Hello. My name is Matthew Blair and I am an engineer, husband, and father of two children. I am writing today to provide comment on FCC Proceeding 17-199, which discussed the role of mobile, cellular high-speed internet access as part of the FCC’s evaluation of “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”

I live in a modest-sized town 30 minutes from Huntsville, AL. My Spectrum wired internet is a lifeline for my household, even though it often registers less than 10Mbps down/5Mbps up for an advertised “up to 60Mbps” connection. We use our internet for a wide variety of things - streaming media services and basic internet usage, yes, but also:

* Content creation and uploads to online services like YouTube. When preparing content, it is not unusual to upload several gigabytes of high-definition media in one evening.
* Software development, including downloading and uploading code and executable software to GitHub and other online software repositories. Third party software can easily run from hundreds of megabytes to tens of gigabytes (ex. Unreal Engine or the Qt development library)
* Online backups/data recovery for things like high-resolution photos, family videos, and the aforementioned software and video content. I have 3 terabytes of personal data – projections for backup to cloud storage is *3 months* over my wired broadband internet because my upload rate roughly averages 3Mbps. Losing that content would literally mean losing years of effort for me and my family – our online backup is an effective and affordable way to mitigate that risk.
* Playing video games with friends and family online, including games requiring low-latency connections like first person shooters. Besides latency requirements for some online games, it is not uncommon for a new game to run in the tens of gigabytes of content, which is downloaded through an online platform like Steam. As a point of reference, a cooperative online game I played recently required downloading 45GB of content.

My family are heavy technology users. We do not live in a major metro area, and even though we are a scant 25-minute drive from a Google Fiber city, we still have relatively slow broadband internet through Spectrum, regardless of their advertised speeds. With one real high-speed internet carrier in my town, we have no real recourse if our speeds are noticeably less than advertised, and no competitive incentive for our carrier to improve the quality of our service.

Even so, our current wired speeds and bandwidth are far and away better than mobile cellular internet. My wife and I have a combined data limit of under 10GB per month through our pay-as-you-go cellular carrier. Even if we sprang for a pricey unlimited plan with a traditional carrier, speeds for plans in our area are often throttled after only 10GB of data per month, and dropped to a snail's pace after 24GB per month.

**What would it mean for my family if mobile was our only high-speed internet?**

* Our Internet service would cost more for lower performance. We would have to pay for an expensive unlimited plan, and make provisions for tethering or using a mobile hotspot. Cellular internet is higher latency than our wired access (often 10x higher latency!). Our cellular carriers also impose bandwidth caps at under 30GB total data, throttling speed to under 1Mbit or deprioritizing your traffic after that. For comparison, over the past two weeks we have used several hundred GB of data between streaming video, game/software downloads, and backups.
* Less streaming content in our household. No more relaxing in the evening with Netflix, or binge-watching a newly discovered show on a lazy weekend, it would cut too much into our mobile tethering limit, or get dropped to 240p pixelated content by carrier throttling.
* Slow-downs or a stop to cloud-based backups, adding additional risk of losing our large amount of personal data, requiring much more time and cost to implement off-site backups ourselves. Without reliable high-speed, high bandwidth internet to synchronize backups, we would have to manually copy data between drives and hand-carry backups to off-site areas for data security.
* Trade-offs between software development, uploading online content, and collaborating with other developers online. Overall, less technological creation and innovation in our household, and less opportunities to share those passions with my children.
* Little-to-no computer gaming with friends or family online, as downloading a single game would use a significant portion of our bandwidth, if not all. Latency would significantly degrade the play experience for some games.

My family has access to wired high-speed internet, and we can take advantage of that access to enrich our lives and contribute to the global community of innovation and creation that the internet has made possible. Participating in the information revolution of the modern internet has changed my life, and I get to watch day by day as my children grow up in a world made possible by the advantages of my family’s quality, high-speed access to the world's information.

Every family in America should have the opportunity to interact with the Internet in the way my family does. Information is power, and high-speed internet access places that power directly in the hands of every one of us. Please pursue policies that enable greater access and freedom of information for all American citizens. Mobile cellular data is a tremendous technology, but it does not substitute for the affordable, reliable, high bandwidth access that wired internet technologies provide.