Connect Michigan
Technology Transitions

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Discussion Topics

✓ Program Overview

✓ Connected Community Engagement Program

✓ Technology Transitions and Access to Data

We value the information Connect Michigan offers to townships around the state and look forward to the continuation of Connect Michigan’s mission to facilitate the expansion of broadband access and use throughout the Great Lakes State.

—Michigan Townships Association
By the Numbers

- **10** state-based broadband public-private partnerships, from Alaska to Puerto Rico, impacting **876** counties
- Library-focused initiatives in an additional **13** states in partnership with the Bill & Melinda Gates Foundation
- Broadband availability mapping in **37%** of U.S. landmass and **27.5** million households
- Connectivity surveys and mapping for **90,000** Community Anchor Institutions
- **171** communities actively engaged in local technology planning activities
We partnered with Connect Michigan to create a pilot program to help communities create local task forces to improve their small businesses’ use of technology—with great success. We hope to work on similar collaborative projects in the future.

—Community Economic Development Association of Michigan
1.9 million adults without broadband at home in 2014

2014 Residential Adoption: 75%

- 29% say they don’t need it
- 19% say they can’t afford it
- 17% say they don’t know how to use it
- 7% say it’s not available to them

2010 Residential Adoption: 67%

It has been through the assistance, leadership, and guidance of Connect Michigan that our community has been able to gain the much needed knowledge to begin to move forward with a clear understanding of our current service levels and the development of a plan.

—Barry County Chamber of Commerce
53,000 Michigan businesses without broadband in 2014

37%...say they don’t need it

18%...don’t have a computer

4%...say it’s too complicated

3%...say they can’t afford it

2010 Business Adoption: 70%

2014 Business Adoption: 80%

The Connect Michigan initiative has helped not only our local communities get connected, it has helped our local entrepreneurs and businesses succeed right from their own homes or businesses located outside the city limits.

--West Central MichiganWorks!
1. Local technology planning program
   a. Establish community team of diverse stakeholders
   b. Assess the local broadband/technology landscape against standards based on the National Broadband Plan
   c. Develop a plan to fill gaps and local technology issues identified through the assessment process
   d. Implement projects to increase the access, adoption, and use of technology and broadband throughout the community
   e. Achieve Connected certification

2. Federal grant funded and required engagement with 14 communities in Michigan

3. Actively working with 53 communities

Connect Michigan’s community outreach and education programs, policy analysis, and broadband mapping initiatives have proven to be highly effective tools in Michigan’s continued strides toward more broadband connectivity and, ultimately, our state’s economic prosperity.

—Frontier Communications
Assessment

ACCESS – is the infrastructure available?

<table>
<thead>
<tr>
<th>Availability</th>
<th>Speed</th>
<th>Competition</th>
<th>Platform Dependency</th>
<th>Middle Mile</th>
<th>Mobile</th>
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</thead>
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ADOPITON – are the skills and desire present?

<table>
<thead>
<tr>
<th>Basic Adoption</th>
<th>Digital Literacy – Hardware</th>
<th>Digital Literacy – Software</th>
<th>Digital Literacy – Online Activity</th>
<th>Public Computer Centers</th>
<th>Frequency of Use</th>
<th>Affordability</th>
</tr>
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</table>

USE – how does our community leverage technology?

|------------|---------------------------------|---------------------|----------------|------------|--------|-------------|---------------|-------------------------------------|-----------------|
• Seven states participating in Connected (Michigan, Ohio, Tennessee, South Carolina, Iowa, Texas, and Nevada)

• 57 communities have attained Connected Certification (nationwide)

• 15 are in Michigan (Antrim, Charlevoix, Clare, Crawford, Gladwin, HARBOR, Inc., Houghton, Livingston, Marquette, Mecosta, Ogemaw, Otsego, Roscommon, St. Clair, and Wexford Counties)

• 67 communities have received a Technology Action Plan, but have not attained certification

• More than 3,200 participants have been engaged in the Connected program in the last three years

• Ongoing funding from Michigan Public Service Commission and state Department of Agriculture

Through the Connected Community Engagement Program we have put together a plan for broadband access, use, and engagement. This is the first time our area has looked at improving broadband access, and it’s been a tremendous tool in building improved access for the future.

—Delta County Economic Development Alliance
Community Impact

Michigan Program Impact

<table>
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<tr>
<th>Metric</th>
<th>Connected Communities</th>
<th>Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Mbps Broadband Availability Growth between 2011 and 2014</td>
<td>17%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Residential Broadband Adoption</td>
<td>85%</td>
<td>79%</td>
</tr>
<tr>
<td>Businesses with Websites</td>
<td>70%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Crawford’s Technology Action Plan sets general community-wide broadband connectivity goals that will support economic development and residential quality of life for many years to come. We look forward to working with Crawford County as they begin to implement their technology plan.

—Northeast Michigan Council of Governments
Technology Action Plans

- Projects being implemented include:
  - Website and social media classes for businesses
  - Digital literacy campaigns
  - Residential and business surveys to better identify access issues and areas of demand
  - Zoning ordinance language review and updates, and other regulatory language modifications to lower barriers to expansion
  - Awareness and support campaigns for educational one-to-one device programs
  - Support for local placemaking initiatives
  - Public-private partnerships for infrastructure expansion

- Increasing use of residential surveys to more precisely identify local demand to support provider business cases (and continually refine Connect Michigan maps)

- Community broadband plans almost always include support for small businesses (website and social media development, technology for entrepreneurs, new business incubators and facilities, etc.)

*Through Connect Michigan we devised a project plan to assist our county, our businesses, and residents to enter into the global arena. Without the guidance of Connect Michigan our county would not have had access to the knowledge base that enabled us to complete the assessments needed for certification.*

—Roscommon County Economic Development Corporation
Collaboration between schools, libraries, local government (cities and townships), and broadband provider resulted in public-private partnership for expanding service in rural areas.

Leveraged unused portions of existing fiber ring to increase capacity for spurs to rural areas; townships shared the cost of tower construction; ISP installed equipment, and provided service.

Unserved Household Density: October 2011
69% of households with access to 3 Mbps

Unserved Household Density: October 2012
88% of households with access to 3 Mbps

It is our sincere conviction that the Connect Michigan program has made a significant difference throughout Michigan in expanding access to broadband Internet service and also by expanding the knowledge and use of this very important communication system.

—City of Clare
First publicly available map of fiber routes

Voluntary participation from carriers

When clicked or address entered, lists carriers:
- w/fiber within a ¼ mile
- w/100 Mbps service
- known to have fiber in the municipality

www.miconnects.org

As we embark upon the many initiatives identified in our Technology Action Plan and beyond, it is crucial that the services of Connect Michigan remain viable to maintain the forward momentum required to resolve our issues with broadband access, adoption, and use.

—Harbor Area Regional Board of Resources, Inc.
- Developed a methodology to examine multiple broadband variables simultaneously to identify areas in need of infrastructure improvements.
- Combined speed, dependency, competition, and density.
- Updating for FCC definition, historical growth, cost, adoption, etc.
What role can and should community engagement and outreach play in the IP transition?

What is needed for community engagement to be successful in this regard?
Public Act 52 of 2014

- New process effective January 1, 2017

- ILECs can ask to discontinue basic local exchange service if “comparable” voice service with “reliable access to 9-1-1” exists
  - “Comparable voice services” defined to include interconnected VoIP and wireless
  - “Reliable access to 9-1-1” includes “rules, regulations, and guidelines” in FCC January 2014 Technology Trials Order (FCC 14-5)

- If FCC grants Section 214 application for discontinuation, ILEC to provide 90-day notice to all customers in exchange, interconnecting providers, and MPSC

- If claimed that standard not met, MPSC has 180 days to investigate

*Michigan Telecommunication Act, Section 484.2313*
If a “comparable” alternative not available, MPSC can declare an “emergency” and ask for “willing providers” to offer service.

- MPSC cannot make alternative providers participate
- MPSC cannot use state universal service fund to fund alternative provider
- If no willing provider, MPSC can order incumbent to offer the service using an approved technology
- “Comparable voice services” defined to include interconnected VoIP and wireless
- “Reliable access to 9-1-1” includes “rules, regulations, and guidelines” in FCC January 2014 Technology Trials Order (FCC 14-5)

MPSC required to establish a publicly available database of providers of toll or local exchange service in each exchange; providers required to furnish data to prepare and maintain that database

*Michigan Telecommunications Act, Sections 484.2103, 484.2313*
Role for Community Engagement

- Educate and train consumers
- Educate and train small businesses
- Inform local government and public safety community
- Provide forum for incumbent to understand and address particular or unique challenges to community
- Identify, develop, and expedite solutions to copper infrastructure alternatives
- Technology training and skill development so that consumers and small businesses can use new technology to maximum impact

Connect Michigan is one of the few industry organizations that is truly independent and working in the best interests of the consumer. We feel the information we receive from Connect Michigan is neutral and un-biased.

— Air Advantage
Effective Community Engagement Programs Require Timely and Verified Data

- Despite Congressional mandate in Broadband Data Improvement Act that states be on forefront of collecting broadband data to support local planning initiatives pursuant to federal standards, states are “going at it alone” – this is costly to states and a missed opportunity for FCC

- How FCC and states can work together
  - Timely updates to National Broadband Map
  - Full data access to states and communities
  - Documentation of data validation procedures used on provider submissions
  - Notification to states on 477 revisions, corrections, and FCC staff review
  - Inquiry Process for communities and citizens
  - Include anchor institution, small business availability
  - More granular representation, include infrastructure assets
  - Document and verify Connect America Fund build-out
Questions?

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