## BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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In the Matter of the Application of
Starlink Services, LLC for Designation
as an Eligible Telecommunications Carrier
for Purposes of Receiving Rural Digital
Opportunity Fund Support

Docket No. UT-210059

## **DECLARATION OF MATT JOHNSON**

I, Matt Johnson, declare as follows:

 I am employed by Space Exploration Technologies Corp. ("<u>SpaceX</u>") as a Senior Business Operations Analyst. My responsibilities include analyzing SpaceX's satellite network design and demand on a global basis.

2. I am personally familiar with the design and performance of SpaceX's satellite network, and the services to be provided by Starlink in the state of Washington.

3. My declaration is intended to provide additional information to the Washington Utilities and Transportation Commission ("<u>Commission</u>") about latency, growth potential, and the impact of environmental factors on Starlink's services in Washington state.

4. *Latency*. Starlink currently offers satellite-based broadband services on a beta test basis to many subscribers, including those in Washington state. The latency in transmissions today over Starlink's services is well within the 100 ms requirement established by the Federal Communications Commission for low latency broadband services under the Rural Development Opportunity Fund. Starlink expects the latency will continue to be well within the requirement after the commercial launch of Starlink's broadband services.

5. *Growth Potential of Starlink's Services*. As Starlink's customer base grows and data usage on its network increases over time, the increased traffic on Starlink's network will be handled by the additional satellites that Starlink is scheduled to launch, and the additional

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gateways that are scheduled to be constructed. In addition, we expect significant improvements in satellite technology over time, similar to the improvements in the cellular network from 1G to 2G to 3G to 4G and now to 5G, which will create additional satellite broadband capacity for all customers.

6. Environmental Conditions. Washington state's environmental conditions, like clouds, rain, snow and tall trees, do not have an adverse impact on Starlink's service quality. For example, clouds, rain and snow do not adversely impact Starlink's network performance because the radio frequency bands and power levels used by Starlink's satellites and ground equipment continue to perform despite those environmental conditions, similar to the satellite services used by local television broadcast networks and cable TV earth station networks. In addition, tall trees do not mean that customers are unable to use Starlink's services. Customers need to have a clear view of the sky in order to use Starlink's satellite services. Starlink will work with its customers on a property-by-property basis to identify the location on their property that provides the best view of the sky available at their service location. In addition, more satellites will provide more coverage options for these customers in the future. If the available sky view is too small to support a connection to Starlink's satellite network, the lack of sky view is property-specific and is no indication that the entire census block is unserved.

I declare under penalty of perjury under the laws of the state of Washington that the facts I have provided above are true and correct.

DocuSigned by Matthew Johnson Bv: Matt Johnso

May 19, 2021