



January 03, 2020

VIA ELECTRONIC PORTAL

Council Working Group on Internet
International Telecommunications Union
Place des Nations, CH-1211
Geneva 20, Switzerland
<http://www.itu.int/en/council/cwg-Internet>

Re: International Internet-Related Public Policy Issues on Harnessing New and Emerging Telecommunications/ICTs for Sustainable Development, CL-19/46

Dear Sir/Madam:

EchoStar Operating, LLC (ESOC) and Hughes Network Systems, LLC (Hughes) (collectively “EchoStar”) hereby submit these comments in response to the International Telecommunications Union’s (ITU) Council Working Group (CWG) Open Consultation on International Internet-related public policy issues on harnessing new and emerging telecommunications/ICTs for sustainable development.¹

EchoStar is a leader in the commercial satellite industry. Through its subsidiaries, EchoStar Satellite Services, ESOC provides fixed satellite services (FSS) throughout the Americas and Europe. Additionally, with EchoStar’s recent purchase of Helios Wire, EchoStar Global Australia Pty is developing and will soon provide narrowband mobile satellites service (MSS) using the S-band worldwide. EchoStar Mobile is an S-band MSS provider with a complimentary ground component, offering innovative MSS services throughout Europe. Hughes is a local communications systems integrator and a satellite ground infrastructure manufacturer, providing advanced broadband connectivity throughout the Americas via its subsidiaries. Accordingly, EchoStar has significant experience in providing global telecommunications services throughout the world.

Satellite technologies play an integral role for sustainable development and growth. Satellites connect people in some of the most remote areas so they may benefit from all that broadband has to offer, eliminating their isolation from the rest of the world. For instance, Hughes provides community satellite broadband Wi-Fi systems with over 30,000 hotspots, connecting rural areas and their inhabitants to broadband in a cost-effective manner outside the traditional monthly subscription model that provides low-cost broadband to underserved or unserved areas.² By providing community Wi-Fi support, small businesses are able to connect to broadband, provide a different level of services, and assist in the development of new businesses. Furthermore, community Wi-Fi programs allow for educational opportunities that were previously unavailable due to lack of connectivity. Satellite broadband connections are also capable of providing connections for emergency communications, agriculture, telehealth, and tele-education in areas that terrestrial providers are unable to reach.

As technology continues to advance, mobile connectivity and the use of the S-band satellite services will become increasingly necessary to ensure sustainable development around the world. S-band MSS satellites are a promising area of growth for global, sustainable development for the provision of IoT, M2M, and other important services.

¹ <https://www.itu.int/md/S19-SG-CIR-0046/en>

² <https://www.hughes.com/solutions/global-operator-solutions/satellite-enabled-community-wifi-solutions>

In practical application, providing more of these services could mean that a farmer in a rural community gets the opportunity use IoT to rely on precision agriculture to monitor crops, resulting in better agricultural techniques, sustainable farming, and business growth. Utilities can also benefit by using these services to optimize energy efficiency by managing the smart grid.

Our answers to the questions in this consultation provide additional information on the critical role that satellite plays in sustainable development.

How will new and emerging telecommunications/ICTs impact both the Internet and sustainable development, including the digital economy?

Satellite communications services can have a profound impact on the Internet and sustainable development. Satellite broadband and mobile connectivity provide connections to people and places that are underserved and unserved by terrestrial networks. Specifically, the services that satellite provides can play a key part in achieving sustainable development goals (SDGs), such as those outlined by the United Nations.³ For instance, EchoStar provides satellite broadband services at speeds of 25/3 Mbps across Latin America in rural and remote areas, which have traditionally been underserved or unserved. This enables, for instance, the use of broadband for digital and physical currency transfers, which, in turn, allows for e-commerce capabilities, such as home businesses and tele-work in the most rural and underserved parts of a given country. These technologies and services help achieve sustainability goals, such as increasing work and economic growth. They also help reduce inequalities between those who live in metropolitan areas and those who live in rural areas, reducing the need for rural migration and helping to achieve several UN SDGs, including the creation and development of sustainable communities.⁴

Additionally, these services increase the quality of healthcare available in the remote, underserved, or unserved regions. Using broadband-enabled technologies, doctors and their patients can participate in remote checkups or visits, increasing the quality of healthcare.

What are the opportunities and challenges for the adoption and growth of the new and emerging telecommunications/ICTs and the Internet?

There are numerous opportunities and challenges for the adoption of the Internet and the growth of technologies that enable the use of the Internet and ICTs. In general, adoption is a global problem for the Internet and ICTs. The reasons for this vary, including economics, access, and how much users value access to ICTs and the Internet. In some cases, it can be a combination of all three. To successfully increase adoption, the underlying problems that cause these issues must be addressed through global, regional, and national initiatives. Hughes has been quite successful in the implementation of community Wi-Fi for its broadband services. In this case, Hughes educates new users and trains different generations to use the provided technology. Younger generations often lead the adoption of these services and train their families to use them. Educating the younger generation spearheads future adoption because of their desire to be connected.

Access to ICTs and Internet will grow if adoption is locally sustainable from a financial perspective. It is important for growth to occur so that there is a solid business case to build on. To develop such a business case, it is critical to be responsive to community needs and build on successful efforts. The community Wi-Fi program is a great example. As access is provided and the value of the Internet and ICTs from a business, education, and health perspective are recognized, their use should increase. Ideally, this will support local growth, including supporting a business case to provide greater access to the Internet and ICTs.

³ See UN Sustainable Development Goals. Available at: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

⁴ *Id.*

How can governments and the other stakeholders harness the benefits of new and emerging telecommunications/ICTs?

There are numerous ways that governments and other stakeholders can take advantage of satellite technology, from public safety and disaster response to telehealth and tele-education. For example, during the recent hurricane season, satellite solutions provided by Hughes and other operators have been instrumental in the recovery of the affected regions.

Additional benefits come from innovative programs such as community Wi-Fi. Currently, Hughes partners with stakeholders and local governments in Mexico to provide subsidized community Wi-Fi to underserved and unserved areas of the country.⁵ Specifically, Hughes provides 25/3 Mbps service to approximately 22,000 sites, which reaches approximately 22 million people and includes 16,000 schools. Through this community Wi-Fi program, people in rural and remote villages in Mexico have gained the ability to video chat with loved ones across the world, engage in e-government, utilize digital payments and online financial services, and receive training and education through online services. In some cases, these Wi-Fi programs are subsidized by governments to reach unserved and underserved users. As such, stakeholders should strive to increase funding and education for these resources to enable larger-scale deployment of community Wi-Fi and similar programs.

Additionally, governments may also benefit from the public safety and disaster response aspects of satellite connectivity. For example, following natural disasters, such as hurricanes, terrestrial options are often destroyed or disabled before they can be of use, and in areas where there is a significant lack of terrestrial presence, there is an even greater concern about establishing communications immediately after a disaster. Satellite networks can respond to natural disasters quickly without being impacted on the same scale as terrestrial networks. For instance, following the hurricanes that devastated Puerto Rico and the Bahamas, Hughes was able to provide services for reestablishing and maintaining communications.⁶ Furthermore, Hughes developed a mobile, deployable device that provides wireless coverage for military or first responders to act as an airborne cell tower, providing connectivity beyond line of sight.⁷ Because of the versatility of satellite communications, governments and other stakeholders can benefit from a plethora of potential uses, particularly through mobile connectivity.

The examples above show that satellites are an important technology for governments to utilize to meet national goals, whether they are related to the economy, national security, or disaster recovery.

What are the best practices for promoting human skills, institutional capacity, innovation and investment for new and emerging telecommunications/ICTs?

Promoting skills, institutional capacity, innovation, and investment is necessary for all new and emerging telecommunications/ICTs looking to achieve sustainable development. More specifically, there is a need to educate users on technologies and how best to utilize them. Hughes has been providing training and education on Wi-Fi services in rural Mexican communities. Through this training, new broadband users learn how best to use the technology to meet their needs, whether it be for social, business, health, or other purposes.

However, for there to be investment in new and emerging telecommunications/ICTs, there needs to be certainty of spectrum and access to spectrum. Because the cost of deployment for telecommunications services is capital intensive, wireless providers (including satellite operators) require certainty and protected access to the sufficient spectrum to support their services. Governments can attract new

⁵<https://www.echostar.com/en/Press/Newsandmedia/Hughes%20in%20Partnership%20with%20Facebook%20Launches%20HughesNet%20Wi-Fi%20Hotspots%20in%20Brazil%20and%20Mexico.aspx> ; <https://www.hughes.com/solutions/global-operator-solutions/satellite-enabled-community-wifi-solutions>

⁶ See <https://www.hughes.com/resources/press-releases/hughes-releases-white-paper-outlining-communications-network-preparedness> ; 60-day STA Authorization to extend service to the Bahamas for emergency operations, File No. SAT-STA-20190925-00101 (Granted Nov. 14, 2019).

⁷ <https://www.prnewswire.com/news-releases/hughes-partners-with-startup-to-create-new-solutions-for-extending-lte-coverage-using-helicopters-uavs-300903767.html>

providers of services if they create a flexible and certain regulatory structure that ensures adequate access to spectrum on a long-term basis. Governments seeking to increase access to the Internet and ICTs should ensure such regimes are available to all types of providers. The ITU can assist in this effort by developing appropriate best practices for telecommunications/ICTs.

Conclusion

Satellite broadband and mobile connectivity are necessary parts of the equation when working to promote growth and sustainable development, and it is imperative that regulatory regimes are adopted to allow the use of these technologies, thereby expanding their proven benefits.

Respectfully submitted,

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