



May 31, 2019

Office of the Secretary  
Federal Trade Commission  
600 Pennsylvania Avenue NW. Suite CC-5610 (Annex C)  
Washington, DC 20580

*Submitted electronically via regulations.gov*

**Re: FTC Hearing #10 – Competition and Consumer Protection Issues in U.S.  
Broadband Market**

Dear Commissioners:

INCOMPAS, the Internet and competitive networks association, appreciates the opportunity to comment on the tenth hearing in the Federal Trade Commission’s (“FTC” or “Commission”) examination of “Competition and Consumer Protection Issues in the 21st Century.” In this look at “Competition and Consumer Protection Issues in U.S. Broadband Markets,” INCOMPAS offers its attached comments, and we would be happy to meet with the Commission concerning our views.

Respectfully submitted,

*/s/ Angie Kronenberg*

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## I. INTRODUCTION

INCOMPAS, the Internet and competitive networks association, is the preeminent national industry association for providers of Internet and competitive communications networks. We represent companies that provide competitive residential broadband Internet access service (“BIAS”), as well as other mass-market services, such as video programming distribution and voice services in urban, suburban, and rural areas. Our members include small fiber providers that are building more fiber than and are offering services that are competitive to large incumbents such as AT&T and Comcast. We also represent companies that are providing business broadband services to schools, libraries, hospitals and clinics, and businesses of all sizes. We have wireless and satellite members that are offering services to residential and business customers. Finally, we represent transit and backbone providers that carry broadband and Internet traffic, and online content and video distributors (“OVDs”) that offer various content and communications services and video programming over BIAS to consumers.

INCOMPAS is active in promoting the growth of next generation networks through pro-competition policies that have unleashed network investment, and will pave the way for the critical deployment of wired and wireless networks, including 5G service. INCOMPAS seeks to lower the barriers to broadband deployment by advancing policies that permit competitive access to poles, ducts, and conduits. We support dig-once and touch-once policies, accelerating wireline and wireless broadband deployment, and we support ending monopoly agreements and practices for multi-tenant environments (“MTEs”). INCOMPAS members are advocates for maintaining critical competitive statutory policies that promote the widespread deployment of

broadband and the potential of next-generation networks to bridge the digital divide and bring faster speeds and more opportunities to consumers. A list of our members is provided in Attachment A.

**II. DESPITE EXTRAORDINARY TECHNOLOGICAL PROGRESS SINCE THE COMMISSION'S 2007 REPORT, BROADBAND COMPETITION IS STILL LIMITED.**

There has been significant technological progress made in the 12 years since the FTC's *Broadband Connectivity Competition Policy Report* was published in 2007.<sup>1</sup> Consumers, where available, are using higher-speeds at home, and they now have BIAS on the go through their mobile wireless devices. Despite that progress, residential BIAS competition and other broadband competition is still quite limited and mobile broadband competition is under threat with the pending proposed T-Mobile/Sprint merger. As we discuss further below, INCOMPAS believes that policymakers need to consider and implement policy changes to promote more competition.

**a. While Broadband Capabilities Have Improved, We Are Still Not Where We Need To Be.**

In 2008, the Federal Communications Commission ("FCC") defined "advanced telecommunications capability" (also known as broadband) in its *Fifth Broadband Progress Report* as "services and facilities with an upstream and downstream transmission speed of more than 200 kilobits per second (kbps)."<sup>2</sup> At that time, fiber technologies could deliver 30 Mbps for

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<sup>1</sup> FED. TRADE COMM., BROADBAND CONNECTIVITY COMPETITION POLICY STAFF REPORT (2007).

<sup>2</sup> See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, GN Docket No. 07-45, Fifth Report, FCC 08-88 (rel. June 12, 2008) at 2 ¶ 2, available at <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/fifth-broadband-progress-report> ("Fifth Broadband Progress Report").

uploads and 5 Mbps for downloads, and in some locations 50/10 Mbps.<sup>3</sup> The FCC has since modified the definition twice—to 4/1 Mbps in 2010<sup>4</sup> and again to 25/3 Mbps in 2015.<sup>5</sup>

According to the FCC in the *2019 Broadband Deployment Report*:

[A]pproximately 304 million Americans, or 93.4% of the population, are covered by both 25 Mbps/3 Mbps fixed terrestrial service and mobile LTE with a minimum advertised speed of 5 Mbps/1 Mbps, an increase from 91.7% in 2016. In rural areas, 73.2% of Americans are covered by both services, as opposed to 98.3% of Americans in urban areas, up from 67.1% and 97.7%, respectively, in 2016. On Tribal lands, 67.6% of Americans have coverage for both services up from 62.4% in 2016.<sup>6</sup>

However, as discussed further below, INCOMPAS has cautioned the FCC that the Form 477 data that the agency uses to compile these statistics overstates broadband availability and should not be relied upon for measuring competition.<sup>7</sup> Moreover, third-party reports indicate that far

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<sup>3</sup> *Id.* at 7 ¶ 14.

<sup>4</sup> See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future*, GN Docket No. 09-137, 09-51, Sixth Broadband Progress Report, FCC 10-129 (rel. July 20, 2010), at ¶ 11.

<sup>5</sup> See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, FCC 15-10 (rel. Feb. 4, 2015), at 3 ¶ 3.

<sup>6</sup> *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, 2019 Broadband Deployment Report, FCC 19-44 (rel. May 29, 2019), at 19 ¶ 36, available at <https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf> (“2019 Broadband Deployment Report”).

<sup>7</sup> We are not alone in our caution. Members of Congress, on both sides of the aisle, have criticized the FCC’s inaccurate assessment of broadband availability, and there have been a number of legislative proposals that have been introduced to address this issue. See, e.g., H.R.

fewer Americans have access to broadband than the FCC claims. Microsoft, a member of INCOMPAS, indicates that according to its broadband usage data, over 162 million Americans are not using broadband at 25/3 Mbps.<sup>8</sup> Thus, we would similarly caution the FTC about relying upon the FCC's broadband information for assessing the state of the marketplace, including broadband availability and competition, until the FCC has corrected its collection and reporting of broadband data.

With respect to appropriate benchmarking, INCOMPAS is a proponent of using 1 Gigabit as the metric for broadband. Where our members have deployed competitive fiber, they are able to offer 1 Gig symmetrical at reasonable prices.<sup>9</sup> In response to fiber competition, incumbent telcos and cable operators are investing more in their networks, including deploying their own fiber and/or upgrading DOCSIS.<sup>10</sup> Moreover, subscriptions indicate that the FCC's definition is

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2643 Broadband Mapping After Scrutiny (MAPS) Act, 116th Cong. (2019). The FCC has an open proceeding wherein it is considering making changes to its Form 477 to gather more granular data from broadband providers. *See Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Further Notice of Proposed Rulemaking, FCC 17-103 (rel. Aug. 4, 2017).

<sup>8</sup> John Kahan, *It's time for a new approach for mapping broadband data to better serve Americans*, MICROSOFT ON THE ISSUES (Apr. 8, 2019), <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>.

<sup>9</sup> Comments of INCOMPAS, GN Docket No. 17-199 (filed Sept. 21, 2017) ("INCOMPAS' 2017 Section 706 Comments") at 16-20.

<sup>10</sup> INCOMPAS Reply Comments, WC Docket No. 17-108 (Aug. 30, 2017), Exhibit B, David S. Evans, *Economic Findings Concerning the State of Competition for Wired Broadband Provision to U.S. Households and Edge Providers*, at 35-37, available at <https://www.incompas.org/files/INCOMPAS%20RIF%20Reply%20Comments-30Aug%20FINAL.pdf> ("Evans Report").

out of date. Entry-level service options by large BIAS providers (especially cable)<sup>11</sup> are at least 50 Mbps up to 1 Gig.<sup>12</sup> Indeed, Ookla finds that with gigabit expanding across the nation, fixed broadband speeds in the United States are rapidly increasing. Speedtest® data reveals a 35.8% increase in mean download speed during the last year and a 22.0% increase in upload speed.<sup>13</sup> The average U.S. Internet download speed is 96.25 Mbps, and upload speed is 32.88 as of mid-year 2018.<sup>14</sup> While availability is lacking for many Americans, broadband demand is growing across the economy. Consumers are using broadband to work, do their homework, entertain themselves, shop, and stay connected to friends and family, among many other uses. Multiple family members are using broadband simultaneously at homes across America through laptops, tablets, gaming devices, and smartphones, and the number of connected devices is growing. It is not surprising that broadband download speeds are increasing.

Higher broadband speeds, where available, have allowed residential consumers to adopt new applications that compete with legacy services. For example, consumers can now stream video content online and can do so rather than subscribing to a traditional cable or MVPD service. In fact, consumers are “cutting the cord” in record numbers. Analyst firm MoffettNathanson estimated the traditional video subscriber losses totaled 1.4 million in the first

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<sup>11</sup> In those geographic areas where incumbent telcos have not upgraded their copper to fiber or added new electronics, these higher speeds may not be offered.

<sup>12</sup> *Id.* at 18.

<sup>13</sup> *2018 Speedtest U.S. Fixed Broadband Performance Report by Ookla*, OOKLA (Dec. 12, 2018), available at <https://www.speedtest.net/reports/united-states/2018/fixed/> (presenting results based on data taken in the second and third quarters of 2018).

<sup>14</sup> *Id.* According to Ookla, the U.S. ranks 7th in the world for download speed, between Hungary and Switzerland. The U.S. ranks 27th for upload, between Bulgaria and Canada, during Q2-Q3 2018.

quarter of 2019 alone—the worst quarter ever for the service and 75% worse than just one year ago.<sup>15</sup> For 2018, the Leichtman Research Group found “nearly 2.9 million net losses for the top pay-TV providers in 2018 were about double the net losses in 2017, and more than in any previous year.”<sup>16</sup> Services like Netflix and Amazon Prime Video have led a revolution in the way that consumers experience and access content and are part of the reason why traditional linear services have experienced declining subscribership over the last few years. Streaming services are now as much a part of the entertainment landscape as broadcast networks and cable channels, with more companies like Disney and Apple poised to enter the streaming market in the coming months.<sup>17</sup> Additionally, there are numerous online video options for consumers—whether they want a la carte, a skinny bundle, or a traditional MVPD option online—higher speed broadband at home now allows for numerous choices.

We have also seen increasing competition in other sectors amongst online (edge) services that generally experience low barriers to entry. Higher broadband speeds, where available, have brought digital competition to the media marketplace as new companies have entered the landscape and traditional institutions like newspapers and broadcast stations have moved an

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<sup>15</sup> Ben Munson, *The top 6 cable, satellite and telco pay TV operators in the first quarter of 2019: Ranking Comcast, DirecTV, Charter and more*, FIERCEVIDEO (May 7, 2019, 10:02 AM), <https://www.fiercevideo.com/cable/top-6-cable-satellite-and-telco-pay-tv-operators-q1-2019-ranking-comcast-directv-charter-and>.

<sup>16</sup> *Leichtman Research Group Research Notes: Actionable Research on the Broadband, Media & Entertainment Industries, 1Q 2019*, LEICHTMAN RESEARCH GROUP (2019), at 8, <https://www.leichtmanresearch.com/wp-content/uploads/2019/04/LRG-Research-Notes-1Q-2019.pdf> (“Leichtman Group Research Notes”).

<sup>17</sup> See Brooks Barnes and John Koblin, *Disney Plus Streaming Service Is Unveiled to Hollywood Fanfare*, N.Y. Times (Apr. 11, 2019), <https://www.nytimes.com/2019/04/11/business/media/disney-plus-streaming.html>; see also *TV – Apple*, APPLE, <https://www.apple.com/tv/>.

increasing amount of content online. E-commerce is robust as consumers purchase more of the goods they value from digital marketplaces. Edge providers have also made it easy to find information from a plethora of digital sources, including search engines, applications, websites, and smart devices. Consumers also feel greater ease with switching providers of edge services and using the capabilities provided by high speed broadband to engage in practices like multihoming, in which they connect their home networks to multiple available networks for the purpose of improving reliability and performance (where multiple options are available).

Businesses also are using broadband connections, where available, more than ever before. Cloud services are growing and entire industries are changing as they too are relying more on broadband connectivity. The healthcare industry, manufacturing, agriculture, and retail, among many others, are experiencing the impact of broadband. Businesses large and small must be connected to compete. As consumer and business begin to contemplate how the next generation of networks could affect them, broadband demand is expected to continue to grow.

In 2017, NCTA—The Internet and Television Association explained that “ensuring that the U.S. remains a global Internet leader means that our networks have to stay ahead of demand. We must transition from an era defined by megabits to one which gigabit connectivity is unleashed.”<sup>18</sup> INCOMPAS could not agree more. The U.S. should be the global leader in fixed broadband and deployment of fiber—which is the backbone for tomorrow’s 5G networks—and winning the global race to the future. A definition of broadband that is only 25/3 Mbps is out of date and should be modernized to 1 gigabit. Broadband speed of 1 Gig is already here, and connecting American consumers at that speed must be the communications sectors’ highest

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<sup>18</sup> *The Future of Super-Fast Internet*, NCTA (Apr. 5, 2017), available at <https://www.ncta.com/positions/the-future-of-super-fast-Internet>.

priority. America needs to do so to win the global broadband race. In contrast, as of 2018 China has 368 million households connected to fiber, with a goal of every household connected.<sup>19</sup>

Once households are connected to fiber, the incremental cost to upgrade to 5G is small. With an estimated 11 million households connected to last-mile fiber,<sup>20</sup> the U.S. must do more to enable fiber builds, and we focus on policy measures the U.S. should take to promote last-mile fiber in the last section of the comments.

**b. There Is Not Sufficient Broadband Competition in the U.S.**

INCOMPAS' competitive fiber providers and wireless members continue to deploy broadband throughout the nation.<sup>21</sup> Broadband competition ensures innovation, investment, and progress, and it is evident that when a competitive fiber provider enters a local market, consumers reap significant benefits. A broad range of economic reports show that broadband speeds increase and customers receive better service at lower prices when our members are

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<sup>19</sup> Susan Crawford, *China Will Likely Corner The 5G Market – And The US Has No Plan*, WIRED (Feb. 20, 2019, 7:00 AM), <https://www.wired.com/story/china-will-likely-corner-5g-market-us-no-plan/>.

<sup>20</sup> See Cory Doctorow, *America's Fiber Future: Susan Crawford on how America's wired future is slipping away*, BOINGBOING (Jan. 8, 2019, 4:15 AM), <https://boingboing.net/2019/01/08/fiber-vs-america.html>; but see 2019 Broadband Deployment Report at 40 ¶ 76 (indicating that broadband providers had deployed fiber to 5.9 million households in 2018).

<sup>21</sup> INCOMPAS supports wholesale access policies for incumbent networks that can be upgraded via electronics (software) to offer broadband services. These policies are under threat from a USTelecom petition for forbearance filed at the FCC last year, which is discussed further below. INCOMPAS has urged the FCC to deny the petition and maintain the reasonable wholesale access policies from the bipartisan 1996 Telecom Act that are delivering competitive broadband to areas that otherwise have no broadband access or face a monopoly (or, at best, duopoly) broadband market. See, e.g. Opposition of INCOMPAS et al., WC Docket No. 18-141 (filed Aug. 6, 2018), available at <https://www.incompas.org/Files/filings/2018/08-06-18%20USTelecom%20Petition%20Opposition.pdf>.

providing an alternative broadband product.<sup>22</sup> For example, the economist William P. Zarakas shows that our competitive members via statutory unbundling provisions are building more fiber in the areas they operate than incumbents, offering faster speeds and lower pricing.<sup>23</sup> David Sappington, the former Chief Economist for the FCC, demonstrates how the current statutory network unbundling policies in the Communications Act incentivize competitors to build and, in turn, incumbents to respond with their own deployment and better offerings and pricing.<sup>24</sup> David Evans, the Chairman of the Global Economics Group, also confirms that incumbents respond when competitive high-speed wired broadband is deployed.<sup>25</sup>

Unfortunately, competition in the residential fixed BIAS marketplace and business marketplace is very limited at this time. Most Americans only have one high-speed provider at home and one BDS provider to their business location(s). They may have a second choice; however, very few Americans actually have a third, competitive fiber option. Of course, there are still too many areas that consumers and businesses have no high-speed fixed broadband

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<sup>22</sup> See Declaration of William P. Zarakas Before the Federal Communications Commission, *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141, (Aug. 6, 2018, Attachment 2 to Opposition of INCOMPAS, et al.) (“Zarakas Declaration”); see also David E.M. Sappington, *Premature, Ubiquitous Forbearance Will Harm Consumers* (Aug. 6, 2018), available at <https://www.incompas.org/Files/filings/2018/08-06-18%20USTelecom%20Petition%20Opposition.pdf> (“Sappington Report”); see also INCOMPAS Reply Comments, WC Docket No. 17-108 (Aug. 30, 2017), Exhibit B, David S. Evans, *Economic Findings Concerning the State of Competition for Wired Broadband Provision to U.S. Households and Edge Providers*, GLOBAL ECONOMICS GROUP (Aug. 29, 2017), available at <https://www.incompas.org/files/INCOMPAS%20RIF%20Reply%20Comments-30Aug%20FINAL.pdf> (“Evans Report”).

<sup>23</sup> See Zarakas Declaration at 3-4.

<sup>24</sup> See Sappington Report at 10-13.

<sup>25</sup> See Evans Report at 33.

choice because cable does not serve there, and incumbent telcos have not upgraded their copper.<sup>26</sup> As discussed below, it is expensive and time-consuming for competitive fiber providers to build, and there are significant barriers that they face when they want to do so.<sup>27</sup> The FCC has taken a number of steps in recent years to address these issues. For instance, it has adopted policies that encourage more predictable and more reasonable costs to build, including promulgating a one-touch make-ready (“OTMR”) policy for pole attachments that INCOMPAS and its members endorsed.<sup>28</sup> For wireless deployment, which always is reliant on wireline networks, the FCC also has streamlined processes to encourage builds, including 5G network rollout—which is the next generation of wireless networks that companies have begun to deploy.<sup>29</sup> The need for dense fiber deployment across the country is more critical for the roll-out of 5G technology. With the introduction of 5G, the expectation is that more devices will be connected online. For example, the number of IoT devices is expected to grow worldwide to 10 billion by 2020 and 22 billion by 2025.<sup>30</sup> Given the data demands, there will be a significant

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<sup>26</sup> Because broadband satellite options are limited in terms of the number of subscribers they can serve, the speed/latency offered, as well as priced higher than fixed wireline or fixed wireless services, the FTC should not include them in a competition analysis.

<sup>27</sup> See Evans Report at 28-37.

<sup>28</sup> See *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Development*, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705 (rel. Aug. 3, 2018) (“Wireline Deployment Third Report and Order”).

<sup>29</sup> See *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Second Report and Order, WT Docket No. 17-79 (rel. March 30, 2018) (“Wireless Deployment Second Report and Order”).

<sup>30</sup> *State of the IoT 2018: Number of IoT devices now at 7B – Market accelerating*, IOT ANALYTICS (Aug. 8, 2018), <https://iot-analytics.com/state-of-the-iot-update-q1-q2-2018-number-of-iot-devices-now-7b/>.

need for more wired backhaul—i.e., fiber, to carry wireless traffic. As such, continued efforts to streamline both wired and wireless deployments, and maintaining network unbundling policies is important to enable faster and more cost-effective broadband networks to be built. We discuss below additional policy changes that are needed to promote fiber deployment. The FTC should advocate for these policies so that broadband competition is enabled in more geographic areas throughout the nation.

**III. ANY CONCLUSIONS DRAWN ABOUT THE BROADBAND MARKETPLACE MUST BE BASED ON ACCURATE AND VERIFIABLE DATA AND INCLUDE A STUDY OF THE COMPETITIVE IMPACT ON PRICING AND SERVICE QUALITY.**

When evaluating the markets for this report, the FTC should be very mindful of how broadband is being used by consumers and businesses. INCOMPAS urges the FTC to define the product markets and geographic markets by using what is made available today and how consumers and businesses are purchasing and using the service.

For residential or mass market service—consumers are using (1) fixed BIAS at home and (2) mobile BIAS on the go. Consumers prefer access to both fixed and mobile broadband service, and the FCC has agreed that the availability of both types of service are necessary for finding that broadband service is available under Section 706 of the Communications Act.<sup>31</sup> INCOMPAS has urged the FCC to collect accurate and verifiable data, and measure the availability of both fixed and mobile broadband networks.<sup>32</sup>

Of course, the experience of using these services are distinctly different. Fixed wireline typically delivers faster, more robust BIAS connections. Consumers expect a high-speed fixed

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<sup>31</sup> 2019 Broadband Deployment Report at 4-5 ¶ 10.

<sup>32</sup> INCOMPAS' 2017 Section 706 Comments at 7-11.

broadband service when they move to a new home. Indeed, where it is not available, it is more difficult to sell a house.<sup>33</sup> When we are at our office or in our homes, our connections are faster, we can stream and consume long-form video much more easily, and most of us do not have to worry about hitting a data cap. On the other hand, mobile provides the convenience of access, but typically at slower speeds and higher prices. When we are on the go, we use our mobile device to stay connected. We expect our mobile devices to work—waiting for a signal to download an email or use a work app to reach a customer is frustrating and slows us down. We check email for work, talk on the phone, and use apps to manage our business and social life. Sometimes our mobile connection is strong, and sometimes it is not. Americans typically are paying more for their mobile broadband connection, so many users limit how much they use to avoid going over their data caps and paying more.

Most Americans and businesses continue to use a fixed broadband service because mobile is not a sufficient substitute. Accordingly, access to both fixed and mobile broadband is necessary to meet the needs of consumers.<sup>34</sup> Unfortunately, in the current environment, consumers and businesses have limited choice for fixed broadband services, and for particular types of broadband services—such as business data services (“BDS”)—choices are even more limited.

**i. Measuring competition for broadband must be carefully evaluated and be based on accurate and verifiable data.**

It is important for the FTC to base its conclusions about the state of fixed broadband competition on accurate and verifiable data at the local market level; and that it do so for

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<sup>33</sup> See Ryan Knutson, *How Fast Internet Affects Home Prices*, WALL ST. J. (June 30, 2015, 6:35 PM), <https://www.wsj.com/articles/SB11064341213388534269604581077972897822358>.

<sup>34</sup> While 5G may have the promise of competing directly against fixed wireline, that has not been proven, and the FTC should not include 5G in its fixed broadband analysis.

residential (mass market) BIAS and BDS service, which businesses of all sizes use, including schools, libraries, hospitals, public safety and local, state and federal government agencies, and mobile wireless companies for backhaul to towers.

**a. Residential Fixed BIAS**

Broadband connections and services must be currently physically available to consumers in order for the FTC to count them in its competition analysis. Because both residential and business users purchase their broadband services locally, geographic markets for fixed broadband, including BIAS and BDS are based on where a person lives or where a business is located.

Unfortunately, the FCC's current Form 477 data is insufficient for purposes of evaluating competition for fixed BIAS. There have been a number of concerns raised about the sufficiency of the information and assessments from the FCC's current Form 477 data collections. Indeed, even the FCC states:

A provider that reports deployment of a particular technology and bandwidth in a particular census block may not necessarily offer that particular service everywhere in the census block. Accordingly, a list of providers deployed in a census block does not necessarily reflect the number of choices available to any particular household or business location in that block, and the number of such providers in the census block does not purport to measure competition.<sup>35</sup>

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<sup>35</sup> See *Explanation of Broadband Deployment Data, Block-Level Deployment and Competition*, FED. COMM'N COMM., available at <https://www.fcc.gov/general/explanation-broadband-deployment-data> (last visited May 28, 2019). See also INDUSTRY ANALYSIS AND TECHNOLOGY DIVISION, WIRELINE COMPETITION BUREAU, FED. COMM'N COMM., INTERNET ACCESS SERVICES: STATUS AS OF JUNE 30, 2017, (Nov. 2018), at 6, available at <https://docs.fcc.gov/public/attachments/DOC-355166A1.pdf> ("2018 Internet Access Services Report") ("A provider that reports offering service in a particular census block may not offer service, or service at that speed, to all locations in the census block. Accordingly, the number of providers shown in Figure 4 does not necessarily reflect the number of choices available to a particular household and does not purport to measure competition.")

This caveat is necessary because the Form 477 information indicates a census block is served even where a broadband provider does not actually provide service, but could do so. Moreover, the FCC treats the entire population of a census block as served even where the broadband provider could offer service to one location in a census block. This potentially exaggerates the amount of *any* competitive overlap. Accordingly, an overstatement of competitive choice of broadband providers is very likely should the FTC rely upon the current Form 477 information.<sup>36</sup> Unfortunately, the FCC failed to heed this warning and abandoned its previous practice of not using the Form 477 data in its Communications Marketplace Report released last December.<sup>37</sup> The FTC should not make the same mistake.

INCOMPAS is not aware of any sufficient information that is accurate and verifiable for the FTC to conduct a thorough competition analysis for fixed BIAS. However, should it proceed to do so, it is important that the FTC's analysis must take into account whether customers switch providers when offered better pricing or terms of service. The FCC has never taken into consideration the impact that competition has on pricing and service quality, leaving the

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<sup>36</sup> The FCC has a Further Notice of Proposed Rulemaking pending to modify its collection of Form 477 data to improve its collection and analysis. *See supra* n. 7. INCOMPAS participated in that proceeding and incorporates by reference the comments it submitted. Comments of INCOMPAS, WC Docket No. 11-10 (filed Oct. 10, 2017).

<sup>37</sup> *See Communications Marketplace Report, et al.*, GN Docket No. 18-231, et al., Report, FCC 18-181 (rel. Dec. 26, 2018). *Cf.* 2018 Internet Access Services Report at 6 – Number of Providers by Census Block, Fig. 4. (“This information is taken from the block-level Form 477 fixed broadband deployment data that the Commission began collecting in 2014. A provider that reports offering service in a particular census block may not offer service, or service at that speed, to all locations in the census block. **Accordingly, the number of providers shown in Figure 4 does not necessarily reflect the number of choices available to a particular household and does not purport to measure competition.**”) (*emphasis added*).

evaluation of the market incomplete—despite the fact that in September 2017 the Government Accountability Office (“GAO”) criticized the FCC for not doing so.<sup>38</sup>

Finally, for purposes of this report, any finding of effective competition in a local geographic market for residential BIAS should be based on the presence of *at least three* providers serving the local area with high-speed broadband (of at least 25/3 Mbps) and providing such service over their own last mile facilities—neither a monopoly nor a duopoly should be considered sufficient competition.<sup>39</sup> Of course, it is obvious that a monopoly does not best serve consumers—the entire premise of the 1996 Telecom Act was based on this well-founded notion. Moreover, as Sappington discusses, “it is generally inappropriate to rely on duopoly competition to protect consumers.”<sup>40</sup> Additionally, economists have concerns that with few suppliers in a market, tacit collusion may occur, and Sappington provides empirical evidence that prices are higher in concentrated markets. As such, the FTC should not find competition or effective competition unless *at least three* providers serve the local area offering broadband *over their own last mile facilities*.

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<sup>38</sup> See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-17-742, ADDITIONAL STAKEHOLDER INPUT COULD INFORM FCC ACTIONS TO PROMOTE COMPETITION (rel. Sep. 19, 2017), *available at* <https://www.gao.gov/products/GAO-17-742>.

<sup>39</sup> For purposes of fixed competition analysis, it is important that the FTC not include terrestrial options that cannot even meet the current 25/3 Mbps broadband definition as those providers’ networks may not be capable of upgrades to 1 gigabit, and we encourage the FTC to analyze the market based on speed tiers between 25/3 Mbps up to 1 gigabit. Similarly, because broadband satellite options are limited in terms of the number of subscribers they can serve, the speed/latency offered, as well as priced higher than fixed wireline or fixed wireless services, the FTC should not include them in a competition analysis.

<sup>40</sup> See Sappington Report at 9-10.

**b. Business Data Services**

Any assessment of competition must take into account only those services that compete with one another. Where services are not treated as substitutes by purchasers, the FTC should be similarly mindful to treat them separately. For example, many businesses still rely on BDS, including small, mid-sized and large businesses, schools, libraries, health care facilities, government entities, and wireless providers (for backhaul). The FCC defines BDS as “the dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections.”<sup>41</sup> Enterprise customers use BDS “to enable secure and reliable transfer of data” and include services such as DS1 and DS3 interoffice facilities and channel terminations between incumbent local exchange carriers and interexchange carriers.<sup>42</sup> The assessment of competition for BDS should be limited to that product market. BDS is purchased by an enterprise customer at a specific business location. Data collected in the FCC’s most recent assessment of BDS competition demonstrated that 77% of locations with business data services demand had only a *single* full facilities-based provider (i.e. a provider with its own loop facilities to the customer’s premises) available at their location. This figure jumped to 84% for locations with less than 100 Mbps of cumulative demand. In 2017, the FCC prematurely deregulated BDS pricing based on what have been so far unproven predictions of the potential of a single alternative facilities-based provider entering a market.<sup>43</sup> In response, the incumbent

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<sup>41</sup> *Business Data Services in an Internet Protocol Environment, Technology Transitions, 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 No. 16-143, GN Docket No. 13-5, WC Docket No, 05-25, RM-10593, Report and Order, FCC 17-43 (rel. Apr. 28, 2017), at 5 ¶ 6.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 41 ¶ 87.

telcos have raised prices.<sup>44</sup> Now that the consequences of the FCC's deregulatory ruling are clear, the FTC should not find competition or effective competition unless *at least* three providers serve the local area offering BDS *over their own last mile facilities*.

**c. Mobile BIAS Service**

Likewise, mobile services should be assessed separately. As the FCC has asserted and INCOMPAS has agreed,<sup>45</sup> fixed and mobile broadband are distinct offerings, and consumers do not view them as substitutes. Mobile is also purchased locally and based on coverage needs for consumers and businesses. Consumers may have a regional provider, in addition to the four nationwide providers from which to choose. Of course, with the proposed merger between T-Mobile and Sprint, those options may soon change for consumers. The record at the FCC demonstrates that prices are likely to rise as a result of the merger.<sup>46</sup> While INCOMPAS

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<sup>44</sup> Compare CenturyLink Operating Companies Interstate Service Guide No. 11 Release 1, § 7.11.4.C.1.a (May 1, 2018) (Wyoming monthly per mile mileage rate of \$15.60), *available at* [http://www.centurylink.com/tariffs/fcc\\_cloc\\_acc\\_isg\\_no\\_11\\_part1.pdf](http://www.centurylink.com/tariffs/fcc_cloc_acc_isg_no_11_part1.pdf), with CenturyLink Operating Companies Interstate Service Guide No. 11 § Release 2, 7.11.4.C.1.a (May 1, 2019), *available at* [http://www.centurylink.com/tariffs/pending\\_changes.pdf](http://www.centurylink.com/tariffs/pending_changes.pdf) (Wyoming monthly per mile mileage rate of \$29.01 [86% increase]); *See also* Comments of Sprint, WC Docket Nos. 17-144, 16-143, 05-25 (filed Feb. 8, 2019), at 8 (“In 2018, a large price cap ILEC explicitly informed Sprint that it is marking up TDM BDS rates, for channel terminations and transport alike, across portions of its service territory newly deregulated by the 2017 BDS Order.”).

<sup>45</sup> *See Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 17-199, 2018 Broadband Deployment Report, FCC 18-10 (rel. Feb. 2, 2018), at ¶ 18, *available at* <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>.

<sup>46</sup> *See* Letter from 4Competition Coalition to Marlene Dortch, FCC, WT Docket No. 18-197 (May 8, 2019).

opposes the merger, we believe that the agencies could impose wholesale conditions in order to preserve retail competition.<sup>47</sup>

**d. Content Delivery Networks**

There are multiple options for companies of all sizes to utilize local caching services, including the ISPs themselves. Broadband providers typically distribute their own caching networks geographically or utilize caching to provide faster delivery of Internet content as part of what are known as content delivery networks (“CDNs”). Companies offering CDN services include: Akamai, EdgeCast/Verizon Digital Media, AT&T Business, Comcast Technology Solutions, StackPath/Highwinds, Incapsula, Rackspace, Cloudflare, Fastly, Hibernia, Limelight, Level3/CenturyLink, OnApp, aiScaler, Internap, and Ciena. Companies use CDNs to bring their traffic closer to the end user, and end users, BIAS providers, and transit providers benefit as traffic does not need to traverse on long routes. Unless blocked by the BIAS provider, any edge provider can self-provide caches or use a caching providers like Akamai.

**e. Internet Transit Service**

There are a number of competitive options in the marketplace for Internet transit service, including for example, AT&T, Verizon, CenturyLink, Sprint, Cogent, and GTT. While the transit marketplace has generally been viewed as competitive, there may be certain geographic areas (or routes) that may not have the same number of options.

**f. Online Content (Edge) Providers**

Anyone with an online website, application, or service is considered an edge provider. There are millions of digital content (edge) providers, with a relatively low cost to entry that

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<sup>47</sup> Press Release, INCOMPAS Statement of FCC T-Mobile-Sprint Conditions (May 20, 2019), *available at* <https://www.incompas.org/content.asp?admin=Y&contentid=502>.

allow consumers to easily switch or multihome between digital products. Most categories of edge providers are competing vigorously against each other—for example, online video providers (“OVDs”). In many cases, these edge providers are also competing against legacy services both online and offline, for instance, in addition to other streaming companies, OVDs also compete with traditional video service providers or multichannel video programming distributors (“MVPDs”).

There are numerous categories of online businesses, and any assessment of competition by the FTC would need to properly assess the product and geographic markets and consumer behavior in response to competitive offerings, including price and service. For example, the agency should avoid overly constrained market definitions where it places companies in silos—such as “search engines”—that fails to account for the practical ways that consumers substitute products—such as how consumers turn to many different digital services outside of search engines for answers. The FTC should ensure that it accurately captures the extent of cross-platform competition that exists online, as well as the market realities of how consumers use edge providers.

#### **IV. ONLINE CONTENT PROVIDERS MUST ACCESS THEIR CUSTOMERS THROUGH BIAS PROVIDERS, AND LARGE BIAS PROVIDERS HAVE USED THEIR MARKET POWER TO EXTRACT NON-COST BASED ACCESS FEES FROM THEM AND/OR THE ENTITIES THAT DELIVER THEIR CONTENT.**

When BIAS providers offer Internet access service to consumers, they typically promise them the opportunity to reach all the content on the Internet. As such, BIAS providers must interconnect with the other networks, applications, and services that make up the rest of the Internet in order to deliver on that promise of service. Large BIAS providers serving residential customers with wired service today commonly offer Internet access speeds of 50 Mbps or more. As video content has become more widely available online, consumer demand for it has grown,

and BIAS providers have marketed their service as capable of delivering that content to consumers at faster speeds—typically charging consumers higher prices for the higher speeds.

Each BIAS provider has exclusive control over access to its subscribers, often referred to in the industry as a “terminating access monopoly.” Seventy-six percent of the residential last mile BIAS marketplace is only served by four companies: Comcast, AT&T, Charter (Spectrum), and Verizon.<sup>48</sup> Thus, transit providers, CDNs, online content companies, and other edge providers face a highly concentrated marketplace in delivering Internet traffic to last mile BIAS providers. Given that each of the large BIAS providers is also an MVPD, these providers’ video service businesses are threatened by the online video streaming content that consumers are adopting through the OVD of their choice. In fact, these providers are losing MVPD subscribers—almost three million households last year—but gaining BIAS subscribers.<sup>49</sup>

In the very recent past, the FCC, U.S. Department of Justice (“DOJ”) and the U.S. Court of Appeals for the D.C. Circuit agreed that broadband providers have the ability and incentive to harm competition:

- “The Commission has recognized the incentive of Internet access providers such as Charter to discriminate against unaffiliated OVDs.”<sup>50</sup>

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<sup>48</sup> Leichtman Group Research Notes at 8. It should be noted that very little head-to-head competition between these four is occurring in the last mile BIAS marketplace.

<sup>49</sup> *Id.* at 7.

<sup>50</sup> *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 31 FCC Rcd. 6327, 6343 n.103 (“Charter/Time Warner Cable Merger Order”) (citing the Commission’s *Fourteenth Video Competition Report* (2012) and the Report and Order on *Preserving the Open Internet* (2010) as additional sources showing BIAS discrimination against edge providers).

- “[E]dge providers such as OVDs represent a common threat to . . . the entire cable industry.”<sup>51</sup>
- “Some MVPDs have sought to restrain nascent OVD competition directly by exercising their leverage over video programmers to restrict the programmers’ ability to license content to OVDs.”<sup>52</sup>

The record developed in formulating net neutrality protections was consistent with these findings and confirmed twice by the D.C. Circuit, first in *Verizon v. FCC* in 2014<sup>53</sup> and then in *USTA v. FCC* in 2016.<sup>54</sup> In *Verizon*, the court found that the FCC had laid out a substantial and reasoned factual basis for the 2010 Open Internet rules: “[the Commission’s] justification for the specific rules at issue here—that they will preserve and facilitate the ‘virtuous circle’ of innovation that has driven the explosive growth of the Internet—is reasonable and supported by substantial evidence.”<sup>55</sup> In the subsequent *USTA* case, the court incorporated in full its earlier findings: “if there were any lingering uncertainty about the import of our decision in *Verizon*, we fully adopt here our findings and analysis in *Verizon* . . . including our conclusion that the

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<sup>51</sup> *Id.* at 6361 ¶ 71.

<sup>52</sup> Dep’t of Justice Complaint at 3 ¶ 4, *U.S. v. Charter Communications, Inc., et al.* (D.C. Cir. 2016) (noting that some MVPDs have sought clauses in their programming contracts that prohibit programmers from distributing content online, or have placed significant restrictions on online distribution).

<sup>53</sup> *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014) (“*Verizon*”).

<sup>54</sup> *United States Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016) (“*USTA*”).

<sup>55</sup> *Verizon*, 740 F.3d at 628.

Commission's virtuous cycle theory provides reasonable grounds for the exercise of that authority."<sup>56</sup>

As explained below, large BIAS providers possess and have exercised the ability to extract non-cost based fees from transit providers, CDNs, and edge providers. If they do not capitulate and pay these tolls, customers' access to online content will be blocked or throttled, harming consumers' ability to access the online content of their choice and to use the full capacity that the BIAS provider promises to deliver when it sells high-speed BIAS.

- i. Large BIAS providers control access to their last-mile BIAS networks, and they have allowed for congestion into those networks to extract non-cost based tolls.**

Only the largest BIAS providers receive payment for interconnection.<sup>57</sup> These payments resulted from some large BIAS providers refusing to upgrade their interconnection capacity into their last mile BIAS networks as their customers were demanding more online content. Thus, paid interconnection arrangements with large BIAS providers are an exception and not the rule, and these arrangements are not the result of a functioning market. Indeed, the FCC aptly described this ability to control interconnection in the last mile networks in its *Charter/Time Warner Cable Merger Order*. There, the FCC stated:

BIAS providers . . . function as gatekeepers between their subscribers and the rest of the Internet; all traffic going to or from a subscriber must pass through the BIAS provider. Because of this gatekeeping role, BIAS providers with large

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<sup>56</sup> *United States Telecom Ass'n*, 825 F.3d at 734.

<sup>57</sup> In the *Charter/Time Warner Cable Merger Order*, the FCC stated that five BIAS providers were charging for interconnection: Comcast, AT&T, Time Warner Cable, Verizon, and CenturyLink. See *Charter/Time Warner Cable Merger Order* at 6377 ¶ 99. In fact, it is not the norm for transit providers, CDNs and edge providers to pay last-mile BIAS providers for interconnection. The overwhelming majority of BIAS providers either pay for transit service in order to connect with the other networks that make up the Internet, or they exchange traffic without compensation (also known as peering or settlement free interconnection).

numbers of subscribers have greater leverage to negotiate preferential terms and prices with edge providers seeking to reach those subscribers.<sup>58</sup>

Prior to the FCC's *2015 Open Internet Order*, several large BIAS providers, including Comcast, leveraged their control over access to their subscribers to extract terminating access fees or tolls from transit providers, CDNs, and edge providers.<sup>59</sup> They did so by intentionally allowing interconnection points into their networks to congest, preventing their own subscribers from accessing Internet content via the BIAS service for which they had paid. Traditionally, BIAS providers, transit providers, and CDNs would cooperate to upgrade the connections between their networks as the amount of Internet traffic flowing over the connection between their networks increased. Around 2013, some of the largest BIAS providers began to refuse to upgrade the connections between their networks on the one side, and transit providers, CDNs, and edge providers on the other side, unless the transit providers of the CDNs or edge providers they served agreed to pay a recurring toll.

The tolls the large BIAS providers sought to impose were *not* related to costs. Upgrading the connections between the networks includes adding new data ports (the doorways between the networks) and adding wires between those data ports. These kinds of upgrades are not a large cost—they range in the tens of thousands of dollars. Although traditionally both parties interconnecting have shared these upgrade costs, our members offered to pay the entire cost of the upgrades in order to ensure that sufficient capacity was available. But the large BIAS

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<sup>58</sup> *Id.* at 6376 ¶ 95.

<sup>59</sup> See *Protecting and Promoting the Open Internet*, Report and Order On Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5630-5631 n. 128 (rel. Mar. 12, 2015) (“2015 Open Internet Order”) (describing a dispute between Netflix and Comcast over interconnection).

providers refused. As a result, these interconnections remained congested, causing packets to drop and online traffic that the end user customer requested to be disrupted.

The access charges seem to directly reflect each BIAS provider's terminating access monopoly that stems from the number of subscribers that a particular provider controls.<sup>60</sup> Data shows that the per-subscriber access fees charged by the largest BIAS providers increase with the number of subscribers the BIAS provider serves.<sup>61</sup> We understand from our member companies, and from Level 3's comments to the FCC in 2017, that large BIAS providers did not attempt to justify their request for access charges as cost-related. Level 3 explained:

While the tolls demanded varied among these big consumer ISPs, they frequently equaled or exceeded the price that Level 3 charges its customers to provide connectivity to the entire global Internet—notwithstanding that the consumer ISP was charging only for “opening the door” to its network rather than for global connectivity and was already being paid by its own customer to provide that customer with access to the global Internet. These tolls would likely have been just the beginning, because the rational price for an ISP exploiting its gatekeeper power to charge is the profit-maximizing price: a price reflecting the ISP's control over access to its users and the value those users represent to the edge providers that make services available to them. As a consequence of these consumer ISPs' attempts to exploit their control over access to their customers and to extract

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<sup>60</sup> These costs were also unrelated to the actual cost of transporting data from the doorstep of the BIAS provider across the BIAS provider's last mile network to its subscribers that requested the data. The costs of carrying data increase with the distance over which a provider has to carry the data. Our members offered to help reduce these costs by offering to drop off the traffic closer to the relevant subscribers, which would reduce the distance over which the BIAS provider had to carry the data, but the large BIAS providers refused.

<sup>61</sup> *Charter/Time Warner Cable Merger* Order at 6384 ¶ 115 (“[T]he ability of a BIAS provider to charge for access to subscribers increases with the number of subscribers; the greater the number of subscribers, the more the BIAS provider can charge on a per-subscriber basis.”) *See also* Nicholas Hill, Nancy L. Rose, & Tor Winston, *Economics at the Antitrust Division 2014- 2015*, 47 R. Indus. Org. 425, 427-29 (2015) (discussing the DOJ staff's empirical study of interconnection contracts between BIAS providers and online content providers). In regressions to determine the relationship between interconnection fees and size of BIAS providers, the DOJ found that “the relationship between size and fees was found to be positive, statistically significant, and economically meaningful.” *Id.* at 428. In other words, larger BIAS providers obtained higher interconnection fees, a sign of greater bargaining power.

access tolls, interconnection ports between the Level 3 network and these ISP networks became extremely congested, and consumers' experiences were harmed as a result.<sup>62</sup>

Others have observed and confirmed that large BIAS providers have engaged in congestion at interconnection points to extract non-cost based access fees from online video providers. According to the Open Technology Institute, which based its conclusions on data from Measurement Lab, a public, open data resource for Internet measurement:

Customers who had purchased cable modem service that [were] promised 20-50 Mbps were instead experiencing speeds of less than 2 Mbps for weeks and months. The data also reveal that in the days following the resolution of the business dispute, the average throughput spiked back to normal levels. This fluctuation does not appear to be explained through any normal patterns of network traffic flow. The data do not reflect a congestion problem due to insufficient physical capacity in the network, but instead appear to reflect intentionally created artificial congestion designed to significantly degrade the quality of service of a popular application for millions of consumers in order to generate pressure on one company to pay more money. ... The scale of the disruption to consumer services is noteworthy. The data reveal that the four largest ISPs in the United States, representing 68% of all American Internet users, were the principal actors in this episode.<sup>63</sup>

The congestion did not just impact online video traffic. It also affected a broad array of Internet services, including, for example, telework virtual private networks that employees of small and medium-sized enterprises use to connect to their company's internal network.<sup>64</sup> Following a 16-month investigation, the New York Attorney General filed suit against the combined Charter-Time Warner Cable, explaining in one of its findings:

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<sup>62</sup> Comments of Level 3, FCC WC Docket No. 17-108, at 10-11 (July 17, 2017), *available at* <https://ecfsapi.fcc.gov/file/107171850225629/Level%203%20Comments.pdf> ("Level 3 Comments").

<sup>63</sup> Open Technology Institute Comments, FCC GN Docket No. 14-28, at 15-16 (Sept. 15, 2014), *available at* <https://ecfsapi.fcc.gov/file/7522726666.pdf>.

<sup>64</sup> *Id.* at 12.

Spectrum-TWC represented to their subscribers that they would get fast, reliable access to content online .... However, Spectrum-TWC knew that it could not deliver on this promise because of the state of interconnection points in the transmission of online content. Specifically, the company was aware of, and sometimes deliberately created, bottlenecks at interconnection points, which resulted in slowdowns and disruptions to subscribers' service.<sup>65</sup>

While large last-mile BIAS providers claim that they did not allow for congestion at the interconnection points they control, the FCC's records and these other third-party statements demonstrate the truth. Indeed, the FCC itself also found that the four largest BIAS providers in the U.S. and CenturyLink have all been able to impose access charges on transit providers, CDNs, and edge providers.<sup>66</sup> And the Attorney General of New York's investigation uncovered documentary evidence that:

“[F]rom at least 2013 to 2015, major BIAS providers made the deliberate business decision to let their networks' interconnection points become congested with Internet traffic and used that congestion as leverage to extract payments from backbone providers and edge providers, despite knowing that this practice lowered the quality of their customers' Internet service. This practice was not limited to a single instance or locality: NYOAG has found that this practice was used for years by at least two of the country's biggest BIAS providers who operate in New York and in many other states.”<sup>67</sup>

Large BIAS providers have exclusive control over access to their last-mile networks, and they caused congestion deliberately to force transit providers, CDNs, and edge providers to pay access charges in order to avoid that congestion. The problems resulting from that congestion—

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<sup>65</sup> See Press Release, A.G. Schneiderman Announces Lawsuit Against Spectrum-Time Warner Cable And Charter Communications For Allegedly Defrauding New Yorkers Over Internet Speeds And Performance (Feb. 1, 2017), *available at* <https://ag.ny.gov/press-release/ag-schneiderman-announces-lawsuit-against-spectrum-time-warner-cable-and-charter>.

<sup>66</sup> *Charter/Time Warner Cable Merger Order* at 6385-86 ¶ 120.

<sup>67</sup> Comments of The People of the State of New York by Attorney General Eric T. Schneiderman (NY Attorney General), FCC WC Docket No. 17-108, at 2 (July 17, 2017) *available at* <https://ecfsapi.fcc.gov/file/10717583023587/FINAL%20RIF%20Comment%202017-07-17%20%5BREDACTED%5D%5D.pdf>.

slow Internet speeds and dropped data—affected millions of Americans and lasted for years. Prior to the FCC’s *2015 Open Internet Order*, the problems only ended when affected providers chose to pay the fee.

The FCC has found that consumers do not switch BIAS providers when they receive degraded service as a result of congestion.<sup>68</sup> Often consumers do not even know that the interconnection congestion caused by the BIAS provider is the reason for the degraded quality of their BIAS service.<sup>69</sup> And even if a customer determines that the degraded quality of their service is attributable to the BIAS provider, decides to change providers, and is willing and able to pay for the high switching costs and tolerate the inconvenience, they often lack an effective substitute.<sup>70</sup>

**ii. Interconnection improved because of the FCC’s *2015 Open Internet Order*, *AT&T/DirecTV Merger Order* and *Charter/Time Warner Cable Merger Order*.**

For transit providers that refused to pay access charges, including Cogent and Level 3, the problems persisted until the FCC decided to assert oversight over interconnection and traffic exchange in the *2015 Open Internet Order*. When the FCC reclassified BIAS as a

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<sup>68</sup> *Charter/Time Warner Cable Merger Order* at 6382 ¶ 111. When Comcast intentionally allowed congestion to build in order to harm online video consumers and forced an edge provider to pay Comcast a fee for access to Comcast’s subscribers, Comcast faced no serious consequences because its customers lack a competitive alternative and faced high switching costs.

<sup>69</sup> See FTC Commissioner Terrell McSweeney Testimony before the U.S. House of Representatives Judiciary Committee, at 2, *available at* [https://www.ftc.gov/system/files/documents/public\\_statements/1268963/mcsweeney\\_oral\\_testimony\\_to\\_us\\_house\\_of\\_representatives\\_committee\\_on\\_the\\_judiciary\\_11-1-17\\_.pdf](https://www.ftc.gov/system/files/documents/public_statements/1268963/mcsweeney_oral_testimony_to_us_house_of_representatives_committee_on_the_judiciary_11-1-17_.pdf) (noting that consumers may not know why their service is slow).

<sup>70</sup> To switch their broadband provider, a consumer generally must pay equipment rental fees and an early termination fee, which could add up to several hundred dollars. And then there is the inconvenience of returning equipment and waiting for a technician to connect the new service.

telecommunications service under Title II of the Communications Act, BIAS providers became subject to Sections 201 and 202 of the Communications Act, which prohibit providers of telecommunications service from engaging in “unjust and unreasonable practices” and “unjust and unreasonable discrimination.”<sup>71</sup> The FCC explained that these provisions also covered BIAS providers’ interconnection practices and agreements, prohibiting BIAS providers from engaging in “unjust and unreasonable practices” and “unjust and unreasonable discrimination” with respect to interconnection, and that these provisions would allow the FCC to review interconnection practices and agreements case-by-case, including its review of anticompetitive incentives through its merger review process.<sup>72</sup> Finally, the FCC pointed out that it would use these provisions to prevent BIAS providers from evading the FCC’s Open Internet rules.<sup>73</sup>

With the oversight afforded by the *2015 Open Internet Order*, both Cogent and Level 3 were able to negotiate contracts with the large BIAS providers with which they had had disputes, including Comcast and AT&T.<sup>74</sup> As a result of these agreements, interconnection capacity

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<sup>71</sup> 47 U.S.C. § 202(a).

<sup>72</sup> 2015 Open Internet Order at ¶¶ 193, 195 & 203.

<sup>73</sup> *Id.* at ¶ 206: “[T]he *2014 Open Internet NPRM* asked: ‘how can we ensure that a broadband provider would not be able to evade our open Internet rules by engaging in traffic exchange practices that would be outside the scope of the rules as proposed?’<sup>531</sup> [n. 531: *2014 Open Internet NPRM*, 29 FCC Rcd at 5582, para. 59.] [O]ur assertion of authority over Internet traffic exchange practices addresses that question by providing us with the necessary case-by-case enforcement tools [Sections 201 and 202 of the Communications Act] to identify practices that may constitute such evasion and address them.”

<sup>74</sup> Level 3 Comments at 11-12 (“Discussions between Level 3 and these big consumer ISPs remained at an impasse until the *2015 Open Internet Remand Order*. Once the Commission made clear that it had jurisdiction to entertain a complaint filed against a consumer ISP relating to its interconnection practices, the consumer ISPs’ position became untenable for the reasons discussed above: agreeing to augment interconnection on the terms Level 3 had already publicly offered would improve the consumer ISPs’ own service and was virtually cost-free to the ISPs (and in fact would reduce their backhaul costs), and accordingly there was no defensible reason

between Cogent and Level 3 on the one hand, and the large BIAS providers on the other hand, increased significantly, relieving the congestion that resulted from the large BIAS providers refusing to augment their interconnection ports.<sup>75</sup>

Moreover, as it indicated it would do so in its *2015 Open Internet Order*, the FCC specifically reviewed interconnection and traffic exchange in its merger reviews. In the *AT&T/DirectTV Merger Order*, the FCC explained:

As stated in the 2015 Open Internet Order, “consumers bear the harm when they experience degraded access to the applications and services of their choosing due to a dispute between a large broadband provider and an interconnecting party.” Also, because OVD subscribers expect high-quality video, OVDs are vulnerable to degradation at the interconnection point with a broadband Internet access service provider’s last mile network. Thus, as stated in the 2015 Open Internet Order, we find that “broadband Internet access providers have the ability to use terms of interconnection to disadvantage edge providers and that consumers’ ability to respond to unjust or unreasonable broadband provider practices are limited by switching costs.”<sup>76</sup>

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for the consumer ISPs to refuse. Level 3 was then able to negotiate new interconnection agreements with all the US-based ISPs with which it had previously had disputes. While those agreements are not perfect, they are agreements Level 3 was willing to sign under the circumstances. As a result of these new agreements, interconnection capacity between Level 3 and the consumer ISP networks has been increased substantially, benefitting the Internet ecosystem as a whole and end users in particular.”). *See also* Comments of Cogent, FCC WC Docket No. 17-108, at 16-17 (July 17, 2017) (“Soon thereafter [i.e. the adoption of the *2015 Open Internet Order*], BIAS providers that had refused to increase interconnection capacity reversed course and agreed with transit providers to augment capacity. Accordingly, sustained congestion was eliminated at the interconnection points between Cogent and the BIAS providers. It defies logic to believe anything other than that the BIAS providers’ change of course was influenced by the Title II Order.”).

<sup>75</sup> Level 3 Comments, FCC WC Docket No. 17-108, at 12 (“As a result of these new agreements, interconnection capacity between Level 3 and the consumer ISP networks has been increased substantially, benefitting the Internet ecosystem as a whole and end users in particular.”); Cogent Comments, FCC WC Docket No. 17-108, at 18 (“In each case, once an agreement was reached and implemented, congestion and the ensuing consumer harm essentially disappeared.”).

<sup>76</sup> *Applications of AT&T Inc. and DIRECTV For Consent to Assign or Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 30 FCC Rcd 9131, 9215 ¶ 217 (2015) (“AT&T/DirectTV Merger Order”).

The Commission had “heightened concerns” about AT&T’s incentives to discriminate against unaffiliated online content, and its ability to do so at the interconnection points it controls onto its last-mile BIAS network. Accordingly, in addition to conditions related to AT&T’s treatment of unaffiliated online content, the FCC also required that AT&T file its interconnection agreements with the Commission and report on its interconnection performance metrics.<sup>77</sup>

In the *Charter/Time Warner Cable Merger Order*, the FCC described the congestion caused by the large BIAS providers, and specifically stated that its economic analysis has shown that “the ability of a BIAS provider to charge for access to subscribers increases with the number of subscribers; the greater the number of subscribers, the more the BIAS provider can charge on a per-subscriber basis.”<sup>78</sup> It found that the proposed merger would enable the combined company to impose higher costs on edge providers, transit services, and CDNs due to its increased market power, stating:

In the 2015 Open Internet Order, we concluded that ‘broadband Internet access providers have the ability to use terms of interconnection to disadvantage edge providers and that consumers’ ability to respond to unjust or unreasonable BIAS provider practices are limited by switching costs.’ This transaction aggravates those concerns—it creates a large BIAS provider and thereby strengthens its ability to unilaterally impose increased interconnection costs on edge providers, transit providers, and CDNs, ultimately raising costs to consumers for a diverse array of Internet-based services and impeding the virtuous cycle of development. We conclude that increased interconnection costs can disrupt the virtuous cycle of innovation by diverting funds towards interconnection fees that could have otherwise been used for further innovation or price reductions for consumers.

New Charter will be well positioned to leverage its larger BIAS subscriber base and increased control of interconnection traffic to act as a gatekeeper between edge providers and their customers. The combination of Charter and Time Warner Cable will increase the potential damage to their business if they forgo—even

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<sup>77</sup> *Id.* at 9216 ¶ 219.

<sup>78</sup> *Charter/Time Warner Cable Merger Order* at 6384 ¶ 115.

temporarily—interconnection with New Charter compared with either Charter or Time Warner Cable individually. Moreover, because there is limited competition in its BIAS footprint and BIAS subscribers switch providers infrequently, New Charter will be able to pressure edge providers without fear of harming its retail BIAS business.<sup>79</sup>

As such, the FCC imposed conditions that prevent Charter from exercising its market power with respect to interconnection to its last-mile BIAS network, including the requirement that such interconnection be settlement free (*i.e.*, without charging tolls or access fees) for seven years stating:

We determine that a mandatory interconnection condition is necessary to mitigate [the] transaction’s interconnection-related harms. By requiring that large backbone providers, CDNs, and edge providers have reliable, unfettered access to New Charter subscribers for seven years, we believe that New Charter will be constrained from harming the public interest in the interconnection market. For the reasons discussed above, we believe this is an appropriate duration to allow the interconnection market to evolve and for edge providers to mature to a position where they will be more resilient to potentially anticompetitive practices. Such a condition ensures that there will be a competitive market for access to New Charter subscribers, preventing the company from acting as a gatekeeper to its subscribers.<sup>80</sup>

The FCC also required Charter to file its interconnection agreements with the agency for seven years so that it could monitor the merged companies’ practices to ensure that it would not “deny or impede access to its networks in ways that limit competition from rival edge providers.”<sup>81</sup>

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<sup>79</sup> *Id.* at 6381 ¶¶ 108-9.

<sup>80</sup> *Id.* at 6390-91 ¶ 132.

<sup>81</sup> *Id.* at 6392 ¶ 136.

**iii. In the absence of net neutrality and oversight over interconnection, problems are likely to reappear.**

In December 2017, the FCC voted to eliminate all of the substantive net neutrality rules, retaining only a modified transparency rules, and to reclassify BIAS as an information service under Title I of the Communications Act.<sup>82</sup> These changes took effect on June 11, 2018.<sup>83</sup> As a result, several of the largest BIAS providers are now free again to use their leverage over access to their subscribers to force edge providers, CDNs, and transit providers to pay them non-cost based, recurring access fees by refusing to cooperate in upgrading the connections into their network, harming their own subscribers in the process.<sup>84</sup>

The incentives to charge access tolls have not changed, but the federal regulatory regime that curbed them from acting on these incentives is no longer in effect. In fact, many of the largest BIAS providers are now even larger, both because of the mergers discussed above and subscriber growth, which increases their ability to use this “terminating access monopoly” strategy successfully. Comcast and Charter have each added over one million subscribers in 2018, and the largest four wireline BIAS providers together now serve more than 75 million

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<sup>82</sup> See *Restoring Internet Freedom*, Declaratory Ruling, Report and Order, and Order, 33 FCC Rcd 311 (2017).

<sup>83</sup> INCOMPAS is a lead petitioner in the pending appeal of the FCC’s net neutrality repeal which is currently awaiting a decision at the U.S. Court of Appeals for the D.C. Circuit. INCOMPAS supports the H.R. 1644 Save the Internet Act, which was introduced in 2019 as well as the Republican-led legislation proposed last year, the Twenty First Century Internet Act (H.R. 6393, 115th Congress) that would have reinstated net neutrality in the U.S., including the FCC’s rules and provided for interconnection oversight by the FCC.

<sup>84</sup> As stated *supra*, Charter must offer interconnection with no access tolls pursuant to the *Charter/Time Warner Cable Merger Order* for a limited time.

subscribers; that is more than 76% of the total number of subscribers served by the top 14 broadband providers.<sup>85</sup>

The large BIAS providers' assertions that edge providers benefit from paying BIAS providers for direct interconnection, because doing so allows them to save money by cutting out the middlemen—transit providers and CDNs—is incorrect. Edge providers must still bear the costs of delivering their content to the BIAS providers' networks via transit providers and/or CDNs. In addition to those expenses, the edge provider now must also pay a fee to the BIAS provider so that data will be delivered to the subscriber that requested it. For these reasons, switching to a paid, direct interconnection agreement does not save the edge provider money; it actually increases the edge provider's costs by adding an access charge.<sup>86</sup>

An edge provider may have multiple options to transport its data to the BIAS provider's doorstep, but a BIAS provider controls the conditions under which any packet can enter its network through interconnection. Each transit, CDN, and edge provider faces the BIAS provider's terminating access monopoly. In order to deliver traffic to the BIAS provider's subscriber, the only way is through the BIAS provider's network. Thus, an edge provider will always have to pay the BIAS provider's access fee—either directly as part of an agreement for direct interconnection—or indirectly by paying its transit provider or CDN provider, which in turn pays the BIAS provider. That means that an edge provider will not be able to avoid a BIAS provider's access charge by using a transit or CDN provider rather than connecting with the BIAS provider directly.

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<sup>85</sup> Leichtman Group Research Notes at 8.

<sup>86</sup> Large BIAS providers can also now use their last-mile leverage to distort competition for transit and CDNs where they also provide those services.

The FTC Chairman recently indicated his willingness to step in if BIAS behavior is anticompetitive, but he also specifically noted that the FTC’s jurisdiction does not prohibit unjust, discriminatory, or unreasonable behavior.<sup>87</sup> The FCC’s authority should be fully restored in this regard, especially as the federal agency that is responsible for ensuring nationwide availability of communications networks and as the expert agency on interconnection, in particular.

**iv. BIAS providers will be not be harmed if they are prohibited from charging transit providers, CDNs, and edge providers fees for access to their subscribers as part of interconnection agreements.**

INCOMPAS members have consistently offered the same arrangement—handing off traffic to BIAS providers at points of interconnection that are reasonably close to the BIAS subscriber requesting the data—in exchange for settlement-free interconnection. Under this arrangement, the BIAS provider only bears the cost of carrying the data over a small part of its network—from the point where it was handed off by the transit or edge provider to the point where the subscriber is located. That is not a large burden. BIAS providers are already being paid to transmit data over this portion of their network infrastructure by their own subscribers.

Subscription fees are sufficient to cover the cost of transmitting the data over the BIAS provider’s network. Only the largest BIAS providers in the U.S. are being paid by at least some of their interconnection partners for the privilege of being able to deliver the data that the BIAS provider’s subscriber has requested. All other BIAS providers in the U.S.—the vast majority of providers—have been able to function effectively without these fees.

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<sup>87</sup> FTC Chairman Joseph J. Simons, Prepared Remarks at the Free State Foundation’s Eleventh Annual Telecom Policy Conference (Mar. 26, 2019), at 3, *available at* [https://www.ftc.gov/system/files/documents/public\\_statements/1508991/free\\_state\\_foundation\\_s\\_peech\\_march\\_26.pdf](https://www.ftc.gov/system/files/documents/public_statements/1508991/free_state_foundation_s_peech_march_26.pdf).

Globally, the vast majority of interconnection agreements are done without any access tolls. But some large BIAS providers have sought to impose anticompetitive access tolls on edge providers directly or by charging third-party services that smaller online services use to reach consumers. Interconnection oversight and bans on access fees prevent broadband providers from exerting gatekeeper power, but they do not prevent businesses from entering into private agreements to directly interconnect with BIAS providers. They have entered into such direct arrangements prior to and after the FCC's *2015 Open Internet Order*.

**V. LARGE, VERTICALLY INTEGRATED BROADBAND PROVIDERS' CONTROL OVER CONTENT WILL LEAD TO SIGNIFICANT CHALLENGES FOR COMPETITORS AND EDGE PROVIDERS**

Over the last several years, the market has seen several large BIAS providers vertically integrate with video programming providers and other media and content companies. For example, Comcast owns NBC and Universal content. AT&T now owns Time Warner and its subsidiaries, including HBO and CNN. Verizon owns online content, such as Yahoo. With each of these companies having a significant share of BIAS subscribers, and in the case of AT&T and Verizon, a large number of mobile BIAS subscribers, they are in the unique position of being able to favor their own content and discriminate against third-party content over their BIAS networks. Without net neutrality protections and an agency to enforce those protections like the FCC did before 2017, it is especially critical that the FTC review their practices to ensure that they are just and reasonable and not in violation of antitrust law.

INCOMPAS is concerned that there already are a number of practices that BIAS providers are engaged in that favor their own content to the disadvantage of online competitors. For example, AT&T zero-rates its own affiliated programming on its mobile network. With data caps in place, AT&T's zero rating encourages consumption of its own programming, and

discourages adoption of its competitors' programming.<sup>88</sup> AT&T is also withholding content from competitive distributors, such as DISH—its satellite competitor—and from Sling—its online video competitor. This is ironic given that AT&T claimed in the review of its transaction that it does not have the motive to withhold its programming from competitors; yet that is exactly what it is doing. Both DISH and Sling are competing in the marketplace to attract subscribers, and by withholding Time Warner content from them, AT&T is able to harm their ability to compete.

Federal antitrust authorities, including the FTC, should be investigating these practices and how they can further skew the marketplace to favor the large, vertically integrated BIAS providers and disadvantage the online content (edge providers) and smaller BIAS providers that they may compete with, as well as competitive MVPDs. Given their market power in the BIAS marketplace, as we discussed in Section IV, the vertical integration of BIAS with content is very different than other types of vertical integration that antitrust authorities may find as beneficial. As we discussed above, large BIAS providers are in the position and have charged non-cost based tolls of competitive online providers, raising their rivals' costs. Also, by withholding content altogether from competitive MVPDs and OVDs, they can harm their competitors' ability to attract and maintain subscribers.

## **VI. ADHERENCE TO POLICIES ENCOURAGING A ROBUST DEPLOYMENT AGENDA WILL PROMOTE BROADBAND COMPETITION**

INCOMPAS appreciates the federal government's focus on lowering barriers to broadband deployment and believes the FCC's recent actions to promote both wired and wireless

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<sup>88</sup> See Karl Bode, *How the new AT&T could bully its way to streaming domination*, THE VERGE (Dec. 18, 2018, 8:55 AM), <https://www.theverge.com/2018/12/18/18146186/att-time-warner-streaming-video-net-neutrality>.

broadband deployment are critical steps to encouraging and enabling more fiber builds that are crucial to bringing competition to the fixed broadband market. INCOMPAS advocated for and supports the FCC's recent adoption of its OTMR policy in August<sup>89</sup> and its small cell deployment agenda adopted in March<sup>90</sup> which will help address some of the significant delays that our competitive fiber (and wireless) providers have experienced.<sup>91</sup> To further promote competitive fiber builds and fixed broadband competition, we have encouraged the FCC to complete its wireline and wireless deployment proceedings and adopt the remaining policies INCOMPAS supports, including (1) shot clocks applicable to wireline fiber deployment applications (as was done for wireless deployment), and (2) limiting rights-of-way use charges and siting application fees, consistent with Sections 253 and 332.<sup>92</sup>

**i. Large incumbent providers consistently attempt to slow competitors' broadband deployment**

The FCC has made significant steps in lowering the barriers to both wired and wireless broadband deployment. The pending petition by USTelecom for forbearance from ILEC unbundling and resale obligations of the Telecom Act of 1996, however, poses a substantial risk to the build out of fiber networks in underserved urban, rural and suburban areas—areas that tend

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<sup>89</sup> See *Wireline Deployment Third Report and Order*, *supra* n. 28.

<sup>90</sup> See *Wireless Deployment Second Report and Order*, *supra* n. 29.

<sup>91</sup> However, twenty states have reverse preempted the FCC's pole attachment policies, so the impact will be uneven across the nation. See *Wireline Deployment Third Report and Order* at ¶ 5. As such, INCOMPAS urges the FCC to encourage states to follow suit and adopt the OTMR policy.

<sup>92</sup> Reply Comments of INCOMPAS, WTB Docket No. 17-79, at 7-10 (filed July 17, 2017).

to be ignored by the bigger carriers' buildout plans.<sup>93</sup> Small, competitive fiber builders use the FCC's existing UNE and resale policy to build more and faster fixed broadband networks to residential consumers, small and medium-sized businesses, as well as schools, libraries, healthcare, public safety and other local and state government agencies. In fact, many competitive providers rely on UNEs that are subject to USTelecom's Forbearance Petition—services such as unbundled dark fiber and copper loops, etc.—to enter and compete in the broadband marketplace, including bringing broadband to areas without it for the first time.<sup>94</sup> These provisions of the Act allow competitors to build their customer base until they have a sufficient standing to support extending their own fiber either to the remote terminal or to the customer premises. As the U.S. Small Business Administration explained in a letter to the FCC, the presence of CLECs using UNEs as a bridge to building fiber has pressured incumbents to do likewise.<sup>95</sup>

We incorporate into the record our opposition to the Petition and our economic filings in that proceeding that demonstrate competitors using UNEs (1) build more fiber than incumbents

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<sup>93</sup> See Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks, WC Docket No. 18-141 (filed May 4, 2018) (“USTelecom Forbearance Petition”) (seeking forbearance from Section 251(c) unbundling and resale requirements and related obligations, and certain Section 271 and 272 requirements).

<sup>94</sup> See Opposition of INCOMPAS, et al., WC Docket No. 18-141 (filed Aug. 6, 2018), at 4, *available at* <https://ecfsapi.fcc.gov/file/10806210367023/Opposition%20of%20INCOMPAS%20to%20USTA%20Petition%20%5BREDACTED%5D.pdf> (“Opposition”).

<sup>95</sup> See Letter from Major L. Clark, Acting Chief Counsel, U.S. Small Business Administration, to Marlene Dortch, FCC, CG Docket Nos. 18-152, 02-278, WC Docket No. 17-84, WT Docket No. 17-79, GN Docket No. 17-258, WC Docket No. 18-141 (filed Aug. 1, 2018), at 3, *available at* [https://ecfsapi.fcc.gov/file/10801393021926/SBA%20Ex%20Parte\\_08\\_01\\_18.pdf](https://ecfsapi.fcc.gov/file/10801393021926/SBA%20Ex%20Parte_08_01_18.pdf).

in areas where these competitors operate; (2) deliver faster broadband speeds than incumbents; and (3) offer lower prices and better service to customers.<sup>96</sup> Indeed, the current UNE policy incents competitors and incumbents alike to build more broadband; and in markets where a smaller, competitive broadband provider has deployed new fiber, they offer gigabit speeds at a fraction of the cost, and incumbent providers are forced to respond with network upgrades and lower prices.<sup>97</sup> If the FCC grants the Petition as proposed, however, competitive fiber providers' abilities to continue to build fiber will be significantly impacted. In turn, USTelecom's members, notably AT&T, Verizon, CenturyLink, and Frontier, will be able to charge substantially higher rates for broadband services, allowing them to earn substantially more on their existing copper networks through rate increases. Where customers are captive and paying monopoly rates for slower services, AT&T and the other USTelecom members would not have an economic incentive to deploy fiber. Service quality is also likely to degrade, as it does in all monopoly markets—if there is no competitive threat, there is less incentive for rapid repair or service innovation. USTelecom's Petition for Forbearance is clearly detrimental to fixed broadband availability and competition. There is overwhelming opposition by a number of diverse stakeholders, including broadband providers, state and federal agencies, and consumer and public interest groups. Indeed, about nine thousand individual consumers and small

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<sup>96</sup> See Opposition, Attachment 2, Zarakas Declaration, at 3-4 & 9-11.

<sup>97</sup> See *id.*, Attachment 1, Sappington Declaration, at 14-17. Dr. Sappington also discusses how the UNE policy benefits consumers so that they are not limited to a monopoly or duopoly choice which both fail to produce the types of benefits that consumers enjoy in a competitive market. *Id.* 9-13. See also Comments of INCOMPAS, WC Docket No. 17-199, Exhibit A, David S. Evans, *Economic Findings Concerning the State of Competition for Wired Broadband Provision to U.S. Households and Edge Providers*, at 35-37 (filed Sept. 21, 2017).

businesses have submitted distinctive letters asking the FCC to preserve their competitive choice and reject this petition.

**ii. Access to MTEs Enables Broadband Competition.**

INCOMPAS has also sought to improve competitive broadband providers' access to MTEs, which will improve fixed broadband competition. More than thirty percent of Americans live in multifamily buildings<sup>98</sup> and those residents have fewer options for broadband service than those living in single-family homes in the same community.<sup>99</sup> Despite the FCC's efforts to reduce commercial barriers to entry in MTEs, evidence of a growing disparity between consumer demand for increased Internet speeds, lower prices, and competition and what MTE owners and landlords actually make available to their residents should lead the FCC and FTC to revisit this issue.

INCOMPAS has urged the FCC to take a close look at certain commercial arrangements that have a particularly negative effect on competition. Graduated revenue sharing as well as wiring and rooftop exclusivity arrangements have been used by incumbent communications providers and landlords to circumvent the access rules and exclude competitive providers from

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<sup>98</sup> See Table from the U.S. Census Bureau's 2010-2014 American Community Survey 5-Year Estimates, [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_13\\_5\\_YR\\_B25024&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_5_YR_B25024&prodType=table) ("American Community Survey") (showing that thirty percent of American homes are in multifamily buildings).

<sup>99</sup> See Carl Kandutsch, *Internet Choice in Apartment Buildings*, Broadband Communities, at 1 (Dec. 2016), [http://www.bbcmag.com/2016mags/Nov\\_Dec/BBC\\_Nov16\\_InternetChoice.pdf](http://www.bbcmag.com/2016mags/Nov_Dec/BBC_Nov16_InternetChoice.pdf) ("It is undeniable that some owners of multiple- dwelling-unit buildings ("MDUs"), for the primary purpose of lining their pockets, have historically made—and still make—access deals with cable and broadband service providers that restrict or foreclose the entry of competing service providers. The result is that residents have fewer cable and broadband service provider options than their neighbors who live in single-family homes.").

MTEs. In short, revenue sharing is a kickback from the provider to the landlord.<sup>100</sup> The effect of revenue sharing—if not the outright purpose—is to stifle competition. The use of revenue sharing arrangements has created an expectation on the part of landlords, such that competitive broadband and video providers that are unable or unwilling to participate in revenue sharing schemes are denied access. Furthermore, other practices, particularly marketing exclusivity agreements have been used as artificial barriers to deny competitors’ access to MTEs.<sup>101</sup> INCOMPAS supports further action to prohibit these practices, which amount to an end-run around current FCC rules that are intended to promote competitive options.

Competitive providers have an improved business case where they can serve MTEs and are more likely to deploy next generation networks in surrounding communities where they have competitive entry into multifamily buildings. Therefore, INCOMPAS has urged the FCC to encourage, rather than consider preemption of, local access laws that enable competitive entry.<sup>102</sup> Mandatory access laws arose at a time when cable companies were just beginning to offer service, and landlords were unwilling to provide those companies access to their buildings.<sup>103</sup>

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<sup>100</sup> Such kickback arrangements in other contexts—specifically, payola—are unlawful and prohibited under the FCC’s rules. *See* 47 C.F.R. §§ 73.1212, 76.1615.

<sup>101</sup> *See* Comments of INCOMPAS, GN Docket No. 17-142, at 9-20 (filed July 24, 2017); *see also* Reply Comments of INCOMPAS, GN Docket No. 17-142 (filed Aug. 22, 2017).

<sup>102</sup> *See* Reply Comments of INCOMPAS, MB Docket No. 17-91 (filed June 9, 2017) (arguing that a recently passed access law in San Francisco should not face federal preemption because it increases MTE residents’ access to competitive communications services, lawfully eliminates a major barrier to entry for competitive providers, and furthers the FCC’s goals of accelerating deployment of high-speed Internet access).

<sup>103</sup> *Telecommunications Services Inside Wiring, Customer Premises Equipment, Implementation of the Cable Television Consumer Protection and Competition Act of 1992; Cable Home Wiring, First Order on Reconsideration and Second Report and Order, FCC 03-9, 18 FCC Rcd. 1342 (2003) (“2003 Inside Wiring Order”), at ¶¶ 36-39.*

Born in an age where the only incumbent provider was the telephone company, mandatory access laws essentially served as consumer protection laws and granted specific rights to franchised cable operators.<sup>104</sup> But over the years, this formulation has served to grant those cable operators special treatment over new entrants, with the potential for anti-competitive results.<sup>105</sup> Notwithstanding that potential, the FCC has repeatedly declined to preempt such laws, instead encouraging states and local governments to recognize the potential for competitive harm and reform their laws accordingly.<sup>106</sup>

In San Francisco, where the city implemented such a law, one INCOMPAS member is now able to provide fiber to over 1,000 buildings, bringing a lower-cost, higher-speed 1 gigabit option to consumers in those buildings, as well as improving the business case for building fiber and 5G networks in the surrounding communities.<sup>107</sup> Article 52 of San Francisco's Police Code promotes competitive broadband deployment while specifically addressing the anticompetitive practice of wiring exclusivity.<sup>108</sup> Rather than codifying special treatment for one kind of provider—franchised cable operators—this law requires building owners to provide access to all communications providers who qualify under the law—that is, when a resident would like to purchase a competitor's service.<sup>109</sup> Article 52 puts the choice of provider back in the hands of the

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<sup>104</sup> *See id.* at ¶ 35.

<sup>105</sup> *See id.*

<sup>106</sup> *See id.* at ¶ 39.

<sup>107</sup> *See Reply Comments of CALTEL, GN Docket No. 17-142, at 3 (Aug. 22, 2017).*

<sup>108</sup> *See Opening Comments of the City and County of San Francisco, MB Docket No. 17-91 (filed May 18, 2017), at 7-8.*

<sup>109</sup> *See id.* at 6-7

consumer, allowing residents to decide when and if to switch services. Other cities and governments are following San Francisco's example.<sup>110</sup> Given the current barriers to entry in multifamily buildings, INCOMPAS encourages the FTC to consider the impact on competition in these buildings and surrounding communities and taking steps necessary to improve the broadband options, including the fiber builds that will be necessary for 5G, for consumers who are living in MTEs and their surrounding communities.

### **CONCLUSION**

While progress has been made, there is still significant need for federal government to enable broadband availability and competition throughout the nation. INCOMPAS encourages the FTC to promote the policies we discussed above that will further enable broadband availability and competition.

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<sup>110</sup> See Reply Comments of the City of Boston, Massachusetts, MB Docket No. 17-91 (filed June 9, 2017), at 8.

## ATTACHMENT A

### INCOMPAS SERVICE PROVIDER MEMBERS

Access One, Inc.	Hilliary Communications, LLC
Allstream	IdeaTek Telcom, LLC
Amazon	Inteliquent
Bandwidth	Mammoth Networks
BT	Microsoft
C Spire	Midcontinent Business Solutions
Cogent Communications, Inc.	Netflix Inc.
Comspan Communications, Inc.	Rocket Fiber
Consolidated Communications	Rural Broadband Now! LLC
Crown Castle Fiber	Segra
Dialog Telecom LLC	Smartcon Telephone, LLC
Digital West	Socket Telecom, LLC
DISH	Sonic
Easton Telecom Services, LLC	Telequality Communications, LLC
Facebook	Telestax
Fatbeam, LLC	Televergence
First Communications LLC	TelNet Worldwide
FirstLight Fiber	Twitter
Fuse Cloud	Unite Private Networks
Fusion Connect Inc.	Uniti Fiber
Google Fiber	Virginia Global Communications
Google Networks, Inc.	Wave Wholesale
Granite Telecommunications LLC	West Telecom Services, LLC
GTT	Wide Open West (WOW!)
GWI	Windstream
	ZenFi Networks