

# Mobile broadband holds great promise, but is it enough? tiny.cc/MobileBroadband tiny.cc/MobileBroadbandSlides

Brandie Nonnecke, PhD Director, CITRIS Policy Lab

@BNonnecke | nonnecke@berkeley.edu | CITRISPolicyLab.org









## Questions

- Will 5G increase broadband availability in rural and developing regions or increase the gap in speed and price between urban and rural customers?
- Will people in developing regions have the skills to put these new technologies to use, and to develop content and applications relevant for their communities and cultures?









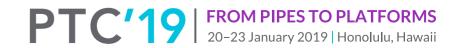




# Mobility Fund II (4G focus)

- \$4.53 Billion
- 10 years
- Speeds: Min 5 Mbps down, 1 Mbps up (was 10 Mbps/ 1 Mbps)





## Mobility Fund II (4G focus)

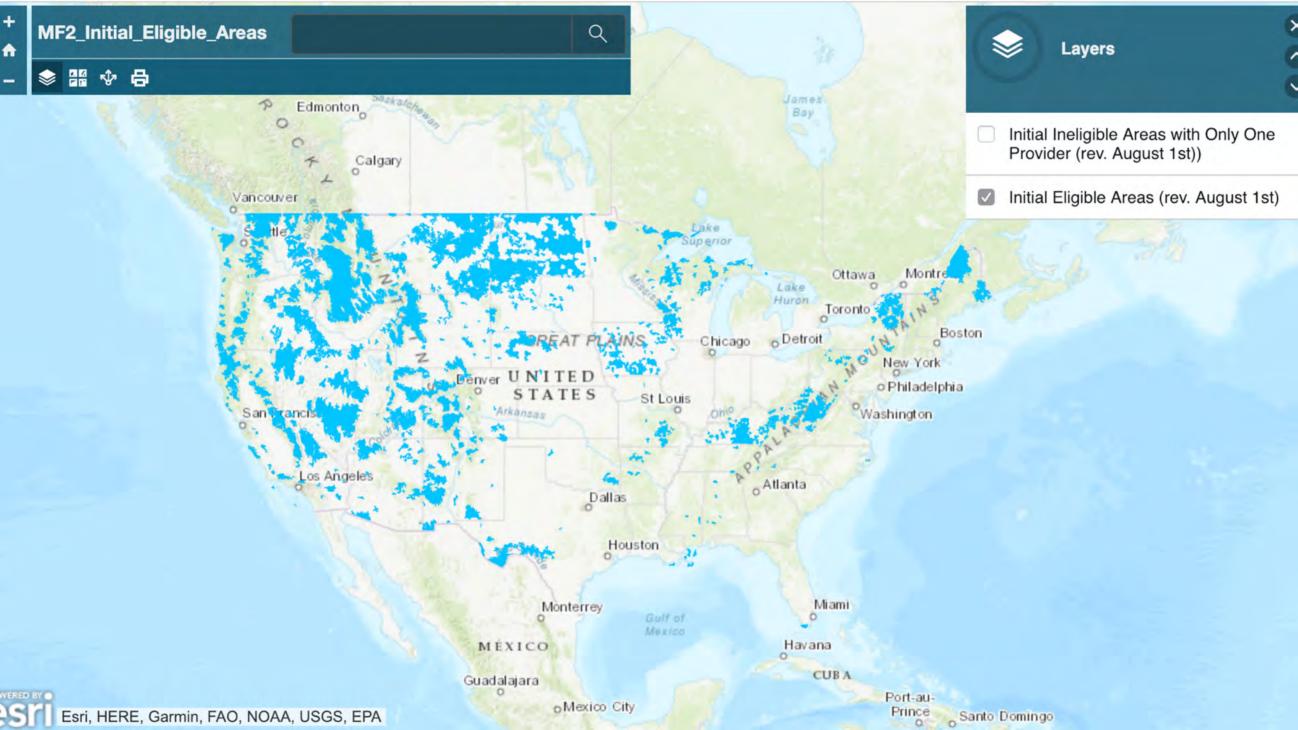
- **INITIAL ELIGIBILTY:** FCC to collect & standardize, up-to-date 4G LTE coverage data from mobile providers, combine with Universal Service Administrative Co. (USAC) subsidy information. Eligibility map.
- CHALLENGE PROCESS: Mobile providers, state and local government entities can contest the coverage data used to determine initial eligibility. Challengers can submit speed test measurements taken in areas initially deemed ineligible to demonstrate that existing coverage is below the 5 Mbps benchmark.
- **RESPONSE:** Mobile providers serving a challenge area have the opportunity to respond to a challenge by submitting their own speed test data and speed reduction reports through the USAC portal.
- FINAL ELIGIBILITY: When the challenge process is complete, the FCC will determine and publish the final list of areas eligible for the MF-II Auction.

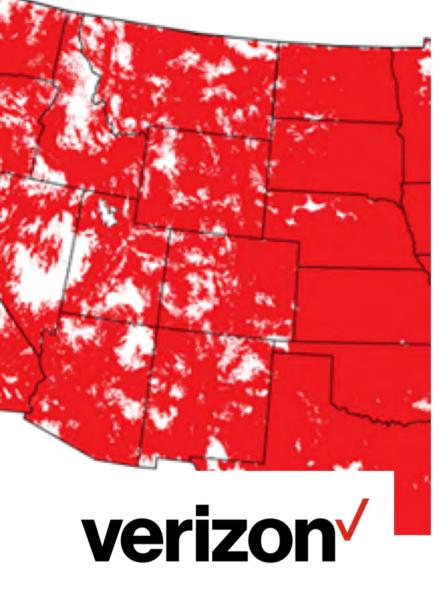
Source: https://www.usac.org/hc/MFII-challenge-process.aspx

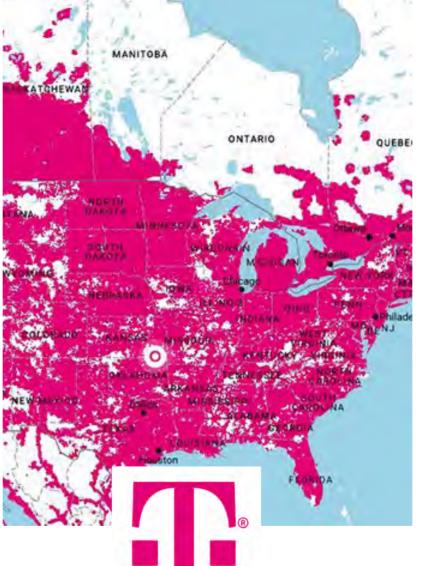
















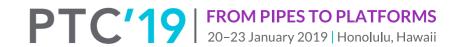


## Concerns & Outstanding Questions

- Is 5 Mbps adequate?
- Mapping adequate? (Crowdsourcing is a great option!)
- Will 4G mobile broadband provide bandwidth necessary for socioeconomic growth?







## Other Options?



#### **AirBand Initiative**

- Utilizes 600 MHz range of underused spectrum (TV white space)
- Public-private partnerships and creation of open access technologies capable of operating on the 600MHz band
- Connect 2 million rural Americans by July 4, 2022







## Other Options?



### Facebook-Airtel-BCS Partnership

• Investing in 800 KM of optical fiber in northwest region of Uganda







### Recommendations

- Improve transparency & accountability in methodologies
- Explore new models (e.g., PPPs) and technologies (open source)
  - Variety of private sector and public sector stakeholders
- Explore new spectrum opportunities (e.g., super WiFi at 600 MHz, 5G at 37-40 GHz & explore >95 GHz)
- Plan for 5G in rural areas and across urban settings
- Incentivize deployments in rural and semi-rural areas (socioeconomic stimulus)



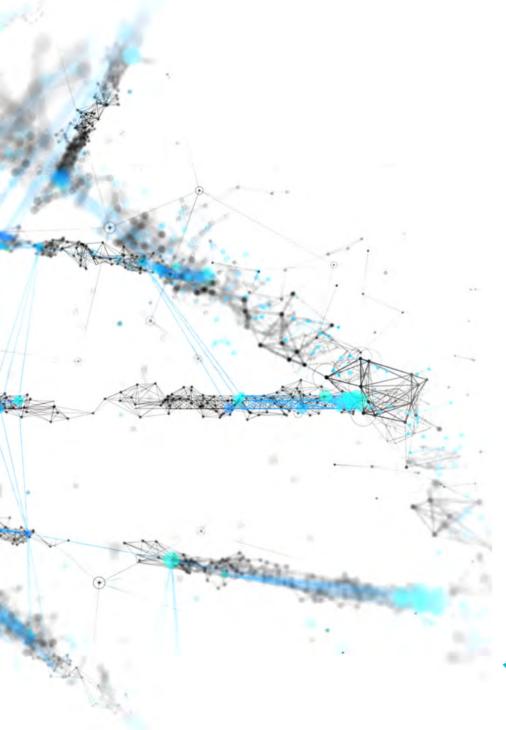




## References

- Micorosft: https://blogs.microsoft.com/uploads/prod/sites/5/2018/12/MSFT-Airband InteractivePDF Final 12.3.18.pdf
- MultiChannel: https://www.multichannel.com/news/sens-challenge-fcc-rural-broadband-map
- PEW: http://www.pewinternet.org/fact-sheet/internet-broadband/
- State Scoop: https://statescoop.com/broadband-mobility-fund-phase-challenges-fcc-ajit-pai/
- Telegeography: https://www.telegeography.com/products/commsupdate/articles/2018/10/08/facebook-and-airtel-uganda-team-up-to-improve-rural-connectivity/
- USAC, https://www.usac.org/hc/MFII-challenge-process.aspx





# Mobile broadband holds great promise, but is it enough? tiny.cc/MobileBroadband tiny.cc/MobileBroadbandSlides

Brandie Nonnecke, PhD Director, CITRIS Policy Lab

@BNonnecke | nonnecke@berkeley.edu | CITRISPolicyLab.org







