



EASTGATE REGIONAL BROADBAND FEASIBILITY STUDY

for Eastgate Regional Council of Governments

Prepared by Ice Miller Whiteboard and ms consultants, inc.

June 4, 2021



ms consultants, inc.
engineers, architects, planners

TABLE OF CONTENTS

PREPARED FOR:



PREPARED BY:

IceMiller Whiteboard



Technology & Trends Review	1
Policy Analysis	19
Service and Infrastructure Analysis	49
Site Analysis	67
Market Analysis	81
Needs Assessment and Outreach	103
Utility Formation	110
Programming and Finance Evaluation	120
Project Identification	166
Appendix	210

EXECUTIVE SUMMARY

The Eastgate Regional Council of Governments issued a Request for Proposals in September 2020, seeking the services of a consultant or firm to perform a Regional Broadband Feasibility Study focused on providing enhanced and reliable internet service to rural areas lacking appropriate coverage, as well as urban centers that require increased speed and access, for the three-county region encompassing Ashtabula, Mahoning, and Trumbull Counties, Ohio. Ice Miller Whiteboard and ms consultants were awarded the RFP and began work on the Study in November 2020.

“Broadband” is objectively defined by the Federal Communications Commission as speeds of 25 megabits per second for downloads (what a user pulls from the internet) and 3 Mbps for uploads (what a user pushes to the internet), but subjective experiences of reliability at this speed vary and demands for additional speeds continue to augment, especially with the onset of the pandemic. Affordability, both of available service and the devices that connect to the service, has long been a predominant reason why households that have broadband available do not subscribe. Stories of individuals traveling to and from public library facilities in order to apply for jobs and of students completing their homework at fast food restaurants or sitting outside major retailers in order to have access to high-speed connectivity became even more problematic with the onset of the pandemic when such institutions were temporarily or permanently forced to close their doors. We learned through this Study that certain schools in the Region were unable to ever transition to remote learning during COVID due to lack of at-home service and devices among their students.

Additional feedback received during the Needs Assessment/ community engagement portion of the Study consistently identified four overarching needs facing the region:

- 1. **Regional leadership and cooperation to support broadband deployment;**
- 2. **Affordable, reliable broadband service for Regional residents and businesses;**
- 3. **More choices of broadband providers; and**
- 4. **Creative, new models to address local broadband needs.**

To address these needs, we recommend the following projects, in the order of implementation:

TIMELINE	RECOMMENDATION
SHORT-TERM	1. Identify the Eastgate Regional Council of Governments as the regional broadband convener & coordinator and incorporate additional staff support to implement the projects.
	2. Assist in marketing low-cost offerings currently available through broadband providers, and assist with sign-ups for the FCC’s Emergency Broadband Benefit (EBB) Program.
	3. Maintain a comprehensive regional asset inventory, including digital inclusion programs.
	4. Review and potentially revise or enact municipal Right-of-Way ordinances in order to ensure they are conducive to state-of-the-art ROW management and aligned with state and federal law for the deployment of small cell facilities and wireless support structures.
	5. Adopt a regional Dig-Once Policy in order to encourage conduit be installed when public rights-of-way are excavated or otherwise opened.
	6. Establish partnerships among public entities including affordable housing, education, healthcare, transit, libraries, and Information Technology Centers, to address specific broadband access and digital equity/ inclusion needs.
	7. Encourage build-out by existing providers through applications to Ohio’s Residential Broadband Expansion Grant Program and NTIA’s Broadband Infrastructure Program.
MID-TERM	8. Establish New Broadband Authority to assist in funding additional regional buildout.
	9. Consider launching Innovation Districts in areas with a Historic Building or Historic District, designated at the local, state, or federal level, for connectivity and business incubation.
LONG-TERM	10. Issue a Request for Information and/ or Request for Proposals to support public-private partnership(s) for fiber and wireless expansion, including soliciting ideas for the following:
	10.1 Regional backbone fiber expansion along Route 7 and Route 11, supplemented with East to West Connectivity along the Ohio Turnpike, 88, and 305 to ensure additional service to Townships and building off of the regional backbone(s): <ul style="list-style-type: none">» Conneaut to Pierpont Township to Kinsman Township to Brookfield to Hubbard to Liberty Township/ Girard to Niles to Warren to Newton Falls to the Turnpike» Conneaut to Pierpont Township to Kinsman Township to Brookfield to Hubbard interconnected at 304 into Youngstown to Boardman» Conneaut to Pierpont Township to Kinsman Township with East-West connections on 88 at Vernon and on 305 at Hartford in order to address Bristol, Mecca, and Johnston Townships on 88 and Champion and Bazetta Townships along 305)» Ashtabula to 224 eastward into Poland Township and westward into Canfield, then connect into conduit along 224 in Canfield
	10.2 Broadband access expansion to agricultural regions in Southern Ashtabula County, South of 90; and Northwest Trumbull County
	10.3 Lateral connections in downtown Warren, Ohio in Trumbull County
	10.4 Network expansion for Smart City implementations and affordability for residents in Youngstown

In developing the recommendations, we considered the following, among others:

- How accessible is broadband by speed and technology type currently? Is current broadband access meeting local needs of residents, businesses, and community groups?
- How many broadband options/ provider are available to end-users in the Region?
- What assets already exist that could support additional fixed and wireless broadband expansion and provider choice in the Region?
- Of those with access, what are the subscription rates in the Region and how do these change among different demographic groups and income levels?
- What programming is available and needed to support digital inclusion within the Region?

The findings throughout this Study in many ways aligned with what we would expect: those areas with lower population density experience lower broadband availability, and lack of choice/ competition among broadband providers further impacts broadband availability and affordability. However, this circumstance is not borne entirely by the rural regions of these Counties – four communities, at least one from each County, are included among Connect Your Community’s “Fifty Worst Connected Communities in Ohio with Populations over 5,000” – Youngstown (2nd); Warren (5th); Ashtabula (20th); and Niles (32nd).

The access and affordability issues plaguing the Region are not new and several efforts have already taken place to address them, including a 2017 Connect Ohio Connected Community Assessment for Youngstown/ Mahoning County; the Ashtabula Broadband Task Force, created to be a forum in which interested parties could provide updates and work collaboratively on the broadband issues facing Ashtabula County; and the specific call-out to broadband in the Eastgate Regional Council of Government’s Comprehensive Economic Development Strategy (CEDS).

Access to high-speed internet is of tremendous importance to the long-term economic viability of the Eastgate region. As technology continues to advance, so does the way in which data is transmitted, and the speed at which that data can reach its end-user. Thus, the need to study and explore the feasibility of installing modern broadband infrastructure is paramount when considering its commercial use to draw in new business investment, while also retaining major employers within the region.

– Eastgate CEDS

You will often hear the project team say that broadband is not Field of Dreams: it isn’t “if you build it, they will come.” However, if you don’t, they will likely leave. Implementing the recommendations in this Study will set a new vision for the Eastgate Region; one in which connectivity and supporting programming is readily available to all who need it, creating new opportunities for community and economic development, and ensuring long-term regional vitality.