



July 2, 2021

U.S. Senate Committee on Commerce, Science, and Transportation  
Subcommittee on Communications, Media, and Broadband  
425 Hart Senate Building  
Washington, DC 20510

**Re: Building Resilient Networks Hearing on June 22, 2021**

Dear Chairman Luján and Ranking Member Thune:

The nation faces a critical choice: start building the next generation of high-speed broadband networks or get left behind by China, the European Union and the United Kingdom who have set gigabit goals to win the race for the jobs of the future.

INCOMPAS, the internet and competitive networks association, represents a diverse membership, including competitive network builders who deploy next-generation communications networks across the country. Such deployment includes fiber, fixed wireless, mobile, and satellite broadband. Our companies are making substantial investments in broadband infrastructure and innovative technologies to offer residential, small business, enterprise customers, and anchor institutions, such as schools, libraries, and hospitals, cutting-edge services at affordable prices in urban, suburban, and rural areas.

INCOMPAS believes that “Internet for All” should be a call-to-action as a result of COVID-19, other natural disasters, and the growing digital divide in this country. As our lives and economy continue to adapt and rely more heavily on broadband services, the commitment to reach all Americans with better, faster, more affordable broadband connectivity must be embraced as there are still too many communities and citizens that remain unserved or underserved.

We applaud the work of Congress and the Biden Administration in recognizing that despite our nation’s best efforts and significant investment by the public and private sectors, we still face serious challenges in connecting all Americans. This includes homes, schools, and businesses of all sizes to reliable high-speed broadband. In response to the Subcommittee’s latest hearing on “Building Resilient Networks,” INCOMPAS supports your leadership in prioritizing funding for the deployment of new, faster and more resilient networks that can meet our nation’s needs today and in the future.

As former FCC Commissioner Mignon Clyburn recently announced as part of our new BroadLand campaign launch, “[i]n a nation that stands for liberty and justice for all, we must

have internet for all.”<sup>1</sup> Unfortunately, we hear too often about kids doing homework in parking lots because they lack access to fast, affordable broadband at home. This is a national tragedy. To meet this challenge, we ask the federal government to help enable solutions that will make a significant difference in the lives of all Americans. It is very important that robust and resilient broadband capability be deployed to government agencies, residences, businesses, and town centers as fast as possible.

To that end, INCOMPAS supports a significant federal investment in broadband infrastructure deployment so the U.S. can compete with other nations who have 1 gigabit speed and universal fiber goals. INCOMPAS believes it is critical that federal dollars be made in robust and reliable networks that can offer where it is feasible at least 1 gigabit fixed connectivity today and higher speeds in the future. As we saw in the Federal Communications Commission’s recent Rural Digital Opportunity Fund (RDOF) reverse auction for unserved census blocks, there was significant interest in delivering 1 gigabit connectivity. Indeed, most of the winning bids were in the gigabit tier,<sup>2</sup> and a number of INCOMPAS members won funding to deploy this much needed broadband infrastructure. According to the leading ISPs and their trade associations, about 85% of Americans have access to 1 gigabit networks;<sup>3</sup> thus, it is critical to ensure that the remaining 15% also have an opportunity to 1 gigabit connectivity so they are not left behind.

We believe an investment of at least \$65 billion for deployment and adoption is needed as an initial down payment in the infrastructure package Congress is contemplating. To adequately address broadband availability gaps in rural and urban communities, the funds allocated to increase broadband deployment should be structured like those in the BRIDGE Act or the Accessible, Affordable Internet for All Act which are based on evidence-based best practices, and a funding approach that permits states to identify and address those geographic areas in need will be important in ensuring that every state has an opportunity to have its deployment needs met.

To enable more scalable, robust, and reliable networks to be deployed in areas that are lacking adequate service, government funding should be used wisely on future proof technology,<sup>4</sup> and it should recognize that investment in backbone, middle mile, and/or last mile networks may be necessary. Indeed, fiber is a critical component in delivering reliable broadband infrastructure

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<sup>1</sup> <https://broadlandusa.com/>

<sup>2</sup> See Rural Digital Opportunity Fund Phase I Results, available at [Rural Digital Opportunity Fund Phase I Results \(fcc.gov\)](#); see also Joan Engebretson, “RDOF Winner Map: Fiber, Fixed Wireless Win Big, Winners Commit to Gigabit Speeds,” Telecompetitor, Dec. 8, 2020, available at <https://www.telecompetitor.com/rdof-winner-map-fiber-fixed-wireless-win-big-winners-commit-to-gigabit-speeds/>.

<sup>3</sup> New National Coalition: It’s Time To Ensure All Americans Can Connect To The Internet; America’s Broadband Future Will Advocate for Effective Solutions to Comprehensively Address the Digital Divide, News Release, May 14, 2021, available at <https://americasbroadbandfuture.org/2021/05/press-release-5-14-2021-2/>.

and 1 gigabit speeds. Faster speeds are key, and we must build a future proof fiber backbone that supports all technologies—wired, wireless, satellite, 5G, and small cells—that can connect diverse communities large and small. In fact, every technology in the broadband ecosystem needs access to fiber, and a number of ISPs in the U.S. are now committing to deploy fiber to the premise, pole, and tower as they recognize that increasing network demands require it. For example, Charter Communications, Inc. announced the launch of a multi-year, multi-billion dollar broadband buildout initiative to deliver gigabit high-speed broadband access to more than 1 million unserved customer locations. Charter expects to invest approximately \$5 billion to support its fiber buildout initiative—offset by \$1.2 billion in support won from the RDOF auction.<sup>5</sup> Other large ISPs making significant investments in fiber include AT&T. It plans to double the number of locations where it offers fiber Internet, from around 15 million to around 30 million by 2025, with the carrier planning to increase its annual capital expenses by \$3 billion.<sup>6</sup> Also, Windstream's Kinetic broadband division is accelerating its own deployment of symmetrical fiber-backed gigabit broadband service by recently announcing a multi-year, \$2 billion expansion project.<sup>7</sup>

This week 172 organizations called on Congress to make future proof fiber the foundation for federal investment in broadband networks.<sup>8</sup> These organizations span the political spectrum and represent the nation's leading consumer and public interest advocates, farming, education, libraries, health, and local advocates for cities large and small, and competitive ISPs and trade groups that represent both wired and wireless providers. These organizations understand that building more fiber helps all, and fiber densification throughout the U.S. is critical for winning the race to 5G.

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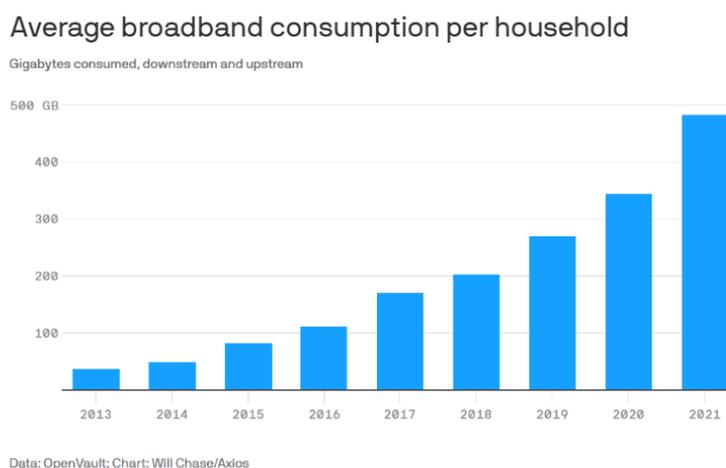
<sup>5</sup> Charter Communications Launches New Multiyear, Multibillion-Dollar Initiative To Expand Broadband Availability To Over 1 Million New Customer Locations (Feb. 2021) *available at* <https://corporate.charter.com/newsroom/charter-communications-launches-new-multiyear-multibillion-dollar-initiative-to-expand-broadband-availability-to-over-1-million-new-customer-locations>. In a filing at the FCC related to the RDOF, it explains that its buildout is with fiber. Charter Waiver Request, May 11, 2021, at Exec. Summary and page 2, *available at* [https://ecfsapi.fcc.gov/file/10511434226946/Charter%20RDOF%20Waiver%20Request%20-%20KY%2C%20MA%2C%20MO%2C%20VA%2C%20WI%20\(5-11-21\).pdf](https://ecfsapi.fcc.gov/file/10511434226946/Charter%20RDOF%20Waiver%20Request%20-%20KY%2C%20MA%2C%20MO%2C%20VA%2C%20WI%20(5-11-21).pdf).

<sup>6</sup> Is AT&T's fiber investment a good idea? (June 2021) *available at* <https://www.lightreading.com/opticalip/is-atandts-fiber-investment-good-idea/d/d-id/770468>.

<sup>7</sup> Kinetic by Windstream Builds Fiber Gigabit Connections to Nearly 130,000 Locations in the First Quarter Of 2021 (May 2021) *available at* <https://investor.windstream.com/news/news-details/2021/Kinetic-by-Windstream-Builds-Fiber-Gigabit-Connections-to-Nearly-130000-Locations-in-the-First-Quarter-Of-2021/default.aspx>.

<sup>8</sup> June 28, 2021 Letter to Congressional Leaders, *available at* [https://www.incompas.org/Files/filings/2021/06-28-21%20FINAL%20Federal%20broadband%20infrastructure%20coalition%20letter%20\(002\).pdf](https://www.incompas.org/Files/filings/2021/06-28-21%20FINAL%20Federal%20broadband%20infrastructure%20coalition%20letter%20(002).pdf).

INCOMPAS’ new network builders are delivering 1 gigabit and above speeds today and will scale their networks as broadband usage and demand increase. New networks that will be built with federal funding must also be able to deliver symmetrical speeds and scale as much as possible.<sup>9</sup> The ability to scale is important because the use of the network is increasing significantly every year.<sup>10</sup> According to Open Vault, broadband usage increased 40% over the past year, the highest annual growth rate in nearly 10 years. The chart below demonstrates the gigabyte consumption increasing per household,<sup>11</sup> and we anticipate that consumption will continue to grow given the proliferation of connected devices, cloud computing, and two-way streaming needs for business, education, and entertainment:



Given that we have seen a significant shift of work and educational needs to homes; that Americans expect robust connectivity no matter their location; that the average American

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<sup>9</sup> See Jonathan Sallet, *Broadband for America Now* (Oct. 2020), at 22 (explaining that “[f]ast uploads and downloads are non-negotiable, because these symmetrical speeds reflect how Americans are using connections today— from hybrid learning to connecting with doctors”), available at [https://www.benton.org/sites/default/files/BroadbandAmericaNow\\_final.pdf](https://www.benton.org/sites/default/files/BroadbandAmericaNow_final.pdf).

<sup>10</sup> See Cisco’s Annual Internet Report (March 2020) (explaining that the “number of devices connected to IP networks will be more than three times the global population by 2023.”), available at <https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/annual-internet-report/white-paper-c11-741490.html>; see also PEW, *How Much Broadband Speeds Do Americans Need?* (Nov. 30, 2020) (“[t]he pandemic has resulted in 18% growth in in-home data use, comparing March 2019 to March 2020. The typical U.S. household has 11 internet-connected devices, and research indicates that this trend will likely grow.”), available at <https://www.pewtrusts.org/en/research-and-analysis/articles/2020/11/30/how-much-broadband-speed-do-americans-need>.

<sup>11</sup> See Sara Fischer, Margaret Harding McGill, Axios, “Broadband usage will keep growing post-pandemic,” May 4, 2021 available at <https://www.axios.com/broadband-usage-post-pandemic-increase-32d0858b-9f54-4065-aa9b-b1716dcf6c2f.html>.

household now has 25 connected devices, ranging from laptops, smartphones and smart TVs to gaming consoles, smart home devices and connected fitness machines;<sup>12</sup> and that industries across the economy are becoming more reliant on broadband connectivity, it is time for us as a nation to recognize that our public sector investment should be made in broadband infrastructure that can meet our needs today and in the future.<sup>13</sup>

Broadband infrastructure that is deployed in a community by local employees or contractors and can be scaled via software updates can help support job growth and internet growth. Encouraging investment in infrastructure that can scale to 1 gigabit connectivity also should be included in network requirements receiving federal funding. As discussed above, other countries in the world are setting 1 gigabit and/or fiber goals,<sup>14</sup> and a number of U.S. areas have access to gigabit connectivity today and will be getting it through the FCC's RDOF.<sup>15</sup> Thus, a recognition that infrastructure should be scalable over time and that speeds are expected to increase in order to keep pace with usage patterns is appropriate.

Congress should direct federal funding to areas that do not have access to at least 100/20 Mbps wired service today. In urban and suburban areas, most consumers are taking at least 100/20 Mbps service in their homes,<sup>16</sup> and that is the level of service (or higher) most advertised by the

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<sup>12</sup> See Deloitte's "2021 Connectivity and Mobile Trends Survey," June 9, 2021 *available at* [https://www2.deloitte.com/content/dam/insights/articles/6978\\_TMT-Connectivity-and-mobile-trends/DI\\_TMT-Connectivity-and-mobile-trends.pdf](https://www2.deloitte.com/content/dam/insights/articles/6978_TMT-Connectivity-and-mobile-trends/DI_TMT-Connectivity-and-mobile-trends.pdf).

<sup>13</sup> Letter from Lisa R. Youngers, President and CEO of Fiber Broadband Association to FCC, WC Docket No. 19-126 (filed Jan. 3, 2020) (explaining that that the "burgeoning upstream demand is being driven by widespread consumer adoption of such 'producer' apps/content as social media, gaming, video sharing, video conferencing, and other applications."); *see also* Bennett Cyphers, *The Case for Fiber to the Home, Today: Why Fiber is a Superior Medium for 21st Century Broadband*, Electronic Frontier Foundation (Oct. 16, 2019); *available at* <https://www.eff.org/wp/case-fiber-home-today-why-fiber-superior-medium-21st-century-broadband>.

<sup>14</sup> See Appendix A of INCOMPAS' Comments to the Department of Treasury, June 16, 2021, *available at* <https://www.incompas.org//Files/filings/2021/06-16-21%20INCOMPAS%20Comments-%20State%20and%20Local%20Fiscal%20Recovery%20Funds%20Interim%20Final%20Rule.pdf>.

<sup>15</sup> See Statement of Commissioner Rosenworcel, Rural Digital Opportunity Fund, Connect America Fund, Report and Order, WC Docket Nos. 19-126, 10-90 (rel. Feb. 7, 2020) (*stating* "we are going to need more symmetrical upload and download speeds as we move from an internet that is about consumption to one that is about creation.").

<sup>16</sup> FCC subscriber data collected before the pandemic shows that about 60% of fixed broadband was for 100 Mbps download or higher service. See FCC Fourteenth Broadband Deployment Report, Fig. 11 (2021) *available at* <https://docs.fcc.gov/public/attachments/FCC-21-18A1.pdf>.

major ISPs.<sup>17</sup> In fact, Ookla finds that the average U.S. fixed internet download speed is now 191.97 Mbps and upload speed is 67.80 Mbps. Moreover, the nation’s leading ISPs and their trade associations recognize that 90% of Americans have access to networks providing downstream speeds of at least 100 Mbps;<sup>18</sup> we should be certain that all Americans have such access. Accordingly, it is important that U.S. broadband policy encourages this robust and reliable new network availability across the nation as much as possible, and if a community does not already have 100/20 wired service today, it needs further investment now. No community should be left off or expected to thrive if it only has a network that does not meet today’s current average usage, much less the ability to handle future use. It is imperative that this once in a lifetime investment by Congress should set every community on a path to secure their economic future to a broadband network capable of meeting their long-term needs.

When it is available to them, more consumers are moving to higher speeds and broadband services that offer symmetrical upload because of the shift to uses that are based on creation rather than consumption.<sup>19</sup> With two-way video needs for work, education, and healthcare increasing significantly, and uploading data related to these endeavors, federal funding should require that federal funds be used for technologies that can meet these needs. Symmetrical internet is critical for students, businesses, telecommuters, and content creators. This is because these types of Internet users often upload PDFs, large graphic files, and videos to the internet so that they can share them with clients, coworkers, teachers, and students. Uploading files that are 1 gigabyte in size can take significantly longer with only 10 Mbps upload—15 minutes as compared to 1.5 minutes at 100 Mbps.<sup>20</sup> And with more people working and schooling from home and the number of devices connected to the Internet increasing, upload speed is critical to meeting the economic needs of the nation.

In addition, any funding assistance that may come from new infrastructure legislation should be directed to local jurisdictions to help hire, train, and/or expand their capability to process

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<sup>17</sup> Using the Federal Communication Commission’s (FCC) Broadband Speed Guide, a household with two telecommuters and two to three remote learners today are estimated to need 100 Mbps download to work simultaneously. Federal Communications Commission, Broadband Speed Guide, available at <https://www.fcc.gov/consumers/guides/broadband-speed-guide>. It is not surprising that Americans are buying higher speeds given the demand of connectivity requirements.

<sup>18</sup> New National Coalition: It’s Time To Ensure All Americans Can Connect To The Internet; America’s Broadband Future Will Advocate for Effective Solutions to Comprehensively Address the Digital Divide, News Release, May 14, 2021, available at <https://americasbroadbandfuture.org/2021/05/press-release-5-14-2021-2/>.

<sup>19</sup> See Ookla Speedtest, United States’s Mobile and Fixed Broadband Internet Speeds, available at: <https://www.speedtest.net/global-index/united-states> (last visited June 7, 2021).

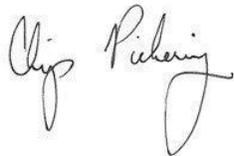
<sup>20</sup> *What is Symmetrical Internet?* (March 2020): [What Is Symmetrical Internet and Is it Worth It? | Reviews.org](https://www.reviews.org/internet-service/what-is-symmetrical-internet/), available at <https://www.reviews.org/internet-service/what-is-symmetrical-internet/>.

broadband infrastructure permitting and approval processes. We urge you to incentivize state and local governments to adopt speedy review processes of those projects when broadband providers seek authorization to access public rights-of-way and obtain construction permits and to charge cost-based fees for those processes. These network builds are needed now, and these actions will spur faster and more efficient deployment which will benefit consumers who are desperately waiting for new networks to reach them.

We have the ability and responsibility as Americans to go big and bold on broadband. To harness the power of an internet for all that powers the streaming and cloud-driven economy. Now is the time to take steps toward achieving a future of connectivity, faster speeds, and affordable prices in the U.S. We are looking to your leadership and Congress for creating new infrastructure goals and urging your colleagues to have targeted broadband policies that enable all Americans to access high-speed internet no matter where they live or work, and we hope to have your continued support.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Chip Pickering". The signature is written in black ink and is positioned above the typed name and title.

Chip Pickering  
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