



June 7, 2021

Via E-Mail

Attn: Diane Steinour
National Telecommunications and Information Administration
1401 Constitution Ave NW
Room 4701
Washington, DC 20230
dsteinour@ntia.doc.gov

Re: Hughes Network Systems, LLC Comments in Docket No. 210503-0097

Dear Ms. Steinour,

Hughes Network Systems, LLC (HUGHES) submits these comments in response to the National Telecommunications and Information Administration's request for comments on the Connecting the Unconnected Worldwide in Light of the ITU's WTDC-21 (Connecting the Unconnected) proceeding.¹ Hughes is the largest provider of broadband satellite services globally and in the United States, offering 25/3 Mbps speeds across the continental United States, southern Alaska, Puerto Rico, and the Virgin Islands.² In addition, Hughes provides broadband services across Latin America and is a global systems integrator.³ Hughes is also preparing to launch its latest broadband satellite, the FCC-licensed JUPITER[®] 3, in 2022, which will be capable of providing up to 100 Mbps of service throughout the continental United States. As part of its global broadband services, Hughes offers directly, or in partnership with other operators and/or governments, community Wi-Fi hubs. These systems are successful at connecting some of the most remote and rural parts of the world at a lower cost through community centers and shops.

Hughes is proud to be part of the broadband solution in many countries around the world, including in the most rural and remote regions. As such, Hughes supports the Administration's efforts in Information and Communications Technology (ICT) development and, at the World Telecommunications Development Conference (WTDC), to enable the provision of broadband connectivity to unserved and underserved communities worldwide.

1. ICT Development Priorities

- a. *Over the next five years, what should the U.S. Government priorities be for telecommunications/ICT development?*

Over the next five years, the U.S. government should prioritize maintaining and developing telecommunications/ICT around the world to support telehealth, telework, tele-education, and other critical broadband initiatives, particularly in the most remote and rural areas. In light of information gathered during the ongoing COVID-19 pandemic, it has been determined that people in remote and rural places without access to broadband are quickly left behind. It is vital that the U.S. Government prioritize initiatives that give everyone a chance at maintaining their education, employment, and health regardless of where they choose to or are forced to live.

¹ National Telecommunications and Information Administration, Request for Comment, Connecting the Unconnected Worldwide in Light of the ITU's WTDC-21, Docket No. 210503-0097

² U.S. News & World Report has named Hughes as the best satellite broadband service provider in the United States. See U.S. News & World Report, Best Satellite Internet Providers of 2021 (Dec. 14, 2020) available at <https://www.usnews.com/360-reviews/internet-providers/satellite-internet>.

³ "About Hughes," webpage, available at: <https://www.hughes.com/about-hughes>

To best advance this initiative, it is critical that the U.S. Government prioritize these broadband programs on a technology-neutral basis. There is no one-size-fits-all technology, so technology neutrality is key to accommodating different geographical and economic limitations and ensuring that the correct technology is being utilized. In many cases, it will take a variety of terrestrial and non-terrestrial solutions, including satellite broadband, to successfully meet the needs for broadband deployment. In particular, satellite broadband is an optimal solution where geography and/or deployment costs make terrestrial broadband unattractive. In addition, satellite broadband can be deployed in a matter of days as opposed to the months or years often required for terrestrial broadband deployment. This is an especially important consideration in countries with difficult terrain or geography or where the cost to deploy terrestrial broadband infrastructure is not economically sustainable. For instance, in communities throughout Maranhao, Brazil, Hughes is providing HughesNet® broadband service to customers despite the heavy forestation and lack of traditional infrastructure caused by the remote geography of the area.⁴

- b. *Are there particular areas of focus for economic development as well as telecommunications/ICT development that might help the United States align with developing countries' development interests?*

Most immediately, it is important to focus on broadband deployment supporting telehealth, tele-education, and telework consistent with U.S. ICT policy. By working alongside public-private industries, the U.S. should initiate projects in key developing countries that can serve as models for economic development around the globe. As discussed below, community Wi-Fi programs are a good model where local businesses are able to provide a hub for low-cost broadband to the community. This can serve as a gateway into subscriber-based broadband for a variety of users in the community, including for education, entrepreneurial endeavors, and telehealth. For instance, the [Connecting the Unconnected with Wi-Fi Access](#) video demonstrates how this project is improving life in Santa Barbra Village, Brazil.

- c. *What are valuable venues, forums, or methods to focus this work?*

The ITU-D and the development sectors of relevant regional bodies are acceptable forums in which to promote telehealth, telework, tele-education, and other critical broadband initiatives. The United States should work with industry, civil society, and international organizations to develop widely available educational resources promoting the development and adoption of telecommunications/ICTs. There are a number of options that the U.S. government should consider to achieve this goal. One would be for the United States to work alongside industry stakeholders to create and share case studies of how different technologies have supported a variety of broadband initiatives—including funding in rural areas and public-private partnerships—and how these initiatives advanced the achievement of critical societal goals, such as improved access to education and healthcare. These case studies should be broad and provide successful case studies of broadband in different geographic regions for different technologies. By sharing information on a wide variety of successful broadband deployment models for a variety of purposes, governments will have models to reference when solving their own broadband connectivity issues.

2. US Stakeholder Community

a. In General:

- i. *What are the challenges or barriers towards connecting the unconnected? Are there particular lessons or policy approaches regarding the gender digital divide?*

There are many challenges and barriers to connecting the unconnected, including geography, cost of deployment, and regulatory hurdles. In addition, the populations that are least likely to be connected are also the most vulnerable and remote. Satellite technology can reach these hard-to-reach and remote populations quickly and efficiently in a way that terrestrial services cannot. After a broadband satellite is operational, deployment of service takes only days compared to the months or years it may take to deploy terrestrial fiber. Further, the cost to

⁴ [Internet Banda Larga via Satélite | HughesNet Brasil - Internet Banda Larga Via Satélite](#)

deploy satellite in rural areas is dramatically cheaper than terrestrial facilities in the most rural and remote locations.

Satellite operators can help overcome challenges with adoption as well. As previously mentioned, satellite broadband offers the ability to provide Community Wi-Fi hubs in some of the most remote parts of a country. With Community Wi-Fi, a terminal is provided a specific amount of capacity that can then be purchased by others in the community, similar to a prepaid calling card. This provides a low-cost method of accessing broadband without requiring individuals to purchase a terminal or subscribe for long periods of time. However, as users have the opportunity to utilize broadband in this manner, they may build confidence in the use of broadband and find additional value. In this case, these users can make the decision to subscribe to broadband at home. This approach has shown to be successful in several markets, including Mexico, Russia, India, and Brazil and demonstrates how broadband deployment and accessibility issues can be overcome.

Support for programs (like community Wi-Fi) that allow access to broadband also helps to address the gender divide by offering women and other excluded individuals an opportunity to develop businesses and obtain education. As we have seen from micro-finance,⁵ as women are able to work and bring in money to support their families, the quality of life in rural and remote areas increases. Broadband can be an important enabler in this area, and governments—working alone and in public-private partnerships as Hughes has done in Mexico and Brazil—can help address these economic and social divides.

Furthermore, for any option to work, policies must be enacted to ensure that there are no unnecessary regulatory barriers to entry. With regard to satellite broadband, it is critical that regulators enable the deployment on a cost-effective basis and with minimal barriers for VSAT terminals. In order to achieve this, regulators should adopt blanket licensing approaches for licensing VSAT terminals. In addition, regulators should only charge cost-based fees for licensing to match the actual amount of work it takes for licensing. This will prevent fees from one regulated area from subsidizing the costs incurred by the regulator for another area. This will help to ensure that simple licensing issues are not subsidizing the costs of more complicated ones and help remove barriers to entry.

- ii. What types of activities or projects have been most successful in building capacities of developing countries towards increasing telecommunications/ICT development and inclusion?*

Hughes and its subsidiaries provide broadband service globally, particularly in some of the most remote and unserved areas.⁶ As such, Hughes has first-hand knowledge of the challenges around adoption and deployment of telecommunications/ICT in parts of the world that need it most. As discussed above, one option that has been particularly useful in overcoming adoption issues has been Community Wi-Fi.⁷ To be successful, this model relies on educating people within the community on the use of broadband. In addition, since Community Wi-Fi service is provided by local community members, such as retailers, they have an important economic stake in educating potential users. Using this model, Hughes has seen wide-spread Community Wi-Fi adoption. For example, in Russia, Community Wi-Fi hotspots reach more than 300,000 people in the “Far East, Siberia, Central, Ural and Caspian/Volga regions, where Internet access was previously unavailable or unaffordable.”⁸ In addition, in parts of Latin America, Hughes has partnered with Facebook to create Hughes Express Wi-Fi in order to bring Community Wi-Fi options to especially remote communities who would otherwise be unable to afford broadband services.⁹

- iii. How best can the U.S. government share its experiences and best practices on telecommunications/ICT deployment overcoming the digital divide, and other telecommunications/ICT developmental topics? In 2021? Longer term?*

⁵ [The Impact of Microfinance on Women and Economic Development: A Client Study - Women's World Banking \(womensworldbanking.org\)](https://www.womensworldbanking.org)

⁶ “About Hughes,” webpage, available at: <https://www.hughes.com/about-hughes>

⁷ Community Wi-Fi: A New Approach to Closing the Digital Divide, White Paper, Available at: [Community-WiFi-H60313-032918.pdf \(hughes.com\)](https://www.hughes.com/Community-WiFi-H60313-032918.pdf)

⁸ “Satellite-enabled Community Wi-Fi Solutions” webpage, Available at: [Satellite-enabled Community Wi-Fi Solutions | HUGHES](https://www.hughes.com/Satellite-enabled-Community-Wi-Fi-Solutions)

⁹ Hughes Express Wi-Fi, webpage, Available at: [Hughes Express Wi-Fi from Facebook | Hughes](https://www.hughes.com/Hughes-Express-Wi-Fi-from-Facebook)

The U.S. government should share its experiences and best practices on ICT development by establishing a publicly available online repository to efficiently educate regulators worldwide. This repository should be hosted by the FCC and be available for regulators to link to their own regulator's public repositories. This online repository should contain not only best practices but also web-based trainings and seminars on how to implement these best practices. For instance, a recorded seminar that discusses the pros and cons and the benefits/outcomes of a given project or policy implemented by a government would go a long way in providing education to regulators worldwide about what works and what does not. In addition, the repository should invite the private sector and other stakeholders to submit best practices from time to time and to participate in recorded seminars or roundtables. Doing so would provide a private sector perspective that can be invaluable in crafting policy. Given the U.S. government's role as a lead in telecommunications/ITC deployment, easy and open access for the public and regulators worldwide would greatly help in overcoming the digital divide for years to come.

b. For the ITU and WTDC-21:

- i. How should we best engage U.S. stakeholders and ascertain their input before, during, and after the WTDC-21?*

Interactions within the U.S. WTD delegation and the opportunity for the industry to comment are two of the best ways to ascertain stakeholder input for WTDC-21. In addition, the U.S. government should hold townhalls for industry and civil society stakeholders to comment on or discuss possible actions or contributions prior to and after WTDC-21 to determine how effective the delegation was during WTDC-21 and how best to approach them in the future.

- ii. How can the U.S. government increase awareness or participation in WTDC-21 in order to help ensure concrete outcomes?*

The U.S. government should leverage universities, civil society, and trade associations to increase awareness and participation. By leveraging these types of organizations, the U.S. Government will consider a wide range of ideas and proposals from entities that may be unaware of how to participate in delegations. In turn, this would lead to more concrete and actionable outcomes.

3. Other

- a. Are there other telecommunications/ICT development matters that stakeholders want to raise with the U.S. government?*

To be effective and reach the communities that are the most vulnerable and in need of telecommunications/ICT developments, the U.S. Government must ensure that any policy or initiative that is advanced globally is technology neutral and accounts for differences in economics and geography. To this end, the U.S. domestic policy must align with the policy goal of technology neutrality or the U.S. commitment to this goal will be called into question. While terrestrial wireline and wireless services may make sense economically in cities or high-density areas, the rural and hard-to-reach areas where buildout is either geographically impossible or economically infeasible, other solutions, such as satellite, may be a better option. Satellite is able to be deployed in a matter of days and does not require costly buildout like traditional terrestrial services, such as fiber. For instance, during the ongoing COVID-19 pandemic, Hughes was able to deploy service quickly to Tatum, OK—a town of 150 people whose closest library is more than 30 miles away—to ensure that students in the town who were forced into online schooling as the pandemic started would have broadband access and not fall behind.¹⁰ Therefore, any policy or initiative should be technology neutral. Furthermore, the U.S. Government should advance the reduction of regulatory burdens worldwide, such as blanket VSAT licensing and cost-based fees, to enable more efficient and cost-effective broadband deployments.

¹⁰ "The Satellite Industry During the COVID-19 Pandemic," webpage, available at: [The Satellite Industry During The COVID-19 Pandemic \(sia.org\)](https://www.sia.org/industry/COVID-19)

We appreciate the opportunity to comment in this important proceeding. Please direct any questions or comments to the undersigned.

Respectfully Submitted,

/s/ Jennifer A. Manner

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