

Statement of

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Committee on Energy and Commerce  
Subcommittee on Communications and Technology

*“Broadband: Deploying America's 21st Century Infrastructure”*

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Good morning. My name is Bryan Darr, and I am the President and Chief Executive Officer of Mosaik Solutions, previously known as American Roamer. I want to thank Chairman Blackburn, Ranking Member Doyle, and the fellow members of the Subcommittee on Communications and Technology for this opportunity to speak with you.

Broadband deployment is a bipartisan national priority. But expanding and accelerating broadband deployment requires reliable information and data-driven decision making. Without trusted data about coverage gaps, underserved populations, network speeds, and other indicators, we will not stimulate private-sector investment, advance toward the goal of universal service, expand broadband into more rural areas, or maintain the competitive broadband market we see today.

Since I founded Mosaik in 1988, my company's sole mission has been to produce reliable data about wireless network coverage and performance. Almost thirty years later, we're still a small business—we have less than 50 employees and we're still based in Memphis, Tennessee, but we offer some of the most accurate insight into network coverage and performance available in the market. We like to describe Mosaik as a business intelligence company with deep telecommunications domain expertise. More simply put, we tell our clients where they can reasonably expect to have access to a variety of mobile networks, and how reliable wireless networks are at any given point in the United States and much of the rest of the world.

Having founded Mosaik during the infancy of the wireless industry, I continue to be impressed and often amazed by the advancements in network service quality and seemingly never-ending innovative uses for broadband services by consumers, enterprises, and entrepreneurs alike. I'm also proud of our longstanding and constructive relationship with the Federal Communications Commission—we have supported part of the FCC's recurring informational needs for many years. The FCC uses our CoverageRight datasets in its annual competition reports and other policy and regulatory decisions. Improving wireless customer experiences was the mission when I started

Mosaik, and through near constant innovation and investment, Mosaik continues with the same mission today. During our almost three decades serving clients, we have developed competencies that span geospatial analytics, graphic design and data visualization, software engineering, cloud-based big-data management, and mobile application development.

Mosaik and its competitors stake our reputations on supporting the products and services we provide to our clients. Today, consumer devices collect millions of daily measurements providing granular information about the quality of mobile networks. This data is absolutely required to understand network quality in over eleven-million census blocks. It is equally important in rural, high-cost areas that remain underserved. Mosaik is currently leading a research and development effort with one of the largest fleets in the United States to radically expand available information about mobile network quality. I am confident other private companies are making similar investments.

Despite healthy competition and increasingly sophisticated data analysis among private sector network-analysis companies, the FCC has sought to displace this industry by mandating use of its own data analytic tools. In 2013, the FCC elected to expand its Form 477 with the *Modernizing the FCC Form 477 Data Program Order* to mandate that carriers provide information directly to the Commission. In some cases, the FCC uses its in-house data to the exclusion of all other sources. The Wireless Telecommunications Bureau recently stated that its Form 477 coverage data is “the best available data we have today.”<sup>1</sup>

It’s not.

The Form 477 mobile broadband coverage data is flawed. First, there are no defined specifications for what radio-frequency conditions or methodologies are required. Second, the

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<sup>1</sup> Jon Wilkins, *Mobility Fund II: Improving the Data We Use to Identify & Close Mobile Coverage Gaps*, FCC Blog (Sept. 30, 2016), <https://www.fcc.gov/news-events/blog/2016/09/30/mobility-fund-ii-improving-data-we-use-identify-close-mobile-coverage>.

FCC's data is out of date almost as soon as it is filed. Form 477 data is too infrequently updated and has too large of a time gap between reporting date and release date. For example, mobile network coverage data as of December 2015 was released in September 2016—a lifetime in this fast-moving industry. During this nine-month period alone, a national operator radically expanded the population served with its LTE network while another more established operator added thousands of square miles of rural LTE coverage. That's precisely why Mosaik's LTE network coverage datasets are updated monthly.

Relying exclusively on antiquated or inferior government-mandated data threatens to frustrate mobile broadband deployment and harm American consumers. And the FCC's decision to exclude other types of data threatens to crowd out private investment from U.S. companies—including Mosaik—that compete to provide similar and, we believe, far superior products about network coverage and performance. These private companies are responsible for much of the innovation that has provided the gains in predicting and understanding network availability.

We can do better. To assist policymakers in how they make broadband funding decisions, we should overlay traditional datasets with wireless infrastructure information, including tower assets and fiber optic availability, as well as on-the-ground network coverage and performance testing. We should also evaluate novel key performance indicators or derivatives, such as verified coverage, time spent per network, and human and agricultural density data, among many others.

And our measurement capabilities must keep pace with changing developments. Operators are testing innovative strategies to improve coverage in urban areas. As more households with landline telephone service continue to decline, improving indoor network availability and performance will prove a priority for municipalities and public safety organizations. New technologies present promising solutions to these issues. The amount of data needed by

policymakers to make informed decisions will continue to increase—as will a better means by which to consume, analyze, and understand that data.

We commend the FCC for recognizing the importance of data-driven decision-making. When measuring the availability of broadband to consumers, the FCC should take into account *all* sources—especially as providers embrace newer technologies to improve network quality. That holistic approach is consistent with longstanding executive-branch policy, which directs agencies to rely on the private sector whenever feasible. Here, policymakers can greatly augment the quality and depth of their data—and at a cost equivalent to a handful of cell sites. When government agencies embrace the capabilities of private companies instead of competing with them, taxpayers can spend less money and benefit from sound policymaking based on more accurate and timely data about network coverage and performance. Let’s make sure we use the best of what the private sector has to offer.

Thank you and I look forward to answering your questions.