Comments at 39-44.

[229] *See* Mid-Size ILEC Comments at 79-81; Letter from Russell P. Hanser, Counsel to CenturyLink, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 2 (filed Apr. 7, 2016).

contrary, the evidence indicates that the marketplace for Ethernet services is highly competitive."[230]

Moreover, the proposed solutions offered to these imagined problems are impractical, if not nonsensical. In fact, Windstream's most recent ex parte filing encapsulates its apparent intent to advance whatever proposals come to mind, without regard to their actual utility. For instance, while there is no need to rely on benchmarking at all, doing so using international price points would be completely arbitrary, as that data bears no relation to geographic and cost conditions in this country.[231] And as discussed above, the very notion of a catch-up rate cut is inappropriate here.[232]

Ultimately, Windstream's complaint appears to be that it is unable to receive the profits it wants. Given the number of successful providers in this space, that does not appear to be a systemic dilemma, but rather, is a unique problem for Windstream. It is axiomatic that competition policy is intended to promote the interests of consumers, not specific competitors;[233] it is certainly not meant to effectuate wealth transfers from efficient providers to their rivals.

D. Claims Alleging Foreclosure of Competitors' Services are Baseless.

Consumer Federation of America ("CFA") and New Networks Institute ("NNI") claim that, as purchasers of BDS, large ILECs are engaged in a systematic effort to buy out-of-region services from the ILECs incumbent to those regions, thereby withholding their business from

[230] Third IRW White Paper at 33.

[231] Windstream July 25 Letter at 6.

[232] *Id.* at 5-6; *supra* Section I.B.

[233] *See, e.g., Brown Shoe Co., Inc. v. United States*, 370 U.S. 294, 320 (1962)

competitive suppliers in an attempt to "shrink" the market.[234] To the contrary, entities such as the Mid-Size ILECs, acting out-of-region as purchasers of BDS, obtain carriage from a wide variety of providers, not only from ILECs. The record evidence conclusively demonstrates that ILECs face strong incentives to shift their BDS purchases toward CLEC BDS offerings, and in fact have done so. For instance, in 2014, CenturyLink launched an initiative to reduce its access costs by proactively expanding its list of access vendors, while aggressively seeking lower rates from all of them.[235] In particular, CenturyLink pursued wholesale arrangements with cable companies to obtain Ethernet local access to commercial buildings. According to Carla Stewart, CenturyLink's Vice President–Cost Management, in January 2014 CenturyLink had access to **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** commercial buildings or addresses through non-ILEC providers.[236] As of November 2015, that number had grown to over **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** commercial buildings or addresses through non-ILEC providers, an increase of more than **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** percent since January 2014.[237] Likewise, Verizon has noted that it has entered into purchasing relationships with cable companies and obtains Ethernet services from them when "they are the

[234] Comments of the Consumer Federation of America and New Networks Institute, WC Docket Nos. 16-143 *et al.*, at 10 (filed June 27, 2016) ("CFA/NNI Comments").

[235] Comments of CenturyLink, WC Docket No. 05-25 (filed Jan. 28, 2016), Ex. 1, Declaration of Carla Stewart ¶ 2.

[236] *Id.* ¶ 3.

[237] *Id.*

best access option available,"[238] and AT&T has submitted evidence that it uses a number of alternative out-of-region suppliers for wireless backhaul and business services.[239]

Further, the comments of other BDS purchasers and suppliers in this proceeding belie any claim of market foreclosure. For instance, Cox states that it "has found numerous alternatives to ILEC provided services where Cox needs to supplement its own facilities-based BDS with another providers' wholesale offering."[240] In fact, Cox acknowledges that the majority of its Ethernet Type II services are obtained from providers other than ILECs.[241] Among BDS suppliers, Lightower, a competitive fiber provider, states that it operates in an "extremely competitive business" and that its customers "are sophisticated buyers who are well aware of alternative providers (including the ILEC) and aggressively seek the lowest price."[242] Mediacom, which operates in small and mid-sized markets, echoes this observation when it states that it "currently competes with ILECs, fiber-based competitive providers, smaller cooperative-based telephone companies, and municipal utilities when seeking to deliver BDS to wireless providers."[243] Lightower, for its part, states that it offers facilities-based alternatives to ILEC offerings, and that "for more than 99% of Lightower customer locations, the customer has

[238] Verizon Mar. 1 Ex Parte, Gunn/Higgins Decl. ¶ 17.

[239] AT&T Comments at 16.

[240] Cox Comments at 2.

[241] *Id.*

[242] Lightower Comments at 9.

[243] Mediacom Comments at 4.

three or more choices of broadband provider."[244] Put simply, CFA's and NNI's foreclosure allegations are not credible.

E. Claims Alleging Cross-Subsidization of ILEC Rates Are Meritless.

Contrary to claims raised by CFA and NNI, ILECs' BDS offerings are not cross-subsidized by other services. NNI's allegation of cross-subsidization by CenturyLink is premised solely on ARMIS data that is nearly ten years old,[245] and the use of such data to evaluate BDS costs and revenues has been thoroughly discredited.[246]

[244] Lightower Aug. 3 Letter at 2.

[245] CFA/NNI Comments, Attach. 1, at 1-3.

[246] *See, e.g.*, Qwest Corp. Reply to Oppositions, WC Docket No. 07-204, at 13 (filed Dec. 21, 2007) ("While arguably ARMIS data may have been of some value in determining whether Qwest's rates were just and reasonable under rate of return regulation, this is no longer the case under price cap regulation where the link between costs and rates has been severed."); Peter Bluhm & Robert Loube, *Competitive Issues in Special Access Markets*, at 70, National Regulatory Research Institute (2009) ("Buyers have criticized the FCC's current regulatory regime because it has apparently allowed excessive earnings. For their part, RBOCs contend that the ARMIS figures are virtually meaningless. We agree."); Harold Ware, Christian Dippon & William Taylor, NERA Economic Consulting, *Is More Special Access Regulation Needed? Reactions to the NRRI Report on Special Access Competition*, at 5 (Mar. 9, 2009) ("accounting profits generated from [ARMIS] data bear no relationship with economic profits and cannot serve any useful purpose in determining whether pricing flexibility has generated excessive rates of return"); Anna-Maria Kovacs, *Regulation in Financial Translation: The Importance of Current Data in the FCC's Special Access Proceeding*, at 11 (May 2012) ("the special access category [in ARMIS] post-2001 included actual revenues but frozen investment for special access, and also included DSL revenues (but not investment) for some (but not all) ILECs"); Declaration of Timothy J. Tardiff and Dennis L. Weisman in Support of Qwest Communications International Inc., WC Docket No. 05-25, ¶ 22 (filed Jan. 19, 2010) ("accounting profits, in general, and those reported in ARMIS, in particular, are highly misleading indicators of whether special access prices (or any other individual prices charged by an ILEC, for that matter) are above competitive levels").

VI. THE PROPOSED NEW INFORMATION COLLECTION IS EXCESSIVE AND SHOULD BE SUBSTANTIALLY REDUCED

The scope of the new mandatory information collection proposed in the FNPRM is far too broad and should be substantially scaled back.[247] While the Mid-Size ILECs support timely reporting of new competitive BDS service offerings (a necessary component of any effective regime going forward), the costs and burdens associated with much of the proposed collection would impose raise serious concerns under both the APA and the Paperwork Reduction Act ("PRA"). Several commenters have already questioned the utility of this information collection.[248]

Unlike the quantitative data collected in 2015, the new mandate would require BDS providers to disclose a wide variety of narrative information on the provider's BDS offerings, customer churn, services that are purchased, leased lines, and other internal company documents; this includes "[d]escriptions of how the provider structures its market operations to focus on particular classes of customers" and "[i]nternal business documents assessing competitive pressures in the marketplace and changes to business operations in response to competitive pressures."[249] The Commission should not require BDS providers to submit any of the categories of information included in paragraph 530 of the FNPRM.

The FNPRM initially proposes to require all BDS providers to collect and report every three years several categories of data that are similar to what providers reported in the 2015 data

[247] *See generally* FNPRM ¶¶ 522-34.

[248] Lightower Comments at 22-23; Cox Comments at 26-27; NCTA Comments at 75-76; Comments of the Rural Independent Competitive Alliance, WC Docket Nos. 16-143 *et al.*, at 1 (filed June 27, 2016) ("Rural Independent Comments").

[249] FNPRM ¶ 530.

collection.[250] These include locations where BDS providers have connections, billing data, BDS revenues, wire center data, fiber network maps and information on fiber nodes, and RFPs from competitive providers. However, the FNPRM proposes to radically expand the categories to encompass a vast array of other information about the BDS market and companies' business plans.[251] Such an extensive new reporting obligation raises serious legal and policy issues.

First, the FNPRM fails to explain why this information is necessary for it to identify where and to what extent BDS service has expanded in a market. It merely asserts that this information would help "to assist with updating the Commission's analysis" and "assess BDS demand."[252] But it does not demonstrate why this is so, and why the quantitative data listed in paragraphs 528-529 are insufficient for this purpose. The proposal thus fails to meet the APA's requirement that the Commission demonstrate through a sufficient factual record why a regulation is needed to achieve its underlying purpose.[253]

Second, the information to be collected under paragraph 530 would not comply with the Commission's obligations under the PRA. That statute requires the Commission to conduct a detailed assessment of the necessity, costs, and benefits of any information collection and to

[250] *Id.* ¶¶ 528-29.

[251] *Id.* ¶ 530.

[252] *Id.*

[253] *See, e.g.*, *Sorenson Commc'ns, Inc. v. FCC*, 755 F.3d 702, 708 (D.C. Cir. 2014) (agency's judgment "must be based on some logic and evidence, not sheer speculation"); *Prometheus Radio Project v. FCC*, 652 F.3d 431, 471 (3d Cir. 2011) (definition in new rule was arbitrary and capricious when the Commission failed to "show a connection between the definition and the goal of the measures adopted").

secure approval from the Office of Management and Budget.[254] While the Commission typically conducts the required PRA assessment after it adopts a rule pursuant to a separate PRA-required notice and comment period, it makes no sense for it to embark on that process for a collection that would clearly not meet the PRA's requirements. The FNPRM fails to articulate why reporting any (let alone all) of this information is necessary, what tangible benefits would accrue, and why those benefits would outweigh the burdens on BDS providers.

In fact, the burdens far exceed any possible benefits. The two categories quoted above alone would require each BDS provider to continuously track and maintain, for successive three-year periods, all company documents that may be responsive. Unlike quantitative data, these and other categories are exceedingly ambiguous, requiring business employees and counsel to devote significant resources to conduct broad searches for such documents and evaluate their responsiveness. The enforcement risk of non-compliance with such general and open-ended information collection will further exacerbate these costs. As Lightower notes, "[T]he burden of the [2015] data collection on Lightower was substantial, and the additional categories of information that paragraph 530 of the Business Data Services FNPRM suggests be added will only increase that burden."[255]

Third, the paperwork burdens that paragraph 530 would impose are particularly onerous because they involve entirely different information from what providers submitted previously.

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[254] Paperwork Reduction Act of 1980 as amended, 44 U.S.C. §§ 3501 et seq. The Commission must, among other obligations, "evaluate whether the proposed collection of information is *necessary* for the proper performance of the functions of the agency, including whether the information shall have practical utility," and it must "minimize the burden of the collection of information on those who are to respond." 44 U.S.C. § 3506(c)(2)(A) (emphasis added).

[255] Lightower Comments at 22 (citation omitted).

As Lightower notes, it "would need to build new systems to gather and disclose the data the FCC seeks to collect."[256] The Rural Independent Competitive Alliance cites the paperwork burdens as grounds to exclude their members entirely from any future collection.[257] And Cox warns that "most likely, given the additional areas for proposed collection, the costs would exceed those for the 2013 data collection. This cost, multiplied across the entire industry, is excessive and highly burdensome."[258]

Fourth, these requirements are excessive as to duration as well as to scope. Unlike the previous one-time data collection, the new periodic collection would be indefinite. Even though reporting would be every three years, BDS providers would need to track and preserve these documents continuously, exacerbating the burdens. The FNPRM fails to justify such an open-ended mandate on an entire industry and thus fails to meet APA and PRA requirements for this reason as well.

Fifth, the categories in paragraph 530 are unprecedented in the rulemaking context. They resemble the data production requests that the Commission typically sends to specific companies that have filed an application for approval of a merger or other transaction. In that case, the Commission tailors a data production to the companies' application. By contrast, this data collection would impose an *ex ante* mandate that applies to every BDS provider – and regardless of what the quantitative data show about the growth of BDS competition. It would deluge the Commission with an enormous amount of information from hundreds of

[256] *Id.* at 6.

[257] Rural Independent Comments at 2-3.

[258] Cox Comments at 27 (citation omitted).

companies,[259] yet most of the information would be irrelevant. The FNPRM fails to explain how the Commission would make effective use of all of this information. The Mid-Size ILECs are not aware of any such sweeping industry-wide generic fishing expedition to obtain all companies' strategic plans and other internal documents. As NCTA notes, "[T]here is no other service regulated by the Commission where the agency collects information at anywhere near this level of granularity."[260]

The proper and lawful course is to limit future data collections to the categories of information comparable to what was previously collected, and not require any of the additional categories listed in the FNPRM. Doing so will address the proposal's APA and PRA flaws while providing the Commission with sufficient information to monitor the future growth of BDS.

CONCLUSION

For the reasons set forth above and in the Mid-Size ILECs' opening comments, the Commission should take full account of all sources of BDS competition and, on that basis, reject proposals for expansive regulation of DSn- and higher-capacity facilities such as Ethernet and other packet-based services. The Commission should genuinely adhere to the principles espoused in the FNPRM and adopt a framework that relies on competition as much as possible, is technology neutral, removes barriers, and looks forward to tomorrow's marketplace, while still being administratively feasible.

[259] According to the FNPRM, 604 companies responded to the 2015 data collection. FNPRM ¶ 42.

[260] NCTA Comments at 76.

Respectfully submitted,

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August 9, 2016

Exhibit 1

REDACTED – FOR PUBLIC INSPECTION

DECLARATION OF JAMES MORRIS

1. My name is James Morris. My business address is 100 CenturyLink Drive, Monroe, Louisiana 71203. I am employed as Director–Network Facility Cost at CenturyLink. In this capacity, I oversee the selection and management of access providers for CenturyLink's non-ILEC affiliate, which operates across the country. In this declaration, I explain that CenturyLink frequently uses Ethernet services provided over cable hybrid fiber coaxial (HFC) facilities, particularly as a substitute for DS1 services.

2. In an earlier declaration, Carla Stewart described how CenturyLink routinely buys large quantities of fiber-based and HFC-based Ethernet local access services from cable companies throughout the country.[1] Based on this experience, Ms. Stewart thus disagreed with any suggestion that cable-provided Ethernet services, including HFC-based Ethernet services, are somehow inferior to, or less suitable for a typical end user than, Ethernet service provided by ILECs and CLECs.

3. CenturyLink's use of HFC-based Ethernet access has only accelerated since Ms. Stewart filed that declaration. For the first half of 2016, for example, **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**

4. HFC-based Ethernet services are a particularly good replacement for DS1 services, as DS1 customers transitioning to Ethernet services frequently look for capacities of

[1] *See* CenturyLink Reply Comments, Declaration of Carla Stewart, WC Docket Nos. 13-5, 05-25 (Feb.19, 2016).

3 to 10 Mbps, which are capable of being provided over HFC-based Ethernet services. HFC-based Ethernet services also offer prices and service level agreements (SLAs) that are comparable to those for DS1s. For example, **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** CenturyLink purchases HFC-based Ethernet services when they will meet the customer's needs. Frequently they do. **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**

5. Given the attractive pricing of HFC-based Ethernet services, CenturyLink now uses them to replace DS1 services. **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]**

6. Currently, CenturyLink can buy symmetric Ethernet speeds of up to 10 Mbps over HFC facilities. As Ms. Stewart previously noted, this accounts for a significant percentage of CenturyLink's current demand for Ethernet access services. There also is no question that the maximum speeds available over HFC facilities will increase over time, particularly with the rollout of DOCSIS 3.1.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed on: August 4, 2016

James Morris