

June 6, 2016

Chairman Tom Wheeler  
Commissioner Mignon Clyburn  
Commissioner Jessica Rosenworcel  
Commissioner Ajit Pai  
Commissioner Michael O’Rielly  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

*Re: Globalstar TLPS Proposal (IB Docket No. 13-213, RM-11685)*

Dear Chairman Wheeler and Commissioners:

Our three companies—Microsoft, Nintendo of America, and Sony Interactive Entertainment America—sell the video game consoles that are in half of all U.S. homes. Wireless connectivity is an indispensable feature of game consoles.

We write today regarding the above-noted matter because it has the potential to negatively affect millions of Americans across the country. Simply put, Globalstar’s request that the FCC permit it to use some of its licensed satellite spectrum, combined with priority use of some unlicensed spectrum, for a private terrestrial low power service (“TLPS”) threatens the public’s use of that unlicensed spectrum. More specifically, our analysis of the record shows that, if granted, the Globalstar request may imperil Wi-Fi and Bluetooth connections of all kinds, from video games to hearing aids to basic Internet connections.<sup>1</sup>

We and millions of our customers depend upon Wi-Fi, Bluetooth, and similar unlicensed technology protocols both to connect our consoles to the Internet and to connect our wireless controllers to the game consoles. That connectivity enables experiences such as multiplayer gaming, a bedrock feature of many games.<sup>2</sup> Connected gaming has helped spur broadband adoption by an entire generation of Americans. Today’s video games require split-second responses. Any interference that introduces latency or jitter—even if measured in just milliseconds—can ruin the game experience. We devote substantial engineering expertise to ensure that our customers have a seamless experience, using the unlicensed bands that the FCC has established.

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<sup>1</sup> This is particularly disconcerting given the growing reliance upon Wi-Fi for carrying Internet traffic. By 2019, Wi-Fi/fixed wireless technologies are expected to carry 66 percent of all Internet traffic and many devices and cloud-based services depend heavily on the 2.4 GHz band.

<sup>2</sup> Last year, consumers in the United States spent over \$23 billion on game content, hardware, and accessories.

We understand that a draft order is pending before the FCC that, as part of a year-long experiment, would allow Globalstar to deploy increasing numbers of TLPS transmitters and ultimately expand across the country. Further, it is unclear whether the proposal would provide those impacted by this technology meaningful opportunity to assess the potential threats to existing consumer experiences. The draft order would permit rollout, even though the FCC has no test data on the impact to Wi-Fi and Bluetooth consumers by TLPS deployments using the power levels and other operating parameters that Globalstar has requested.

Given the potential harm to unlicensed uses, we ask that you not proceed with the order. If you do, we ask that you conduct transparent and thorough testing and that affected stakeholders are given a reasonable opportunity to participate in a meaningful way. This will enable the FCC to consider results of these real-world tests before deciding to grant permanent authority.

Sincerely,



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**Brad Smith**  
President & Chief Legal Officer  
Microsoft Corporation



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**Reggie Fils-Aime**  
President & Chief Operating Officer  
Nintendo of America Inc.



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**Shawn Layden**  
President  
Sony Interactive Entertainment America, LLC