

AGC / HUD



Broadband Telecommunications Study
Prepared by: ECC Technologies

Today's Agenda



- **Introductions**
- **ECC Technologies**
- **Study Overview / Summary**
- **Recommendations**
- **Summation & Discussion**

About ECC Technologies

- ECC has participated in over \$1 billion dollars of project development since its creation in 1997
- Industry leader in telecommunications studies & the development of community based fiber initiatives
- Extensive experience in the design, development, construction and operation of fiber networks
- Pioneers in the development of Fiber based Open Access models
- Performed Broadband Studies throughout NY and the US

PROJECT GOALS

- To the extent possible identify and document Broadband infrastructure within the region
- This information will be used to
 - Develop a plan for the expansion of broadband to underserved areas of the region
 - Support economic development opportunities
 - Create a foundation and tools for future planning and development
 - Support the development of programs to enhance efficiencies across all verticals, including healthcare, education, government, etc.

Multilevel process was used

- Physical inventory
 - Engineers on the streets
- Face to face meetings
 - Government, healthcare, education, others
- Integration of data sources from others
 - FCC
 - Public Works
 - Geotel
 - Others

What did the assessment determine?



- Through the meetings we determined;
 - Broadband is widely available across the region
 - The enterprise entities in developed areas are generally satisfied with Broadband access
 - There are multiple service providers in the region
 - Broadband in the rural areas is spotty with several areas lacking coverage
 - Mobile wireless and cellular is found primarily in the developed areas and along well travelled traffic corridors

What did the inventory portion of the assessment find?

- The broadband providers in the region are:
 - Verizon
 - Frontier
 - Time Warner Cable
 - Windstream
 - Primelink
 - FirstLight
- Primelink, Firstlight, Verizon and Frontier own fiber in the region
- There are 25 cell towers in the region and 10 public safety towers

What did the inventory portion of the assessment find?



- The developed areas of the Region are well served and have relatively good broadband and infrastructure coverage.
- The western portions of the region as well as some areas of the east had large holes of no coverage.

What did the assessment determine?



- Education demand on broadband will continue to increase well beyond current capacities
- Students and teachers will rely heavily on broadband access at home. Those without will struggle to keep up
- The healthcare industry will benefit from access to higher capacity and lower cost broadband access. Access to remote areas will enable services to be migrated further into the community, reducing drive and commute time for residents and better services for the chronically ill.

In general

- The assessment found that although the central areas of the region are well served, the lack of consistent broadband access in the more rural areas is having a negative overall impact on the AGR region in general.
- Education, healthcare, and public safety will all benefit from better, more consistent access to broadband services.
- Home office growth, tourism, and real-estate will also see a significant benefit.

Expanded growth of cellular services and technology

- Technology upgrades to 4G mobile presents users with additional options for High Speed Broadband access
- Anticipated rollouts of small cell technologies will increase density and capacity within a community
 - These systems can be mounted on utility poles, sides of buildings, in church steeples and other areas where high towers may not be available
 - These systems will enhance poor cell coverage and are expected to increase broadband connectivity to underserved areas
 - Fiber infrastructure is the backhaul of choice for small cell installations

Next steps

- Work with the community to bring broadband to the rural areas
- Develop an RFQ to form partnerships with a wireless provider & fiber provider
- Use towers already constructed in the region to provide wireless broadband
- Bring residential broadband to the next level by developing Gigabit offerings



Summation

Questions & Answers



Building smarter schools, richer corporations, and integrated communities.