**BERRIEN COUNTY BROADBAND INTERNET TASK FORCE**
❧ **BCBIT** ❧

**April 14, 2022**

**12:30 PM via Zoom+**
**Berrien County Administration Center**

**MEETING NOTES**

**Attendees:**  Berrien County Commissioner **Teri Freehling**; Berrien County Commissioner **Jim Curran**; Berrien County Commissioner **Ezra Scott**; Berrien County Administrator **Brain Dissette**; Berrien County Corporate Counsel **Thaddeus Hackworth**; Berrien County Community Development Director **Dan Fette**; Southwest Michigan Planning Commission (SWMPC) Executive Director **John Egelhaaf. Zoom Attendees:** Merit Network.

I.  **Merit Update on Berrien County Broadband Network Currently Available.**  This agenda item was moved to the beginning of the meeting as Merit Network was present via Zoom. Merit Network (Merit) presented to the group the company's network currently availiable in Berrien County. Merit gave an overview of the company's organizational structure as a non-profit, their accomplishments, and discussed expansion opportunities. As a non-profit, Merit provides high-performance computer networking and related services to educational, governement, healthcare and other non-profit organizations, primariliy in Michigan.  Merit is able to support these groups with a fiber-ring that loops across the state of Michigan.  Merit's fiber-ring is almost 4,000 miles, connecting community to and through anchor institutions which often face high costs and/or limited technology options.  Merit's fiber-optic network provides a much needed backhaul infrastructure that was not there and which was limiting internet service performance, avaliability and affordability in rural and remote parts of Michigan.  Merit's fiber-ring was completed in 2014 with funding from the American Recovery and Reinvestment Act of 2009 (Recovery Act) (ARRA), enacted by Congress to address the aftermath of an U.S. economic meltdown created by the simultaneous combustion of a housing market bubble-burst, a subprime mortgage crisis and the collapse of Lehman Brothers, a global financial services firm.

    Merit discussed the main source of funding for this project, the American Recovery and Reinvestment Act of 2009 (ARRA). A portion of ARRA instructed NTIA[1] to implement BTOP[2] as a way to help bridge the technological divide, create jobs and improve education, health care, and public safety in communities across the country through deploying broadband internet infrastructure, enhancing and expanding public computer centers and encouraging the sustainable adoption of broadband service.  Merit Network received a total of $102.9 million (initially $33 million) in federal

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[1] Nation Telecommunications and Information Administration (NTIA), an Executive Branch agency within the Department of Commerce principally responsible for telecommunications and information policy issues with a program focus largely on expanding broadband internet access and adoption in America.

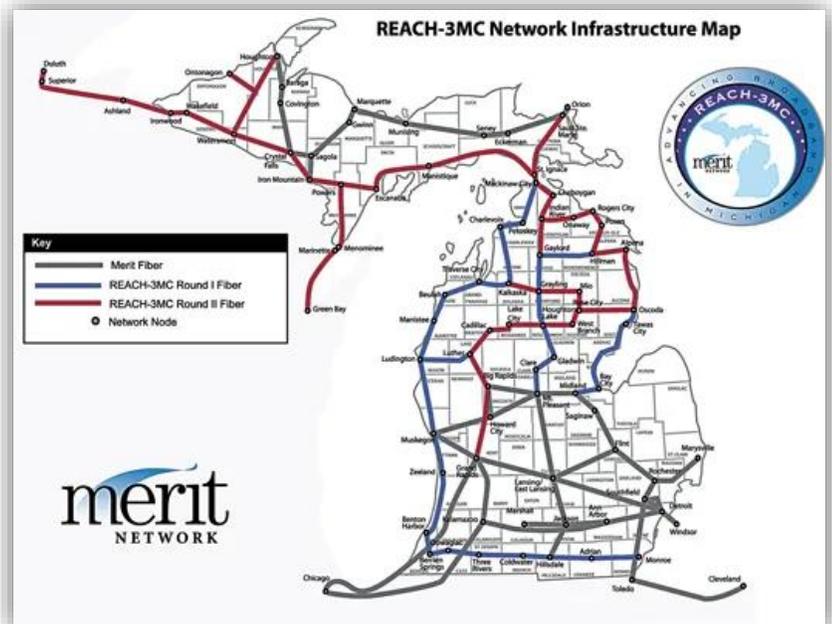[2] Broadband Technology Opportunities Program (BTOP), a NTIA initiative.

funds and $8.3 million in matching funds from the University of Michigan and the Michigan Economic Development Corporation's (MEDC) Michigan Strategic Fund (MSF) to complete this project. This project constructed 2,287 miles of an almost 4,000 mile, open-access advanced fiber-optic network throughout the state of Michigan.

This project's focus was to connect and increase bandwidth to the unserved, underserved, and remote areas in Michigan with a project name of **REACH-3MC**: **R**ural, **E**ducation, **A**nchor, **C**ommunity, **H**ealthcare – **M**ichigan **M**iddle **M**ile **C**ollaborative).

**This is how REACH-3M works:** Merit partnered with seven (7) commercial Internet service providers (ISPs) as grant sub-recipients to create the infrastructure that services the major sectors of society, including homes, businesses and CAIs (community anchor institutions). The REACH-3MC


REACH-3MC Network Infrastructure Map

network consists of a mainline network. Merit and the grant sub-recipients constructed fiber-optic laterals from the mainline to connect individual CAIs and businesses and to access cell towers and central office facilities. Both the mainline and laterals were constructed in parallel (Merit was digging once, before digging-once was cool).  Merit and sub-recipients each own fiber strands within the cable over various portions of the REACH-3MC network.  This ensures competition at every interval. The network is governed by open access principles enforced by the grant: ISPs cannot be denied access to the network where capacity permits. The REACH-3MC project aims to solve the lack of backhaul infrastructure in Michigan's remote and rural area, where residents have had (and still have) challenges accessing information and CAIs and businesses have had to contend with substandard levels of Internet, telecommunication and networking access and services, putting families and organizations at a disadvantage. To address such limitations, the REACH-3MC project is providing 143 CAIs with 1 Gbps-dedicated connections to Merit, enabling collaboration with more than 230 other CAIs already connected. REACH-3MC expanded Merit's footprint to more than 4,000 miles.  Because of this project, Michigan's public institutions have a mechanism to cut costs and provide more service to their constituents.  As a middle-mile project, the aim of REACH-3MC is not to directly connect every home and business in the network service area, rather, the goal is to bring the backhaul infrastructure into rural regions and then give ISPs the opportunity to use the infrastructure to provide faster, cheaper, and more reliable service.
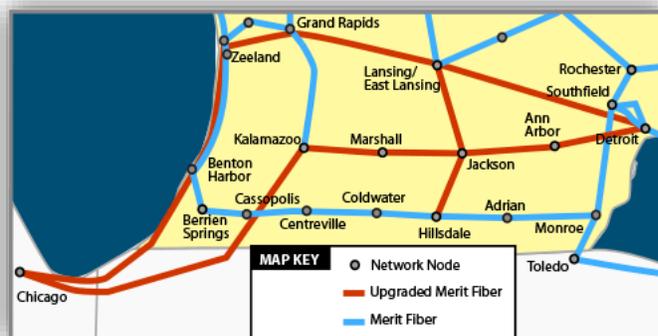
Initially, or possibly a requirement of the environmental review for the REACH-3MC project, Merit explored the option of purchasing Indefeasible Rights of Use (IRU) to interconnect existing fiber

where possible, but they soon found out, there was little fiber available to do so. As a result, Merit pursued new construction as the only feasible alternative for the majority of the network expansion. The REACH-3M network, expanded from Merit's existing network, facilitating the construction of a fiber-ring backbone that provides at least two point of connection at major network hubs, and built-in, on-net path diversity to from the network core. The network also has two major exit points to the Internet with a route to Chicago and a route to Toledo. A third path serves a site in Sault Ste. Marie and interconnects with a network in Ontario, Canada. This provides redundancy between major network interconnection points.

The Merit Network is constructed and maintained as an open network, allowing for third party service providers access to the backbone at strategically placed network interconnection points spaced at approximately 1,500 – 2,000-foot intervals, or splice points, along the route to address the lack of home and business connectivity, including business and industrial parks, along the route.

Currently, Merit is in the process of completing several upgrades to its statewide, fiber-optic backbone including a project rebuild in downtown Benton Harbor. This upgrade and rebuild is in the City of Benton Harbor at the anchor institution Kinexus, our region's local workforce development office. Additionally, the other anchor institution in our area connected as result of the REACH-3M Project is Lake Michigan College (LMC), with a main campus in Benton Harbor on Napier Avenue, and three campus locations in Southwest Michigan allowing LMC to network and develop relationships and educational opportunities with K-12 schools for hybrid and remote programs. Other anchor institutions on the network in Berrien County are Andrews University in Berrien Springs and the Berrien RESA (Regional Education Service Agency) in Berrien Springs.

Merit proposed to BCBIT, while they are at the Kinexus location in Benton Harbor they could go across the river and connect the Sheriff's Office and the Courthouse, thus creating a network redundancy necessary for seamless telecommunication operations in the event of a slice in the line, a "missed dig", or a hungry squirrel. Building off of this proposed fiber infrastructure build-out is in conjunction with previous discussions with Merit regarding a County-owned fiber-ring connecting all County facilities through a secure VPN[3]. Merit owns the cable sheath and 18 of the 144-strands within the cable sheath carrying the fiber optics strands. We could probably need six (6) of these strands. Two strands for optimal network performance (one upstream, one downstream) two stands for production (switch out, or ramp ups), and two for development and emergencies.

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[3] Virtual Private Network (VPN) is best described as a secure, encrypted online network connection for data and communication travel in your own protected tunnel.

Administrator Dissette discussed the opportunity, optimization, cost control, and security benefits of the County on the Merit Network subject to terms and conditions of an agreement know as an Indefeasible Right of Use, or an IRU. Like a condominium, an IRU establishes us as owners proportionately to the other owners within the cable sheath. The IRU has a monthly cost shared proportionately among the owners. This monthly fee covers line maintenance, performance optimization, upkeep, and anything irregular that occurs with owning a power line (miss-marked [Miss Dig-811](), backhoe, squirrels, etc.). Costs above and beyond are shared proportionately among the owners. The cost is $750 per mile annually. We would probably need 70 miles to connect all County facilities, or $52,500 a year. Administrator Dissette will have our Information Systems (IS) Director Chris Swihart connect with Merit Network (no pun intended) to discuss technical particulars and feasibility of a Countywide network with Merit. With a County owned network, commercial for-profit ISPs could network off our line to build out to remote, unserved and underserved areas of Berrien County and provide affordable, reliable, and high-quality accessibility for our citizens to connect to the internet.

II. **Broadband Projects on Full Boil, Simmer, or Just Warming Up.** Per discussion, this agenda item will be covered at each BCBIT meeting for discussion regarding broadband project updates throughout Berrien County. Per the agenda item title, broadband projects discussed are easily categorized as to whether the project is just getting started up, warming up, or shovel ready. Bainbridge Township and Oronoko Township are ready for ARPA Broadband Application Approval. Expect applications from other townships soon. Most likely we may run out of ARPA funding available, however, we will also know with these requests the additional grant dollars we need to pursue to get these projects completed.

   a. **Communities in the SWMPC Pipeline.** John Egelhaaf, SWMPC, stated he has had meeting with several municipalities showing an interest in the broadband planning services and ARPA application assistance his organizations can provide. Additional meet-n-greet meetings are scheduled for the next two weeks (two a day is the general flow). Sodus Township has shown an interest in submitting a Broadband ARPA Grant Application. Expect applications from Coloma and Baroda Township along with Pipestone Township.

   b. **Others.** There are several other communities showing interest and pursing funding. As stated, we have received ARPA Broadband Application Funding requests from Oronoko Township and Bainbridge Township, which will be reviewed in the next agenda item. Others also include Galien Township and Pipestone Township and many others showing interest. This all takes time. If a an entity has not had broadband to their citizens on the radar, starting from scratch, right now, as money is flowing, and the topic is prevalent, and not going away. Folks are finally understanding the wait and see approach is over. It's time to get the wheels in motion. Planning takes work. Implementation is even tougher. An excel list will be compiled for readability purposes at a later date.

   c.

III. **ARPA Application Recommendation Decisions.** BCBIT member received and reviewed two application from local municipalities for use of ARPA funds. These applications were received through a grant application process established through resolution by the Board of Commissioners to allow local municipalities to apply for a portion of Berrien County's ARPA Funds, of which $6 million is allocated to broadband infrastructure projects. The two townships reviewed at this meeting were applications received from Bainbridge Township and Oronoko Township. As part of the discussion, a 3rd party tech review of the application was sent via e-mail before the meeting in report form.

**Bainbridge Township ARPA Application Review.** Merit Network, as a third party tech analyst, submitted a report to BCBIT reviewing Bainbridge Township's Broadband ARPA Application and their request for broadband grant funding. There is question of overlap in funding, specific to RDOF. There are federal dollars allocated for broadband deployment in and around Bainbridge; however, the exact location related to the application will require further investigation at the parcel level, and though this could be an issue, this information was not requested or required to be submitted in the application itself. BCBIT Members agreed this project is ready to move forward and recommend approval following the County process. Upon approval by the Finance Committee, then followed by full Board of Commissioners approval, a grant agreement will be signed by Berrien County and Bainbridge Township.

> **BCBIT Member Concurrence:** **BCBIT Members reviewed the ARPA grant application from Bainbridge Township and recommend approval of their request for $562,500 to fund the construction of 15 miles of last-mile fiber optic broadband infrastructure at speeds up to 1 Gbps.**

**Oronoko Township ARPA Application Review.** Oronoko Township's submitted Broadband ARPA application and supporting 3rd party tech analysis was reviewed and discussed. The one-time installation connection fee to the home is stated at $500, a considerable barrier to access with a project subsidized by public money. In Merit's tech review, they recommended negotiating down this price to a $100 connection fee offered by the same company in other grant-funded areas (in and around Berrien County). Inclusion of residents on private roads to connect may need to be reviewed further. At the meeting, Administrator Dissette email the company and received a response post meeting that $99 connect fee will be honored. Additionally, the tech review summarized a concern this project most likely has redundancy with federal funding using RDOF dollars. Exact location, by parcel, will be reviewed once the parcel analysis is completed. BCBIT Members agreed this project is ready to move forward and recommend approval following the County process. Upon approval by the Finance Committee, then followed by full Board of Commissioners approval, a grant agreement will be signed by Berrien County and Oronoko Township.

> **BCBIT Member Concurrence:** **BCBIT Members reviewed the ARPA grant application from Oronoko Township and recommend approval of their request for $700,000 to fund the construction of 27.2 miles of last-mile fiber optic broadband infrastructure at speeds up to 1 Gbps.**

IV. **ARPA Grant Application Deadline Discussion.** This agenda item was moved up as a natural flow of discussion following the ARPA Application Recommendation discussion. Currently, the Berrien County ARPA Broadband Application, approved by the Berrien County Board of Commissioners (Resolution B2201191), has an application deadline posted and published as July 1, 2022. This date allows builds in considerations of a successful project completion to the parameters set forth by ARPA funding; that is projects must be under contract by December 31, 2024 and completed by December 31, 2026. These dates established by the Act are non-negotiable. The discussion set forward here, post workshop, post application approval, is to move the deadline date for ARPA Broadband Applications from July 1, 2022 to October 2022. This would result in communities that have not submitted the opportunity to use data from the DCS Technology Design (DCS) survey to complete their application with address or parcel level detail, not seen in the applications received thus far. Though the application itself does not specifically request this micro-level detail to apply, parcel level detail, or address detail, would be a necessary component of the RFP. The discussion to move the July 1 deadline to October 2022 would run parallel to the anticipated timeline of completion by DCS of Berrien County's broadband inventory mapped by parcel in GIS. Communities could use the DCS data in their application. The communities that have already submitted their applications and those in the pipeline ready to submit would not have this data as part of their application. If we wait, to allow the DCS data to be completed and included as part of a municipality's applications submission, but we are out of money, the question will be why did you approve funding for the applications that do not have the DCS information. One would look more complete than the other, however, the application does not necessary ask for this initial level of detail to be submitted as a completed application for review and approval. Parcel level detail is needed in the RFP regardless.

A view from the other side, if the deadline is moved, an application submitted is the size of a textbook, there may be a question called about favoritism or a process of FIFO, vs completeness. There is also a thought that municipalities need more time. As such, Bainbridge Township and Oronoko Township have submitted their applications for review. Though July 1 is looming near, pushing out the application deadline to October with the anticipation of applications coming in to incorporate this data changes the parameters on the applications already received and in the pipeline and could cause confusion. As it is, we may be out of money by July 1, so discussing a timeline extension for when applications are due may not be necessary.

As it relates to the ARPA application, John Egelhaaf, SWMPC, wanted to review the scoring matrix presented at the workshops, vs the scoring matrix he presented to the group in an email. The simplicity of the scoring matrix presented at the workshop is too simple. For point of clarification, this was used as an example, and again, presented at the two workshops. John believes the scoring matrix he has of multiple categories, and varying points allocation emailed to the group is much better. Egelhaaf asked the group to decide on a scoring matrix and was a bit confused as how the other matrix was decided, though it really was not, if that was the decision. A more complex scoring matrix provides objectivity to the final score, allowing for more discussion and thoughtfulness towards the final decision to move forward with an application or request more detail. We need to rescore with the more complex, or a more complex matrix.

**V.** **DCS Mapping Contract.** [DCS Technology Design](#) (DCS), out of Chelsea, Michigan, is a unique company with the expertise to survey and map, at the parcel level in GIS[4], which parcels have Broadband, and which do not. An inventory of exact street addresses provides a good base of information for all broadband requirements and can stream line deployment priority, along with identifying projects underway serving an area, that was initially thought to be unserved, or underserved but has since been lit up, or has the infrastructure under contract to be lit through grant funding or otherwise. Under contract with Van Buren County for their services, a meeting with them while they are in the area occurred prior to this meeting. Once DCS has completed their survey and study report out to Van Buren County, they would like to inventory Berrien County. DCS will do a physical survey of parcels and address including the townships, villages and all rural areas documenting broadband access or not. This is not a self-reporting survey by Internet Users, Internet Providers, Government Agencies, or other service provides. This is boots-on-the-ground, grass roots, door-to-door data collection. The final report will include the following:

- Served/Unserved audit of every parcel/address

- Inventory of cabled technologies, DSL, fiber, wireless (or lack thereof)

- Consolidated database into ArcGIS for use by Berrien County for efficient planning, engineering, construction estimating, infrastructure deployment, and upgrade strategies for internet connection.

Information at the parcel level will provide an accurate snapshot of what technologies are available, what is being planned, and a precise snapshot of the entire County not typically available elsewhere in a consolidated format viewable to a level of detail and granularity found only in Geographical Information Systems (GIS) based maps.

See the [DCS Technology Design Rural Broadband Inventory study presented to Leelanau County Board of Commissioners](#) as a reference. As it relates to Broadband RFPs, we need to have parcel detail at the address level. DCS Technology Design can make this happen. Administrator Dissette has asked for a bid waiver request to hire this company, with an expected start time of July, and a full report presented in October to the Board of Commissioners.

> **BCBIT Member Concurrence:** **Members of BCBIT recommended in concurrence to move forward with a resolution and bid waiver request to contract with DCS Technology Design to conduct a comprehensive broadband survey detailed by parcel to streamline investment decisions.**

A resolution and bid waiver request will be presented to the Finance Committee for approval, then sent to the full Board of Commissioners for approval. This resolution is to contract with DCS Technology Design for completion of a County-wide map of broadband availability, parcel-by-

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[4] GIS: Geographic Information System is interactive mapping software to make maps, analyze data, and manage imagery projects.

parcel, at a cost of $185,300.  Anticipated completion is October.   Final report will include a study and parcel-by-parcel information in ArcGIS.

VI.     **GEO Crowd Sourcing Capability.**  John Egelhaaf, SWMPC, discussed progress his team is making with loading data to the GEO Crowd Sourcing software.  This software will allow him and his team to calculate project costs in a variety of scenarios.

VII.    **Funding for SWMPC Grant Writing.**  John Egelhaaf, SWMPC, discussed briefly other possibilities of grant funds his grant writer could target, and was looking for guidance from the group. We were running tight on time.  This agenda item will be revisited later.

VIII.   **Miscellaneous.** Next BCBIT Meeting is May 5, 2022.