

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

In the matter of)	
)	
Business Data Service in an Internet Protocol Environment)	WC Docket No. 16-143
)	
)	
Investigation of Certain Price Cap Local Exchange Carrier Business Data Service 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
)	

**REPLY COMMENTS OF
THE CONSUMER FEDERATION OF AMERICA
AND
NEW NETWORKS INSTITUTE**

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I. INTRODUCTION

In these comments, the Consumer Federation of American (CFA)¹ and the New Networks Institute (NNI)² reply to the recent round of comments in the above captioned proceeding.³ We also point out ways in which the recent final order in the IP transition⁴ interacts with the Business Data Services proceeding. Although the Commission notes that the BDS proceeding is separate, it is simply impossible not to take note of the connection between the two, and the first above captioned docket links the BDS market to the IP environment. Business Data Services are the core network services of an IP-based communications network implicated in both. Since the IP transition is about the transition to a fully digital network, the Commission should not be surprised to find that the link between Business Data Services and the IP transition

¹ The Consumer Federation of America (CFA) is an association of non-profit consumer organizations that was established in 1968 to advance the consumer interest through research, advocacy, and education. Today, nearly 300 of these groups participate in CFA and govern it through their representatives on the organization's Board of Directors and the annual Consumer Assembly. CFA has been involved in communications, media and Internet policy for decades in legislative, regulatory and judicial arenas and has advanced the consumer view in policy and academic publications.

² New Networks Institute (NNI), established in 1992, is currently a consortium of independent experts, analysts, auditors and lawyers; our new project is called "Fixing Telecom". NNI has conducted extensive analysis of the cost of telecommunications service in general and the misallocation of costs from special access to local service in particular. These have been filed in the above captioned proceeding and other directly related ongoing proceedings.

³ CFA and NNI recently filed joint comments in this proceeding, "Joint Comments of the Consumer Federation of America and the New Network Institute," *In the Matter of Business Data Services in an Internet Protocol Environment, Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans, Special Access For Price Cap Local Exchange Carriers, AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket Nos. 16-143, 15-247, 05-205, and RM-1-593, June 27, 2016. Hereafter, we refer to this docket as the BDS docket.

⁴ In the Matter of Technology Transitions, USTelecom Petition for Declaratory Ruling That Incumbent Local Exchange Carriers Are Non-Dominant in the Provision of Switched Access Services, Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers, GN Docket No. 13-5, WC Docket No. 13-3, RM-11358, July 15, 2016. (Hereafter, IP-Transition)

is clear and strong. A central issue is the abandonment of copper-based TDM services (in the IP-transition), or migration from TDM to Ethernet services (in the BDS docket). BDS and the IP-transition are intertwined like a DNA molecule. Indeed, BDS is the primary gene of the IP-transition.

Twenty years ago the Commission offered a theory of how competition would grow in a deregulated special access market. It weakened regulation based on the hope and hype of competition, which failed, resulting in hundreds of billions of dollars of excess costs imposed on consumers and the economy. Today, the Commission talks about building a bridge to the future with the IP-transition order, but the success or failure of that transition will be very much determined by the success or failure of the reform of regulation in the Business Data Services market.

CFA has been a strong advocate of building new regulatory regimes during times of technological change, bridges that advance economic efficiency and preserve the fundamental social values that we want our communications network to serve, but in doing so we must ensure that we are not building bridges to nowhere. Both the BDS and the IP transition orders do an admirable job in identifying the direction of change, but they have left many of the most important questions unanswered. Choosing the bricks to actually build the bridge is at least as important as setting the direction. If the foundation is flawed, the bridge may collapse. If the bricks are too few, you may be building a bridge that goes nowhere. If the bricks are too weak, the bridge will be pocked with potholes and the trip across it will be slow and perilous. The devil is very much in the details of bridge construction and the FCC order leaves the most important details blank.

II. RECOMMENDATIONS

Nothing in the recent comments filed in this proceeding or the IP-transition order leads us to conclude the fundamental challenges and question that we demonstrated must be addressed by the BDS order have been reduced in importance and scope. Moreover, the recently released IP transition order actually raises the importance of the BDS docket to an even higher level.

Cost and Price

The FCC should immediately lower current rates based upon the recalculation of the productivity index applied to the period since the initiation of the current docket (10 years). The result is approximately a 30% reduction.

At the same time, it must open a cost docket to determine the appropriate level of rates and the productivity factor. The cost analysis must be updated on a triennial basis.

Without the cost proceeding, the FCC cannot conclude that rates are just and reasonable because the alternative metric, competition, has failed and the reasonableness of the base rate is uncertain, at best.

Anticompetitive Contract Terms

The Commission has found a number of contract terms and conditions to be anticompetitive and the companies have failed to produce evidence to challenge that conclusion. The Commission is correct to ban all offensive terms going forward, but that is not enough.

The Commission must also establish a transition period in which all contracts that contain the terms that have been deemed anticompetitive are subject to a fresh look at the discretion of the purchasers of Business Data Services.

Defining Competitive Markets

The FCC should define competitive markets consistently with the well-established principles of market structure analysis. Actual competition for current consumers and small but significant non-transitory price increases are the core concepts. The empirical analysis filed by Dr. Baker supports our earlier filing. For the transition period where a fresh look is allowed, the Commission should define the building as the market. Markets with four or fewer competitors in the building are highly concentrated and should not be deregulated. In these markets, adding the eighth competitor (i.e. where seven exist, adding the 4th in-building competitor or the 4th in-block competitor) has an impact on price that exceeds the SSNIP criteria. Markets with four or more in-building competitors **and** four or more in-block competitors can be considered competitive. During the transition period the FCC should study the pricing patterns in the competitive spaces the thresholds define.

III. THE CURRENT STATE OF PLAY IN THE SPECIAL ACCESS MARKET AND PROCEEDING

At one level, after 10 years of filings in this docket, little has changes. The incumbent service providers, who inherited dominance of mobile and landline service and video distribution from the monopoly period before the passage of the Telecommunications Act of 1996 and still thoroughly dominate those services, insist that the competition is robust in the special access market, prices are at competitive levels and there are no supranormal profits. Purchasers of those services (including wireless providers, large users, unaffiliated Internet service providers, etc.),

competitors (like CLECs, and long haul transport providers) and public interest and consumer groups (who represent those who ultimately pay the bill) say the opposite.⁵

At the same time, some things have changed.

First, in recognition of the increasing importance and dramatic growth of these services, the FCC has changed the name to Business Data Services.⁶ This is much more than a cosmetic change and more important than the fact that this market is probably on the order of \$100 billion per year.⁷ Business Data Services have become an essential service to reach consumers using wireless communications or requiring large volumes of data or operating widespread networks that require always on connectivity (e.g. ATMs and the Internet of things). Business Data Services have become a central choke point in the ability of the incumbent service providers to dominate the local communications network. BDS has become a tool to exercise market power.

Second, the FCC has finally gathered data to test the hypothesis, implemented almost two decades ago, that competition would replace regulation to prevent abuse of market power. This was one of the first cases of premature deregulation under the 1996 Act and it has been an

⁵ Comments of NASUCA and the Maryland People's Counsel on Further Notice of Proposed Rulemaking for Business Data Services, BDS Docket, p. 3, hereafter, NASUCA, notes the long running opposition of carriers, customers and consumers to the FCC's, misguided special access policies., Throughout these reply comments, all references to the comments of others are to the most recent round of comments, file on or about June 27, 2016.

⁶ NASUCA, p. i.

⁷ The FCC puts the figure at over \$75 billion (\$77 billion in 2015), but that does not include a large amount of revenue that should be attributed to the BDS market, as explained below. The approach taken by the FCC does not recognize that wireless, broadband, and some small business customers are consumers of special access and BDS services. These are not counted in the category of revenues that the FCC expert used to estimate the size of the BDS market. Given that wireless and broadband account for the overwhelming majority of revenues, of the companies, the implicit value of BDS services not taken into account is well over \$20 billion, as discussed below.

abysmal failure. The FCC data show that market remains extremely highly concentrated, prices are far above costs, and profits are not merely supranormal, they are astronomical.⁸

Third, the record is so strong and things are so bad that one of the dominant incumbents communications companies (Verizon) has decided to concede that there is a problem. However, bargaining between a thoroughly dominant incumbents and a trade association of competitors (INCOMPAS), weakened by two decades of brutal anti-competitive practices to which the FCC turned a blind eye, has produced a statement of principles on the need for reform, but little agreement on the practical steps to that reform.⁹

The version of “reform” offered by Verizon, would do little to promote competition or protect consumers.

- It would lock in the current set of anti-competitive contracts, which not only impose massive overcharges on the public, but freeze out competition until the contracts expire.
- It would ensure prices remain far above costs by preventing the Commission from conducting cost studies to ascertain the current level of excess and locking in a future price capping mechanism that bears no relationship to the actual cost of service.
- It would deregulate large swaths of the industry, where there is little actual competition.

IMCOPASS is timid in several respects.

- It has not offered a definition of competition, although it questions the assumptions underlying the Verizon proposal (that four or more providers somewhere in a census block constitutes competition)
- It fails to demand a fresh look provision.
- It fails to specify the magnitude of the rate reduction that will render current rates just and reasonable.

⁸ NASUCA, p. I, puts the figure at \$40 billion per year.

⁹ While Verizon and INCOMPAS have put two documents in the record describing an agreement that reform of regulation of BDS is needed, their filings in the Further Notice demonstrate a severe continuing difference of opinion.

- It appears to accept a productivity factor that is less than half of the long term decline in costs.

The story of the Verizon-INCOMPAS proposal to regulate the Business Data Service is like the story of the Wizard of Oz. Verizon would like to set the FCC up as the Wizard – lots of smoke and mirrors, but ultimately a weak little man manipulating dials that are powerless to do anything meaningful. INCOMPAS is like Dorothy, a scared little girl whose team lacks a heart (a meaningful competition standard), a brain (a cost based methodology for identifying rates that are just and reasonable) and courage (the willingness to declare that buyers of BDS services who have had a corrupt, anticompetitive gun to their heads, should have a chance to extricate themselves from the unjust and unreasonable contracts they were forced to sign).

In the report we attached to our most recent comments in the special access docket we argued that special access is a critically important bottleneck or chokepoint in the digital communication network. Comments filed by the National Association of Consumer Advocates track our conclusions closely.

- Incumbent local telephone companies have a very large market share of the special access market that results in an extremely highly concentrated market.¹⁰
- At the same time, costs continue to fall dramatically due to the dramatic advance of the digital technological revolution.¹¹
- The resulting market power enjoyed by the dominant incumbents has been systematically abused to keep prices far above costs, resulting in a very high rate of supranormal profits.¹²
- The incumbents defend and extend their market power by imposing anti-competitive rates, terms and conditions on access to their near monopoly services. This undermined and reduced the ability of new entrants to compete in this market.¹³

¹⁰ NASUCA, p. 19.

¹¹ NASUCA, p. 24.

¹² NASUCA, p. i

¹³ NASUCA, p. 7.

- The abuse of market power combined with the illegal accounting for costs renders the contracts that have been forced upon the users of special access service invalid.¹⁴

These illegal cost accounting practices have harmed consumers of local service in two ways.

- The dominant incumbent local exchange carriers have misallocated costs, in violation of the explicit language in the Telecommunications Act of 1996 that prohibits the cross subsidization of competitive services like special access by regulated services.
- By artificially increasing the book costs of local service, the incumbents have made those services look less profitable than they are. They have used these cooked books, to seek rate increases at the local level.
- They are seeking to eliminate service based on traditional copper wires based on the claim that they not profitable.

These practices have harmed competition and threaten to permanently eliminate it in several ways.

- While the incumbent local telephone companies have incorrectly allocated special access costs to local consumers, they have not passed those cost savings through to the users of special access.
- On the contrary, they charge unaffiliated entities much higher prices for special access than they charge themselves. This price squeeze has a pervasive anti-competitive impact on the market.
- The profit margin is so high as a result of the misallocation of costs it not only creates the conditions for a highly damaging price squeeze on unaffiliated users of special access services, special access users also recognize that “resistance is futile” in the marketplace. With such a huge cushion of illegal, excess profits, the incumbents can easily respond to any threat of entry by lowering their price below the cost of the new entrant. Entry is thus continually deterred by this strategic overhang.

IV. THE VERIZON-INCOMPAS “DEAL”

While the Verizon-INCOMPAS “deal” has failed to address the fundamental elements of a reformed regulation of BDS, the agreement can provide the platform on which to build a solution.

¹⁴ NASUCA, pp. 6-7.

First, the finding that current rates terms and conditions are not just, reasonable and non-discriminatory requires the FCC to institute a policy that reverses that outcome.¹⁵ The Commission has found, and Verizon-INCOMPAS agree, that the market for BDS is highly concentrated, the vast majority of buyers in that market pay prices far above competitive rates, the terms and conditions in the contracts have been anticompetitive, and the formula for calculating a just and reasonable benchmark has allowed massive monopoly rents to be collected from buyers. Current rates are not just and reasonable.¹⁶

Second, Verizon and INCOMPAS agree that BDS services are fully subject to Title II of the Communications Act, at a minimum sections 201, 202, and 208.¹⁷ This applies to the service regardless of wherever it is sold and no matter what other services the provider of BDS service happens to sell. The FCC has not and should not abandon that authority, but seize and exercise it fully.¹⁸

Third, we agree that the Commission can and should design a regulatory system that allows flexibility and gives parties the incentive to work things out. But, it is critical to keep in mind that the desire for flexibility and “lite-handedness” in regulation cannot come at the expense of the fundamental obligation of the Commission to only approve rates that are just, reasonable and non-discriminatory.¹⁹ The devil is in the details

¹⁵ NASUCA, *passim*.

¹⁶ NASUCA, p. 2, 8.

¹⁷ NASUCA, p. 8-9.

¹⁸ This is clear in two respects in the record. The analysis of the FCC economists shows that even if cable were to participate in the wholesale market for access (as opposed to self-supply as it currently does) it would not deconcentrate the market substantially. Second, Verizon argues that it has failed to make its services available in the market (p. xx).

¹⁹ NASUCA, p. 18.

Verizon wants the Commission to ignore the past and build the future on an illegal foundation. It urges the Commission not to conduct an examination of the cost basis of current rates and to leave all of its corrupt contracts in place until they expire. This guarantees the unjust and unreasonable rates will be charge for years to come. The FCC cannot do so.²⁰

Verizon then wants to define competition in such a way that it leaves customers in highly concentrated markets subject to the unfettered abuse of market power. Two decades of real world experience contradicts the claim that potential competition will prevent the abuse of market power that are currently highly concentrated.²¹

The hope that the removal of the onerous contracting conditions might help to spur future competition is just that, a hope, and a hope that must be tempered by the fact that the competitive fabric of the industry has been destroyed by years of anticompetitive behavior. The inability of competitors to extend service within overly broad definition of the geographic market rests on basic economics, not artificial barriers to entry (like the contract terms the Commission has banned going forward).²²

²⁰ NASUCA, p. 25, points to the “productivity increase in the past decade” as a basis on which to reinitialize rates immediately and an ongoing process through which “the FCC should establish economically sound elements such as productivity factor, consumer dividend baskets and pricing bands.” We do not believe it is possible to achieve these outcomes without conducting a cost study.

²¹ The failure of the ill-considered deregulation of special access must weigh heavy on the FCC’s actions, a proposition offered numerous times by NASUCA, (p. ii, 21, The FCC should not presume competition, as it did in with the earlier regime... Consumer advocates reiterate the view they have stated in various FCC proceedings that thy FCC should not rely on *predictive* judgements to make determinations about the level of competition that exists *presently* in relevant markets. , p. 29 - 30, notes “the enormous cost to consumers of misaligning BDS rates over an extended period of time under the pricing flexibility regime, the Commission should not be so quick to sacrifice accuracy to regulatory expediency.” These are, after all, services subject to the same non-competitive conditions in which incumbents have been able to “negotiate” their way to the inflated rates and unreasonable terms and conditions that the Commission plan seeks to overturn in connection with TDS-based BDS

²² NASUCA, p. 18-19, arguing that the market should be defined at the building level.

Competition

The claim that competition in the market will ensure rates are just and reasonable has been so wrong for so long in the BDS market that the Commission must be extremely cautious in establishing a safe harbor in which competition is presumed to be effective. The Commission must not define highly concentrated markets as competitive. A market with four equal sized competitors would be just at the threshold of highly concentrated. In the BDS market we know that the incumbent local exchange carriers have a much larger share than their competitors. Many of the markets would be highly concentrated. Indeed, because the advantages inherited by the incumbents from the monopoly period are so great, we believe that the Commission would be mistaken to presume that even moderately concentrated markets are competitive, particularly given the barriers to entry and historic behavior of incumbents in BDS markets.²³ The analysis presented by Baker supports this view.

In light of over fifteen years of failure of entry or potential competition to deconcentrate BDS markets and restrain pricing abuse, the Commission must cease basing policy on hope and hype. Hypothetical and potential competition have failed. Therefore, the Commission must base its safe harbor definition on actual competition. Verizon and INCOMPAS have arrived at an impasse on this issue. Verizon says fiber anywhere in a census block should be counted as potential competition, even if it does not go to any buildings (it is dark fiber that has sat idle). INCOMPAS says that service providers actually serving customers in a building is the proper way to count actual competition. The latter has much more merit.²⁴

²³ Comments of Public Knowledge, BDS Proceeding, p., advocates use of the Department of Justice *Merger Guidelines*, on which this analysis is based.

²⁴ NASUCA, p. 16.

The possibility exists that once the anticompetitive terms and conditions, which strangled competition, are removed competition will come to life. That proposition needs to be tested before the Commission adopts an safe harbor. The purchasers of BDS service need a period in which they can seek alternative sources of supply, unencumbered by the illegal contracts, so that the Commission can determine what the extent of actual competition in the market can be.

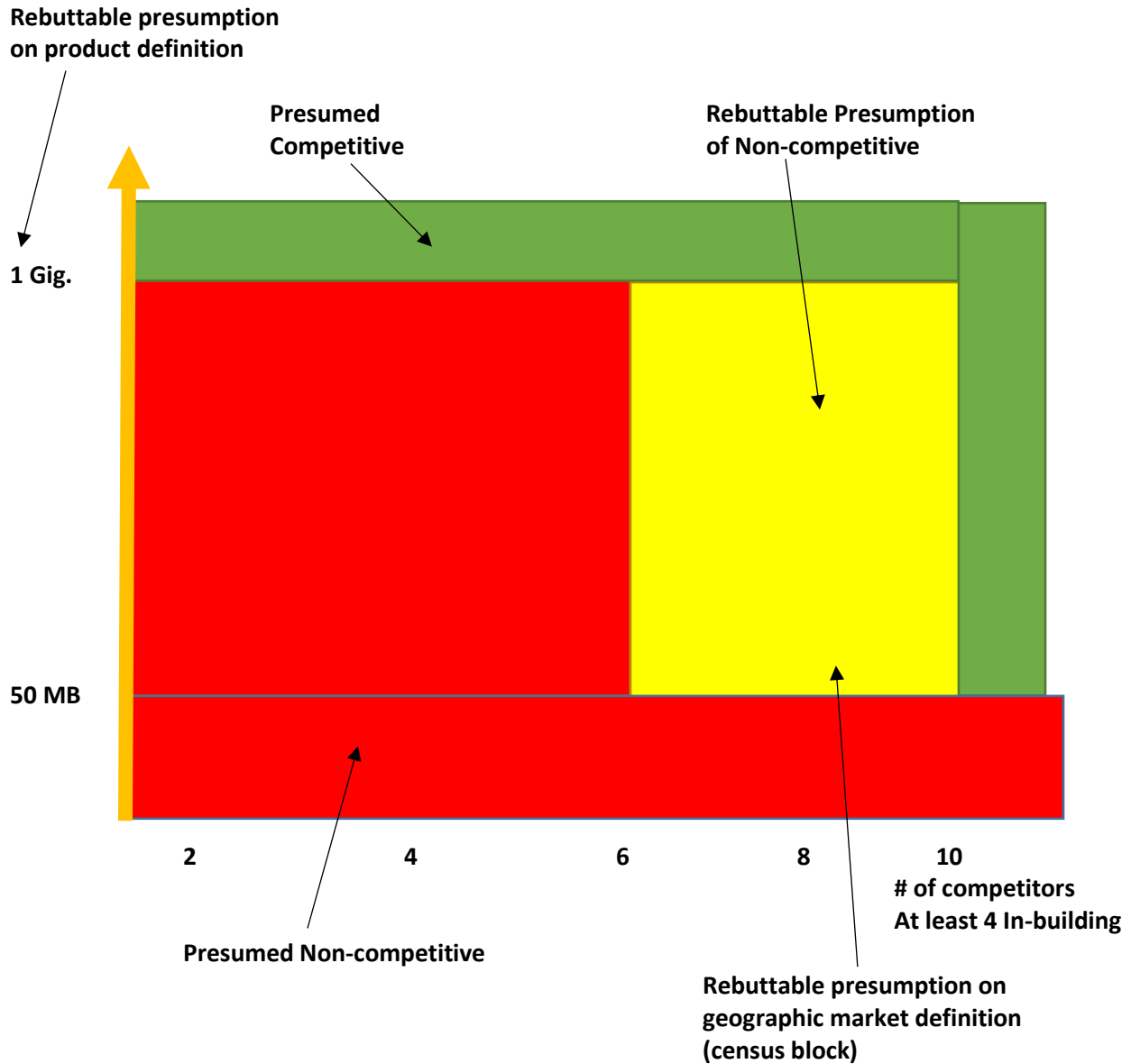
The map of competitive conditions that the FCC should establish for the transition period, is described in Figure 1. It is a complex picture because Verizon has defined each of the potential parameters of the safe harbor scheme to preserve its market power. The Commission has been asked to establish unregulated safe harbors for services above 1 Gig, in census blocks with four or more fiber cables somewhere in the block, even if fewer than four are providing service to customers at any specific location.

While there is general agreement that the product market below 50 MBS are not competitive, there is debate about whether services above the gigabit level are competitive.

A separate question arises as to what level of competition should be considered adequate to provide a safe harbor. At one level, the proof will be in the pudding of how much competition develops at specific market sizes during the transition. At another level, there is a theoretical answer that should be the starting point. In analyzing competition and non-cooperative games there is an expression “four is few and six is many,” which has gained currency in the context of the analysis of non-cooperative games that is reflected in the 2010 revision of the *Merger Guidelines*. However, we believe that, until the revision proves its value and effectiveness, the correct rule of thumb should reflect the long-term view of competition, i.e. “four is few, six may be okay, and ten is many.” Consistent with this view, Jonathan Baker’s analysis of the FCC data

shows that there are significant reductions in price with additional competitors added up until the eighth (i.e. the fourth in building competitor and the fourth in block competitor),²⁵

FIGURE 1: PRODUCT AND GEOGRAPHIC MARKET DEFINITION AND COMPETITIVE SAFE HARBORS.



We recognize that in infrastructure and communications industries four is a big number that markets struggle to reach, but that should not be an excuse to abandon the fundamental

²⁵ Baker, comments, *passim*.

principles of analysis of competitive economics; it should be a warning flag that market power pervades these markets. Duopolies should never be assumed to be competitive.²⁶ Situations where there are three or four relatively equal sized competitors engaging in actual, head-to-head intramodal competition, could be candidates for lite regulation, but still demand regulatory back stops to prevent strategic gaming that is prone to arise in such a situation.

The theory that someone “could” serve a customer has failed. It must be tested. Given that the Commission must find that rates are unreasonable today and the theory of potential competition has failed, it must start with a real world test and can only declare rates to be just and reasonable where actual workable competition exists

Rate Setting

The Commission needs a transition period in which to conduct the proper cost studies to establish a firm legal basis for finding that regulated rates are just and reasonable.

In light of fifteen years of failure of entry or potential competition to deconcentrate BDS markets and restrain pricing abuse, the Commission must cease basing policy on hope and hype. The claim that rates cannot be pushed down to competitive levels, but must leave rents in the market to induce entry, must be rejected. It is time to set rates at levels that truly competitive markets would yield and allow efficient entry to push them down from that level.

V. THE IMPORTANT AND DIRECT RELATIONSHIP BETWEEN THE BDS MARKET AND THE IP-TRANSITION

We have noted the close relationship between the IP-transition and the Business Data Services and central role that Business Data Services play in the IP-transition. This relationship

²⁶ NASUCA, p. 21.

demands careful consideration in many proceedings the are ongoing. Here we highlight several issues in the BDS proceeding that require Commission action. The first issue involves the definition of market power and a fundamental inconsistency between the IP-transition order and the BDS docket.

The second two issues involve the most fundamental building blocks of the analysis of the communications network – the counting of lines and the allocation and recovery of costs. The empirical data behind the concerns we raise is presented in the final section of these comments. That analysis is based on the FCC data concerning market structure. The analysis of financial results is based on Verizon reports to the SEC and to the New York State Public Service Commission, including the most recent, 2015, filing. The analysis shows exactly what Verizon is trying to sweep under the rug with its proposal that the Commission move forward without cost studies.

The Definition of Market Power Used in the IP Transition Docket is Wrong and Woefully Inadequate for the BDS Market

The FCC asserts that the existence of price caps is a sufficient basis on which to conclude that even if the incumbents were incorrectly classified as non-dominant, they could not harm consumers because they could not increase prices.²⁷ That definition of market power abuse misses an obvious, and the most important, potential abuse of market power. It directly contradicts the recent and correct definition used in its most recent tariff docket.²⁸

Establishing a price cap during a time of dramatic technological change that is lowering costs leaves open the question of whether competition is strong enough to force firms to pass the

²⁷ IP-Transition. ¶¶ 26-32. In taking recourse to this incorrect definition of market power, the FCC explicitly admits it has failed to do the proper market structure analysis. As a result, the non-dominance determination has no meaningful analytic basis.

²⁸ NASUCA, p, 25.

cost reductions through to consumers in a manner that is consistent with the welfare economics of competitive markets. As we have shown in the case of special access, the price cap has failed to prevent the abuse of market power. The profit margin has gone through the roof because costs are falling so rapidly and competition is extremely weak.

In a sense, the Commission has recognized the problem by recalculating the productivity factor, finding that rates have been held far above costs because real world productivity was improving much faster than the price cap assumed. The dominant incumbent local exchange carriers have pocketed the difference as rents. In a competitive market, a large share of the available surplus would have been passed through to consumers. The CFA paper attached to our initial comments explained the first issue – the definition and measurement of market power – in detail. The FCC must use a consistent and correct definition of abuse of market power across all these dockets.

Counting Lines

The IP Transition Order bases its conclusion, in part, on the dramatic decline in the number of local switched access lines and it points to the growth of new services, like wireless and VOIP. This explanation is inadequate in three respects.²⁹

First, it misses the dramatic growth in special access lines (now known as Business Data Services), as dominant incumbent local exchange carriers have migrated services from the local exchange category to the special access category. For many customers, special access has become the “last mile” service. Moving from switched access to special access for these customers tells us nothing about how, or whether, the market power of the dominant local exchange companies has been affected.

²⁹ IP-Transition, ¶¶ 13-16.

Second, the Commission fails to note that both of the services to which it points as the cause of the declining number of switched access lines, wireless and VOIP- based voice services, are dependent on Business Data Services. They simply cannot function without special access services that connect them to the local network. The market power that the dominant incumbent local exchange carriers had by controlling the terminating monopoly – the network interface at the end-user premise – has been transferred to the market power they possess at the first point of network interconnection, i.e. the special access point of service. While it may well be that dominance in local switched access has declined, the empirical evidence gathered by the Commission in the special access proceeding shows beyond a shadow of a doubt that dominance, i.e. market power, continues to exist in the Business Data Service market.

Third, it is not even entirely clear how much the market power of the dominant incumbent local exchange carriers has declined in the last mile. The Commission must recognize that the dominant local exchange carriers still dominate the terminating service because they are the overwhelmingly dominant providers of the network facilities over which VOIP service flows and they are the dominant providers of wireless service, by far. In other words, they not only control the bottleneck BDS point of service, they also control much of the technology between that point and the end-user premise.

The effort to segregate and limit the oversight over the technology transition by restricting it to voice service is misguided and doomed to fail because the provision of voice service ultimately depends on the provision of broadband (62, 66). True broadband is still very highly concentrated.

The dominance finding with respect to interstate switched access does not apply to any other service. The incumbent local exchange carriers and cable operators can be dominant in

Business Data Services, broadband and wireless, all of which are vital to the delivery of voice service in the post-transition world. Market power in the provision of Business Data Services clearly affects competition and consumers in the provision of wireless and voice services.

The problem of dependence on the incumbent local exchange carrier for essential facilities or critical inputs is evident in the discussion of 1st party v. 3rd party provision of replacement services. The continuance of unbundled network elements and the regulation of special access to ensure just, reasonable and non-discriminatory rates terms and conditions for 3rd party interconnection are vital to any regime that contemplates substitution of 3rd party services for services abandoned under section 214.

Cost (Mis)Allocation and Cost Recovery

Cross-subsidy: Given the potential rents created by declining costs, even under a price cap regime, there is another respect in which market power may be manifest that is extremely important in the BDS market – the ability to cross subsidize services and squeeze competitors.³⁰ The misallocation of costs harms consumers and competition, as noted above.

Transition Costs: The FCC has concluded that abandonment of copper requires the incumbent local exchange carrier to ensure comparable services are available at comparable prices. For some customers, especially small businesses, the cost of customer premise equipment may be a major obstacle. If the new transmission medium renders customer premise equipment obsolete or unusable, the incumbent carrier should be responsible for providing customer specific work arounds or foot the bill for the purchase of new equipment.

³⁰ The Commission recognizes the important role of cross subsidy in the assessment of competition (IP-Transition, ¶10), but has ignored clear evidence of this problem in Business Data Service.

Subscriber Line Chargers, without Lines; Since the Commission has declared that incumbent local exchange carriers who provide local switched access are no longer dominant and will allow them to pull the copper loop out of the ground without specifying the technology that will be used to replace the first mile connection, a question arises as to the appropriateness of the continued collection of the subscriber line charge for transitioned customers. If the replacement technology is a fixed wireless or other technology, we doubt the appropriateness of the \$6.50 per month subscriber line charge.³¹ If the old technologies go away, maybe the costs do too. The Commission must look carefully. Indeed, the current level of the subscriber line charge is antiquated, having preceded the massive digital revolution that is driving the IP-transition. The same cost declines we have shown for special access apply to the entire network. It is time to revisit the justification for the subscriber line charge and its level.

While the FCC persistently removes constraints on the incumbent local exchange carriers and cannot help but notice that the states have done the same, it continues to allow the incumbents to collect additional funds that were justified by the very constraints it is removing. Exactly when the contradiction becomes so blatant that it can no longer be ignored (i.e. when it results in rates and charges that are unjust and unreasonable) will require a careful analysis and there is no better time to start than the formal initiation of the regulatory IP-transition).³²

VI. EMPIRICAL EVALUATION OF KEY FCC CLAIMS AND FINDINGS

In this section we present key empirical evidence based on data market structure and pricing from the FCC economic analysis data on financial performance for Verizon based on income filings at the SEC and the New York Departments of Public Service. Our purpose is to

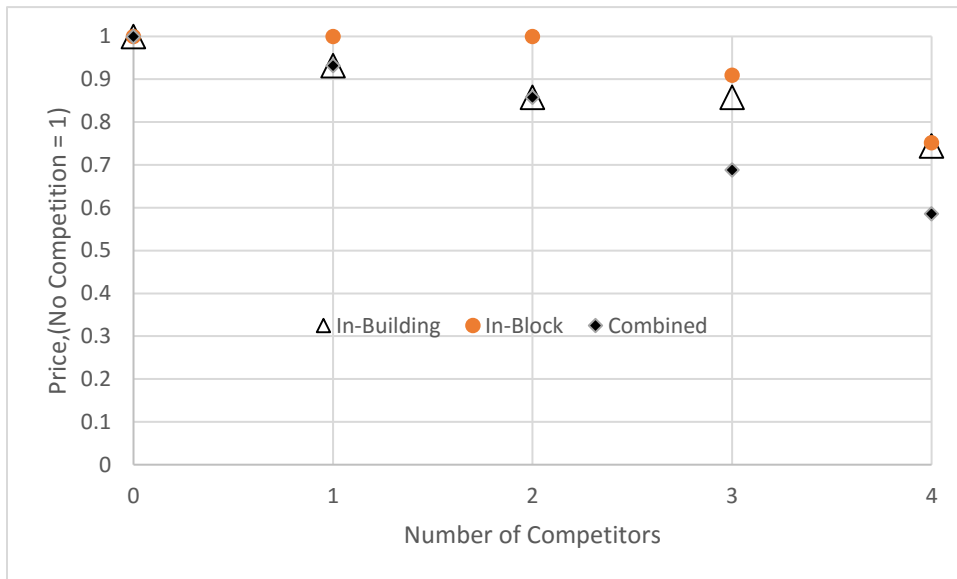
³¹ IP-Transition, ¶ 56.

³² IP-Transition, ¶ 36.

show that the FCC needs to conduct the cost and competition and cost analyses we have identified as part of the transition to a new regulatory structure for the Business Data Services Market.

Figure 1 summarizes the regression analyses of Jonathan Baker that extend the analysis of the FCC expert. His analysis accepts the basic approach taken by the FCC expert and elaborates on it in several ways. He analyzes only high bandwidth services, since there is a consensus that low bandwidth services are not competitive. He includes the presence of cable. Baker analyzes the effect of in-building v. in-census block competitors independently. Baker’s analysis is decisive in several respects.

FIGURE 1: PRICE IMPACT OF IN-BUILDING AND IN-BLOCK COMPETITORS



Source: Jonathan Baker, Table 1, column 8.

- First, in-building competition has an immediate and larger effect.
- Second, in-block competitors do not have an impact until the third competitor is added.
- Third adding the eighth competitor lowers prices by about 10 percent, which exceeds the SSNIP standard.

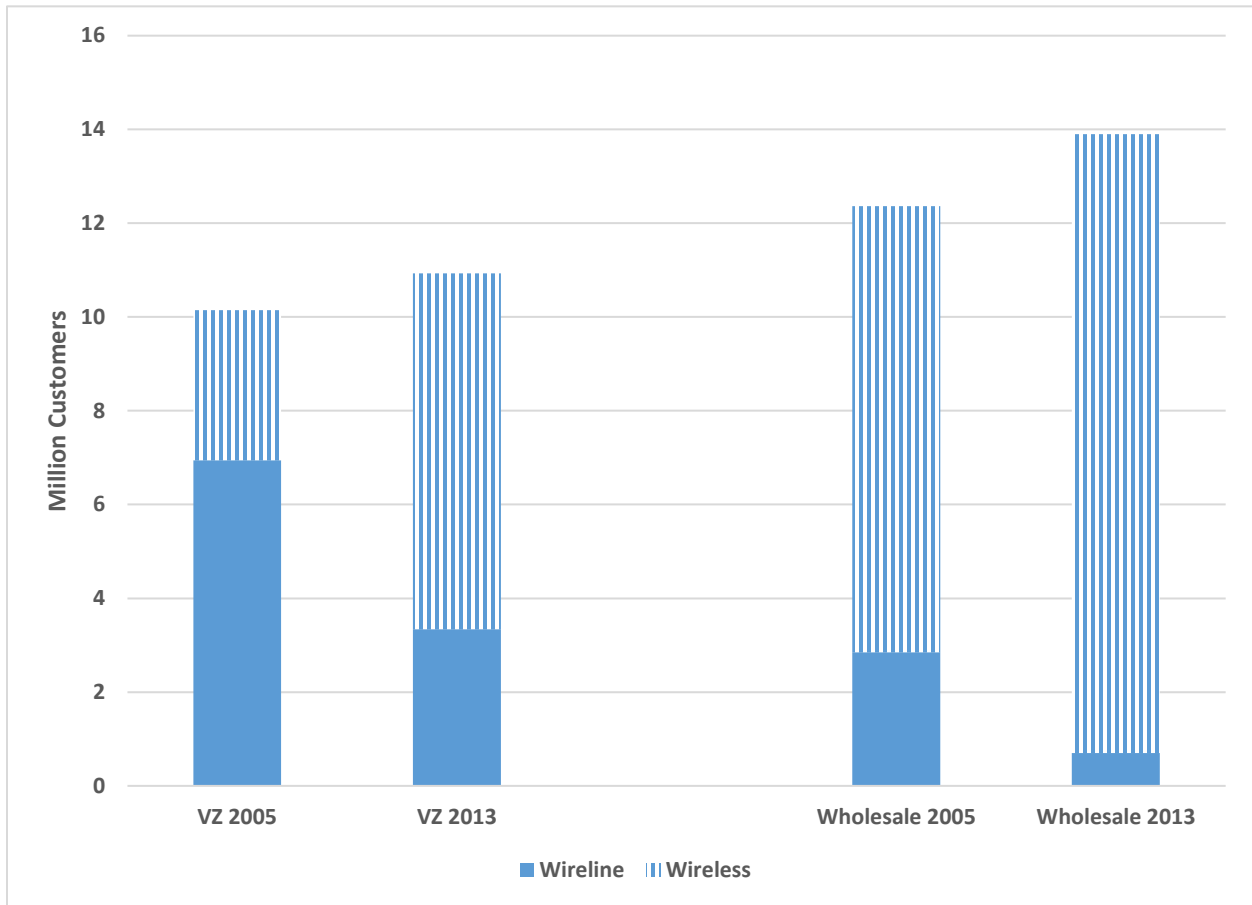
This is consistent with our general conclusion that “4 is few, 6 may be okay and ten is competitive.”

VII. LINE COUNTING IN THE IP-TRANSITION

In this section we focus on Verizon because it has agreed to the proposition that there are severe market power problems in this market. We also have access to financial data for New York that moves beyond the very aggregate data that is publicly available to gauge financial performance. When the FCC stopped publishing data the New York Department of Public Service (NYDPS) continued to require Verizon to file financial data. The FCC cannot regulate these markets without having a clear and consistent view of its size, which must start with the counting and classification of the number of lines. This not only is a key to understanding where market exists, it is also central to the allocation and recovery of costs.

The empirical basis for the finding of non-dominance is suspect and must not be used to suggest that there is no problem of market power in the local access market. Figure 2 shows the change in voice customers. We observe that Verizon has experienced modest growth of customers, about 7 percent. We estimate the wholesale special access market by excluding cable, which is likely to be self-supplying special access. The rest of the market, made up primarily of out of region wireless service providers has grown by about 16 percent. Since Verizon is the dominant special access provider, it has probably garnered the lion’s share of that market. These are voice circuits only. Internet data circuits grew much more rapidly, increasing over 30% per year for the decade between 2005 and 2015.

FIGURE 2: VERIZON NEW YORK VOICE CUSTOMERS SHIFT BETWEEN TECHNOLOGIES



Source: Department of Public Service, In the Matter of a Study on the State of Telecommunications in New York State, Staff Assessment of Telecommunications Services, Case 14-C-0370, June 23, 2015, pp. 15-16.

Table 1 shows the level of concentration measured in a number of ways across product markets defined as discussed in our earlier filing in this docket. Using a broad market definition, the voice market has deconcentrated to just below the highly concentrated level and Verizon’s market share has declined, but it is still quite high. Viewed through the other lenses of more narrow market definition that we have argued are more appropriate, there is little justification to change the classification of Verizon. Markets are highly concentrated, Verizon is the dominant player, and the virtual cartel dominates the New York Market.

TABLE 1: INDICATORS OF CURRENT VERIZON NY VOICE MARKET STRUCTURE

Product Market	HHI for Voice		Verizon Share (%)		Cartel Share (%)	
	2005	2013	2005	2013	2005	2013
All	2502	2367	43.5	37.7	62	75
Wireline	4948	4251	64.9	40.7	73	91
Wireless	2191	2768	25.4	36.5	42	69

Source: Department of Public Service, In the Matter of a Study on the State of Telecommunications in New York State, Staff Assessment of Telecommunications Services, Case 14-C-0370, June 23, 2015, pp. 15-16. The Cartel analysis treats all cable as one operator included in the cartel.

VIII. FINANCIAL ANALYSIS OF THE BDS MARKET

Since the FCC has stopped collecting financial data on special access and the companies have failed to file any meaningful data on the cost and profitability of these services in this proceeding, it is difficult to analyze the financial performance of these services. Projecting price and cost trends from the last available financial data we have argued that the market is generating \$20 billion in excess profits. That estimate was based on an estimated market size of \$40 billion. In fact, the FCC puts the BDS market at \$75 billion. The line counts above, suggest that a substantial portion of the special access market has been shifted into the local jurisdiction under the heading of wireless and broadband services, a shift that is not accounted for in the FCC's estimate of the size of the market. With 75% of the Verizon's income coming from these services that rely on special access, we think the market could be as large as \$100 billion. This is a critical analysis that must be a focal point of the proceedings we have recommended. Some commenters put the overcharges at \$40 billion.³³

Here we take a different approach to the excess profitability question. Matching Verizon corporate financial data with detailed filings in the state of New York we estimate EBITDA for various market segments. The analysis supports the conclusion that there are tens of billions of

³³ NASUCA, p, i

dollars of overcharges and we urge the Commission to conduct a thorough cost studies to sort these issues out.

In table 2 we present three views of Verizon financial performance. We compare the Verizon SEC annual report to the New York financial filing. In New York, we present two views of the data that differ in how we treat Ethernet-based access. Two views are necessary because of the ambiguity in the treatment of Ethernet-based access, which is likely a part of the IP-services included in the Strategic Services category reported in the VZ-SEC.

TABLE 2: VERIZON SEC AND NEW YORK WIRELINE FINANCIAL DATA: 2015
(All figures are in %)

VZ-NY as a % of VZ-SEC	VZ-SEC	VZ--NY	
		Ethernet included	
		No	Yes
Revenue		14	17
Expenses		11	11
Depreciation		16	16
Cost as a % of Wireline			
Cost of Service	55	62	62
Selling	14	16	16
Depreciation	18	20	20
Revenue as a % of wireline			
FIOS	34	28	21
Local Service	15	19	18
BDS	52	58	58
Access (Core & Wholesale)	29	29	33
2 Other BDS (Strategic & Other)	23	29	26
EBIDTA Margin			
Wireline	23	30	30
Local Service		-51	-51
Access		67	80
Wireless	43		

Source: VZ-SEC, Verizon, Annual Report, 2015, pp. 19-24. FIOS is 79% of customer retail, Local service is 21% of customer retail plus small business. Access includes global enterprise and global wholesale. VZ-NY, Annual Report of Verizon for the Year Ended December 31, 2015, to the State of New York Public Service Commission, Schedule 9. Other Revenues of \$1.5 billion are included and attributed to other BDS services. All nonregulated revenues are assumed to be FIOS.

First, in the upper part of the Table 2 we align the Verizon SEC data with the New York financial data. In 2015, without allocating Ethernet-based services to the New York financial reported to the state, VZ-New York represented 14% of Verizon wireline revenue and 11% of expenses and 16% of depreciation. With Ethernet, revenue was 17%. For the reasons stated below, we do not attribute additional Ethernet costs costs to the New York Jurisdiction.

The Verizon SEC data identifies a wireline segment that includes consumer and small business retail in the mass market category. This includes FIOS revenues, which Verizon estimates to be about 34% of wireline revenue. In the New York data, the category of nonregulated services (made up largely of FIOS) equals 22% of the wireline revenue. The difference in the FIOS share results from the fact that some FIOS revenues (e.g. video) are not reported as telecommunications revenues in New York.

This is an important issue for cost allocation, since FIOS costs appear to be reported as local, but these revenues are not. For example, the New York financials show that just 4% of the current plant are classified as FIOS and only 9% of plant under construction are classified as FIOS, compared to 28% of revenues that are attributed to FIOS. To the extent that FIOS uses special access, this misallocation might impact the estimates of costs and profits, but the bigger question here is whether costs are being dumped on regulated local service to subsidize competitive services.

The BDS category poses a similar problem. Verizon identifies several type of service that appear to be access services.

Global Enterprise offers strategic services and other core communications services to medium and large business customers, multinational corporations and state and federal government customers...

Global Wholesale provides communications services including data, voice and local dial tone and broadband services primarily to local, long distance and other carriers that use our facilities to provide services to their customers.³⁴

Strategic services are defined as follows in the 2008 annual report.

Our strategic IP-based services are the essential building blocks for the integrated communications and IT solutions that Verizon Business offers worldwide... In 2008 we expanded and improved what was already one to the worlds few truly global networks, resulting in enhanced speed, availability, diversity and resiliency for business and government customers worldwide. These improvements were part of approximately \$17 billion we invested last year building, operating and integrating our advanced broadband wireless and wireline networks.³⁵

Here we have the thorough interweaving of the IP-transition, access and broadband.

Strategic services clearly include Ethernet-based access services which is a large part of the BDS market, but are not reported as local telecommunications in New York. The FCC has identified the distinction between services based on TDM technology and services based on Ethernet as important. It concludes that Ethernet-enabled special access represents over 40% of special access. Verizon reports this in the SEC financials as wireline, but does not report it in New York. The far right column in Table 2 assumes that Ethernet-based access represents 40% additional access revenue, compared to the base of access revenue reported in New York.³⁶

Whether or not that should be reported as New York revenue, the existence of that revenue raises the profitability of access services substantially, as shown in the lower part of Table 2.

The lower part of Table 2 shows the standard estimates of EBITDA for four categories of services, mass market, local service, access and wireless. Mass market and wireless are from the SEC filing; local and access are from the New York filing. The fact that local service shows a

³⁴ P. 23

³⁵ Annual report, p. 10.

³⁶ Because the cost of services and depreciation in the VZ-NY financials are higher than the VZ-SEC books, we do not attribute additional costs. To the extent that there are additional costs that should be accounted for in the NY financial, the margin would be lower.

severe loss (-51%) and access is immensely profitable (+67%) reflects in part the misallocation of costs, but for the present purposes, the critical factor is that access is the most profitable service. Including the Ethernet-based revenue could boost that to as much as 80%.

IX. BUSINESS DATA SERVICES AND VERTICAL LEVERAGE IN DIGITAL COMMUNICATIONS NETWORKS

In the initial and reply comments we have shown that the threat of abuse of market power in the BDS market is severe. Because the BDS market is located at a critical point in the supply chain for the supply of mobile, broadband data and video service, it is a powerful instrument of vertical leverage. Its role as a choke point, bottleneck or essential facility in the emerging communications network should not be underestimated.

In the discussion of the horizontal *Merger Guidelines*, we made the point that, while they embody concerns about the impact of mergers on competition and consumers, in the case of highly concentrated markets there are policy concerns that go well beyond mergers. The fact that even mergers that shift market share very slightly trigger strong concerns in highly concentrated markets suggests that market power is pervasive and the basis for the abuse of market power is strong. A recent article by Salop and Culley made the case that vertical market power deserves more systematic attention in merger review based on the identification of four dozen potential anticompetitive impacts of vertical mergers.³⁷ Because the Business Data Service market is very highly concentrated, we believe these merger-tied concerns should be general policy concerns.

³⁷ Steven C. Salop and Daniel P. Culley, 2015, “Revising the U.S. Vertical Merger Guidelines: Policy Issues and an Interim Guide for Practitioners,” *Journal of Antitrust Enforcement* (forthcoming)

These were discussed in seven categories of impacts: input foreclosure, customer foreclosure, unilateral incentives, coordination effects, information and impact on mavericks, raising prices, evasion of regulation. They note that there is overlap in the specific impacts.

Table 3 combines the 48 impacts into 25 concerns. The Appendix provides the full language from the paper. It shows that the BDS market exhibits characteristics that would make the abuse of vertical market power a great concern. Market power is great, the incentive to abuse it is strong and the competitive fringe is weak.

There is a strong similarity between this list and the EU Guidelines on Non-Horizontal mergers, so there is no need to repeat the analysis. It is interesting to note that the EU identified conditions that are red flags for concern, several of which are clearly present in the BDS market, i.e. firm market share of 30% or more; HHI of 2000 or more; and presence of past or ongoing coordinating or facilitating practices.

For all of the above reasons, we believe the FCC must take the more aggressive steps outlined in the recommendation section in order to establish the legal basis for concluding that rates, terms and conditions in the BDS market are just and reasonable.

TABLE 3: CONCERNS ABOUT VERTICAL LEVERAGE IN HIGHLY CONCENTRATED MARKETS APPLIED TO THE BDS MARKET

Concern	Short Description	Conditions in BDS Market
	Input Foreclosure (IF)	
1	Market Structure	Extremely highly concentrated
2	Ability of fringe to compete	Limited due to high cost, low market share
3	Behavior of integrated firms	Multiple exclusion strategies
4	Impact of contractual terms	Layers of anticompetitive conditions
5	Availability of substitute inputs	Limited
6	Incentives of other firms to parallel	Strong in-region and reciprocity out-of-region
7	Ability to undermine competition -- withholding, quality degradation, or price increase	Demonstrated in input and output markets
8	Competitive fringe ability to constrain	Price competition is weak or non-existent
9	Pass through of variable cost	Yes
10	Ability to capture customers	Incumbents dominate with 80% market share
11	Impact of reciprocity	Extensive
	Customer Foreclosure (CF)	
12	Bargaining leverage	Overwhelming
13	Ability to self-supply	In-region, absolute
	Unilateral Incentives (UI)	
14	Earning on input, compared to retail product	Rapid growth in BDS services
15	Relative margins	High margin on BDS services
16	Barriers to entry	Substantial
17	Vulnerability to coordination	Significant and demonstrated
18	Incentive to deal with independents	Nil in-region, small out-of-region
19	Access to and use of competitively sensitive information	Dominance puts fringe at a severe disadvantage
20	Who are the mavericks and how do firms behave toward them	All non-incumbents behave as mavericks
	Price Increases (\$)	
21	Cost symmetry	Asymmetry between incumbents and competitors
22	Cost and ability to punish market participants	High margins create strategic tool
23	Balance of upward and downward pressure on prices	Persistent rising prices, increasing profits
	Evasion of regulation (ER)	
24	Evasion of regulation: ability, profitability	Clear evidence of cross subsidy
25	Ability of regulators to detect and deter evasion	Nil

Steven C. Salop and Daniel P. Culley, 2015, “Revising the U.S. Vertical Merger Guidelines: Policy Issues and an Interim Guide for Practitioners,” *Journal of Antitrust Enforcement* (forthcoming)

APPENDIX: DEFINITIONS AND CONSOLIDATION OF POTENTIAL IMPACTS OF VERTICAL MERGERS VIEWED AS CONCERNS ABOUT VERTICAL LEVERAGE IN HIGHLY CONCENTRATED MARKETS

Overall	Impact										
	IF	CF	UI	CE	MD	\$	ER				
										Impact definitions	Short Description
										<u>Input Foreclosure (IF)</u>	
1	1	1								Pre-merger market structure and competition in input and output markets and the Impact of the merger on market structure and incentives in the input and output markets.	Market Structure
2	2	2								Ability and incentive of non-merging input suppliers and downstream competitors to continue to compete, if foreclosed by merging firm.	Ability of fringe to compete
3	3 (13)	7	6	5						Behavior and market impact of other integrated firms.	Behavior of integrated firms
4	4	8								Existence, structure (including any exclusionary provisions), and competitive effects of other vertical contracts by the parties or other firms in the markets.	Impact of contractual terms
5	5, 8	4	4							Identification of downstream rivals likely targeted for a foreclosure strategy of either raising price, restricting supply, or degrading quality and ability of the targeted downstream rivals to substitute to other equally cost-effective input suppliers and the capacity and incentives of those input suppliers, including any impact of any reduced input purchases by the downstream division of the merged firm.	Availability of substitute inputs
6	6									Determination of whether the other input suppliers would have the unilateral incentives to raise their prices, or the incentive and ability to raise prices in coordination with one another, if the upstream division of the merged firm were to engage in an input foreclosure strategy.	Incentives of other firms to parallel
7	7	3, 6								The resulting extent to which downstream rivals' costs would be raised (or quality decreased) if the upstream division of the merged firm refuses to sell or degrades the quality of its input or raises its input price to the targeted downstream rivals, or restricts their cost-effective ability to expand.	Ability to undermine competition through, withholding, quality degradation, or price increase
	8									Evaluation of whether there are downstream firms (including vertically integrated competitors) that have alternative access to inputs from other upstream firms or upstream entry so that they will not be disadvantaged by (or targeted for) any foreclosure that occurs.	
8	9 (10)									Evaluation of the residual competitive constraints provided by these non-targeted downstream competitors and other products that do not use the inputs supplied by the upstream division of the merged firm and its competitors.	Competitive fringe ability to constrain
	10									Evaluation of competitive constraints provided by other products that do not use the inputs supplied by the upstream division of the merged firm and its competitors.	
9	11									Information relevant to estimating the rate at which variable cost increases of the upstream and downstream are passed through as higher prices.	Pass through of variable cost
10	12									Information from natural experiments relevant to estimating diversion ratios resulting from foreclosure.	Ability to capture customers

	13		6	5				Input pricing and sales conduct of other integrated firms in the market and evaluation of any impact on downstream prices.	
11	14	8						Evaluation of the market impacts, if any, of other vertical contracts that involve exclusivity or favoritism.	Impact of reciprocity
								<u>Customer Foreclosure (CF)</u>	
		1						Evaluation of whether the downstream division of the merged firm would have the ability to shift significant input purchases to the upstream division of the merged firm, and if so, determination of the resulting loss of sales to other upstream firms.	
		2						Evaluation of the impact of those lost sales on the ability of one or more upstream firms to compete, and whether it might lead to the exit of any upstream firms, or higher costs, or reduction in investment incentives.	
		3						Evaluation of whether the downstream division of the merged firm would have the power as a buyer to induce upstream firms to raise the input prices they charge to its downstream rivals (e.g., by threatening not to purchase).	
		4						Whether non-merging upstream firms would have increased opportunities to sell additional inputs to non-merging downstream firms that might no longer wish to deal with the upstream division of the merged firm or would have very elastic demand for their inputs.	
12		5						Whether the upstream division of the merging firm or other upstream firms would gain the power to bargain for higher prices with the non-merging downstream firms.	Bargaining leverage
		6						The resulting impact, if any, on the costs of non-merging downstream firms and downstream competition, as analyzed for input foreclosure.	
		7						Purchase behavior of other integrated firms in the market and evaluation of any market impact.	
		8						Evaluation of the market impacts, if any, of other vertical contracts that involve exclusivity or favoritism.	
13		9						Whether the upstream division of the merging firm could fulfill all of the input needs of its downstream division and, if not, the incremental profit margin on sales the downstream division would lose from contracting its output.	Ability to self-supply
								<u>Unilateral Incentives (UI)</u>	
14			1					If the downstream firm raised price and lost a certain percentage of its sales, the fraction of those sales that would be diverted to other downstream firms which would purchase inputs from the upstream division of the merged firm in order to satisfy their incremental demand.	Earning on input, compared to retail product
15			2					The incremental profit margin of the upstream division of the merged firm, the downstream division of the merged firm and the resulting incremental profits earned by the upstream division of the merged firm on those increased input purchases from the resulting diverted sales.	Relative margins
16			5					The potential for rapid entry and longer term entry into the downstream market.	Barriers to entry
								Coordination Effects (CE)	

17				1	1	1	The vulnerability of each market to coordination. ⁹⁴	Vulnerability to coordination
18				2			Whether the downstream division's post-merger incentives will be to continue dealing with upstream firms other than its own upstream division.	Incentive to deal
19				3 (4)			The pre-merger access by the downstream firms to sensitive competitive information about upstream and downstream firms, such as price information and an examination of how the merged firm would or would not be able to use this information to facilitate coordination after the merger.	Access to and use of competitively sensitive information
				4			An examination of how the merged firm would or would not be able to use this information to facilitate coordination after the merger.	
				5			The potential for repositioning by other downstream firms.	
				6			The potential for rapid entry and longer term entry into the downstream market.	
							Impact on Maverick or Disruptive MD)	
					1		The vulnerability of each market to coordination.	
20					2, (3, 4, 5)		Information regarding whether the downstream division of the merged firm is acting like a disruptive buyer regarding input purchases in the pre-merger market.	Who are the mavericks and how do firms behave toward them
					3		Information regarding whether the downstream division of the merged firm is the unique disruptive buyer or whether other buyers also act in this way.	
					4		Information regarding whether one of the non-merging firms has been a maverick in the output market.	
					5		Information regarding whether the merger would permit the upstream division of the merged firm to orchestrate higher input prices or other threats to deter this none merging firm's maverick behavior.	
							Price increases (\$)	
						1	Evidence regarding whether the downstream market is vulnerable to coordination.	
21						2	Determining whether the merger increases cost symmetry by reducing costs.	Cost symmetry
22						3	Determining if lower costs would significantly increase the ability and incentive to punish defectors from a coordinated agreement or informal understanding.	Cost and ability to punish market participants
23						4	Evaluating whether the downward pricing pressure from unilateral effects is more or less significant than the potential upward pricing from any increased likelihood of coordination.	Balance of upward and downward pressure on prices
							Evasion of regulation (ER)	
24						1 (2)	Identification of any regulation of the prices or other competitive instruments of either of the merging firms and determination of whether or not the merger could be used to evade that regulation, for example, price charged by the upstream division of the merged firm, or whether the regulations could be evaded by selling the products of the merging firms on a bundled basis.	Evasion of regulation: ability, profitability
						2	Evaluation of whether the evasion would be so costly to the merged firm that it would be unprofitable.	

25							3 (4)	Evaluation of whether the regulatory agency has the ability to review the merger and assess the merger's potential impact on regulatory evasion itself.	Ability of regulators to detect and deter evasion
							4	Evaluation of whether rapid detection and penalties levied by the regulatory agency would deter attempted regulatory evasion.	