January 11, 2017

**BY ELECTRONIC FILING**

Hon. Mignon Clyburn
Commissioner
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

**Re: Comments on Commissioner Clyburn's #Solutions2020 Call to Action Plan Draft**

Dear Commissioner Clyburn:

Hughes Network Systems, LLC (Hughes) commends the Commissioner's #Solutions2020 initiative on taking a necessary step towards ensuring that affordable access to communications can be made available for everyone. This Call to Action highlights many important principles in the quest to achieving affordable connectivity for all: designing and passing effective regulation for broadband deployment, ensuring the availability of spectrum for technologies most capable of providing services to specific regions, and providing incentives for service providers to deploy services in rural and remote regions.

Hughes is the largest provider of satellite broadband services in the United States, providing broadband services to approximately 1 million people throughout North America, including those in rural, remote and tribal areas. With the recent addition of EchoStar XIX, the world's highest capacity satellite, to its broadband satellite fleet in December 2016, Hughes is now able to offer more than double the broadband capacity of its former two-satellite configuration to consumers across the continental United States, as well as portions of Alaska. Hughes's satellite network and its associated ground network are an integral part of the nation's broadband infrastructure.

The promise of 5G technology and the Internet of Things offers a glimpse into the realm of what is possible if truly integrated connectivity can be achieved. However, the primary objective of any Call to Action should focus on attaining connectivity for all, especially those who are currently unserved or underserved by the current system. Only through regulatory frameworks that stress technology neutral approaches broadband to connectivity will we be able to achieve this end.

To date, no single technology has proven to be so ubiquitously and economically deployable as to be able to meet the unique needs of every household and business in the United States. It has only been through the combination of technology services, as determined by the complex interplay of market forces, that we have been able to achieve the level of connectedness at which we currently communicate. Fiber optic technologies may provide one of the most efficient, effective and reliable means of supplying a dense urban population with broadband access, however those same factors weigh differently when evaluating sparse, rural communities where the size of the potential market can be vastly exceeded by the cost of laying cables. Satellite networks have been instrumental in providing connectivity, emergency response, and e-services to rural and remote regions of the country. As a cost-efficient and easily deployable infrastructure, they add valuable complementary

functions to terrestrial networks, including backhaul and M2M. Satellite networks, when factored in to overall telecommunications infrastructure, provide invaluable resiliency in cases of emergency, even in regions they do not normally offer consumer services, such as in New York City following Superstorm Sandy.[1] Regulations that encourage the consideration of infrastructure costs and network reliability in given regions will likely decrease the cost of the services and increase the rate of adoption.

Furthermore, technology neutral frameworks allow for regulatory certainty. Predicting which technology will be the primary driver of the next generation of telecommunications is a near impossibility. Structuring a framework around one technology creates the uncertainty that if that technology does not carry the day, the entire system that had been put in place will have to be replaced and any investments made in costly infrastructure will be lost. History has demonstrated that it is more likely that several technologies, providing complementary services and coverage, will be needed in order to sustain a new generation of telecommunication services, such as 5G. Any framework that is adopted should encourage participation by all available technologies, not just terrestrial wireless.

Ensuring national connectivity also requires that scarce resources, such as spectrum, are made available on a fair and non-discriminatory basis, through a competitive telecommunications marketplace. While unlicensed spectrum bands have assuredly contributed to the development of technologies that figure prominently in our daily lives, such as Wi-Fi, licensed spectrum bands are critical for the long-term planning and investment that goes in to network build-outs. For example, a geostationary satellite takes several years to build. Frequencies for the satellite are determined prior to construction and cannot be altered once built. Given the time and expense in constructing a satellite, the regulatory certainty provided by licensed spectrum is a necessity to justify undertaking the construction and deployment of this communications infrastructure. EchoStar XIX benefited from this regulatory certainty, and a result, will now be able to provide rural, remote and tribal areas that were previous underserved or unserved with broadband services. As the satellite industry, and Hughes in particular, develops their next generation systems, continued regulatory certainty is critical.

The #Solutions2020 Call to Action Plan provides an excellent starting point for discussion on effective regulation for broadband deployment, the availability of spectrum, and incentivizing service providers to deploy services in rural and remote regions. However, the Call to Action Plan should embrace the diversity of solutions available to connect America and ensure that any final frameworks incorporate the principles of technology neutrality, as well as fair and non-discriminatory access to spectrum.

Respectfully submitted,

*/s/ Jennifer A. Manner*

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[1] Press Release "Hughes Satellite Technology Provides Critical Communications in the Aftermath of Superstorm Sandy" (Nov. 13, 2013). Available at: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwiF4r74mqvRAhVL64MKHbKjBp0QFggaMAA&url=http%3A%2F%2Fwww.hughes.com%2Fresources%2Fsuperstorm-sandy-1%2Fdownload%3Flocale%3Den&usg=AFQjCNHzcJSzIpkNnimBroCYL5x13FBugw

*/s/ Jodi Goldberg*

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