The Status

of

Telecommunications

Competition

in

Michigan

June 2013

Submitted by the Michigan Public Service Commission
Michigan Department of Licensing and Regulatory Affairs
In Compliance with Public Act 179 of 1991 as Amended

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

Table of Contents

Introduction

Section 103 of the Michigan Telecommunications Act (MTA) as amended (MCL 484.2103), directs the Michigan Public Service Commission (Commission) to submit an annual report describing the status of competition in telecommunications service in Michigan, including, but not limited to, the toll and local exchange service markets in the state. The MTA requires providers to submit to the Commission all information necessary for the preparation of the annual report under this section.[1] This thirteenth report filed by the Commission includes information on the traditional wireline industry as well as other telecommunications technologies. According to the MTA revisions adopted in June of 2011, this subsection of the MTA does not apply after the Commission issues its annual report under subsection (2) this year. Consequently, this will be the last report on the Status of Competition in Telecommunications Service in Michigan filed pursuant to the MTA.

The telecommunications industry in Michigan continues to experience the same technological changes as the rest of the nation. The *Status of Telecommunications Competition in Michigan* report for 2012 finds that incumbent providers have continued to experience a decrease in their traditional wireline customer lines, a trend that began in the year 2002, while competitive providers have experienced a small decrease in their overall lines after three years of increasing wirelines. Competitive providers appear to be relying less on the incumbents' network and more on provisioning their lines over their own networks. At the same time, alternative technologies, such as wireless and voice over Internet protocol (VoIP), continue to add subscribers. The broadband market also continues to experience growth, especially in mobile wireless customers.

[1] Wireless service is not regulated by the Commission pursuant to Sec. 401 of the MTA and as such wireless providers are not required to report this information to the Commission.

Toll Markets

Long distance service is technically referred to as toll service and the providers of such services are referred to as interexchange carriers (IXCs). IXCs that own their own facilities are required to provide very little information to the Commission related to their operations. The Commission does not license IXCs. They are required only to file tariffs with the Commission that are consistent with the provisions of the MTA. IXCs providing toll service via resale[2] are exempt from even this tariff filing requirement. As a result, there is limited information available regarding market share, customer numbers, or revenues for IXCs.

As a historical perspective, back in 2000, the FCC detariffed the interstate, domestic, interexchange services of nondominant IXCs. Detariffing means that long distance companies were no longer required to file a document called a "tariff" for purposes of notifying the FCC about the rates, terms and conditions of long distance service offerings. The FCC concluded that detariffing would enhance competition among providers of interstate, domestic and interexchange services, and promote competitive market conditions. IXCs currently provide information to consumers via other means, such as their websites.

While the reselling of toll services is unregulated, the Commission has a registration process pursuant to MCL 484.2211a. Under this program, 180 carriers registered as resellers of toll service in Michigan for 2012. Although this is a self-registration process and is not subject to verification, it does indicate that there are numerous providers of this service. Additional information is available in the latest report the FCC issued in September 2010, *Trends in Telephone Service*. The FCC report indicates that between 1999 and the end of 2003, the FCC approved all the section 271 applications by the Bell Operating Companies (BOCs) to provide

[2] Resale is buying long distance phone lines in quantity at wholesale rates and then selling them to the end user for a profit.

in-region interLATA[3] service throughout the United States.[4] In Michigan, this process was completed in September 2003. The FCC reports that more than 1,400 companies now offer wireline long distance service nationwide. These carriers remain subject to the FCC's jurisdiction. The FCC has chosen to rely on competition, rather than regulation, as much as possible. Thus, the FCC forbears from regulating most aspects of long distance service.

Again this year, the effects of competition in the toll markets are evidenced by the number of optional toll package alternatives available, the number of providers who offer them and the declining prices for higher usage customers who do not utilize basic toll rates. Bundling of services and new pricing plans, as well as the introduction of new technologies such as VoIP[5] has blurred the distinction between toll and local services. Many providers are offering unlimited local and long distance services, plus unregulated features, at one combined price. In some cases, these bundled services also include wireless, Internet access services, and video, commonly known in the marketplace as quadruple play.

Basic Local Exchange Market – Wireline

The Commission conducts annual surveys of AT&T Michigan, Frontier,[6] the smaller incumbent local exchange carriers (ILECs), as well as all licensed competitive local exchange carriers (CLECs) in order to obtain an accurate depiction of the competitive marketplace in Michigan for basic local exchange service. This survey includes ILECs that also operate as CLECs in Michigan as those lines provided in another ILEC's territory are considered competitive lines. CLECs are providers that compete in the same geographic area as ILECs.

[3] InterLATA service means telecommunications between a point located within a LATA (local access and transport area, also known as a service area) and a point geographically outside that area.
[4] Section 271 of the Federal Telecommunications Act of 1996 describes the conditions that a Bell Operating Company (BOC) must satisfy to enter the market to provide interLATA services, long distance in particular, within the region where it operates as the dominant local telephone service provider.
[5] VoIP is the technology used to transmit voice conversations over a data network using the Internet protocol. VoIP is discussed further elsewhere in this report.
[6] Frontier includes the former Verizon North Inc. and Contel of the South, Inc., d/b/a Verizon North Systems.

This year's survey was sent to the 40 ILECs and 173 CLECs in the state of Michigan that were licensed as of December 31, 2012. The data collected through this survey is for the year ended December 31, 2012. The information gathered assists the Commission in evaluating the scope of local competition in Michigan.

The results of this survey are presented as aggregate CLEC numbers to maintain the confidentiality of the individual company numbers. The surveyed companies consider some of the information requested to be confidential. For 2012, all of the ILECs responded to the ILEC survey and 165 of the 173 CLECs and ILECs that have CLEC operations filed a response to the CLEC survey. From this group of CLECs, 100 reported that they are actually providing local service.

As a historical perspective, in 2005 the Federal Communications Commission (FCC) and the courts overturned portions of the FCC's Triennial Review Order and eliminated the incumbents' obligation to provide the unbundled network element platform[7] (UNE-P) to competitors at a regulated cost-based price. Under the current MTA, telecommunications services are now largely affected by FCC requirements and market forces; all rate regulation was removed for retail local service with the 2011 amendments to the MTA.

The data for 2012 shows the total number of wirelines provided by ILECs and CLECs in Michigan was 3,078,219. This accounts for a decrease of about 266,000 lines from 2011 which is slightly lower than the average annual loss of lines over the past 14 years. From the data compiled for 2012, the number of lines provided by CLECs via their own facilities, through

[7] UNE-P is an unbundled network element platform or UNEs combined into a complete set in order to provide an end-to-end circuit. Some providers have opted to pay market-based rates for UNE-P until they have alternative arrangements in place to move those residential customers.

unbundled network element loops (UNE-L),[8] through local wholesale arrangements (LW), and through resale of incumbent providers' services was 1,022,729. CLEC lines accounted for 33.2 percent of the total lines in 2012. AT&T Michigan's share was 52.0 percent (1,599,467 lines)[9] while Frontier's share was 10.6 percent (327,057 lines). The small independent telephone companies represented the remaining 4.2 percent (128,966 lines) of the total lines in Michigan (Figure 1).

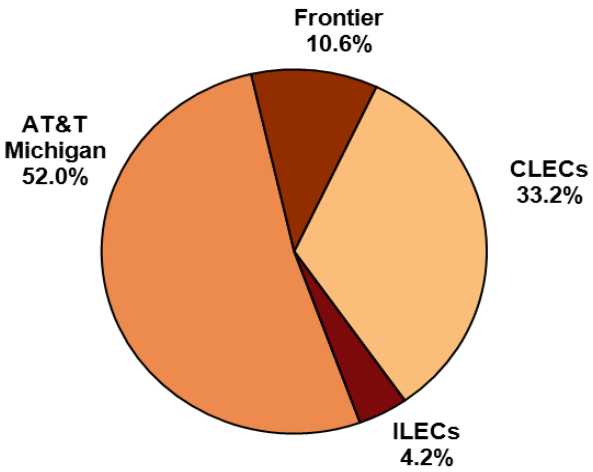

Figure 1: Michigan Market Share in 2011

The Commission continues to license new providers, and as of the end of 2012, CLECs were providing service to 33.2 percent of the wirelines provided to customers in Michigan. This represents an increase from last year and continues the trend of increasing CLEC market share over the last four years. On January 14, 2013, the FCC released its latest report to date on *Local Telephone Competition: Status as of December 31, 2011*. For the Michigan companies that are required to report this data to the FCC, the ILECs reported 2,334,000 switched access lines and 179,000 voice over Internet protocol (VoIP) lines for a total of 2,513,000 lines,[10] while the CLECs reported 432,000 switched access lines and 1,168,000 VoIP lines which amount to 1,601,000 lines, for a total of 4,114,000 lines. From the most recent data available from the

[8] UNE-L is an unbundled network element loop and is a common strategy used by facilities-based CLECs. A CLEC owns the local switch and leases the local loop from the ILEC. Unbundled network elements (UNEs) are defined as physical and functional elements of the network, *e.g.*, Network Interface Devices, local loops, switch ports, and dedicated and common transport facilities.

[9] This is the number of lines as reported by AT&T Michigan, which includes the lines of the former AT&T Communications of Michigan, Inc. and TCG Detroit Holdings I, Inc.

[10] The total lines reported by the ILECs to the FCC differ from the lines reported to the Commission due, in part, to the difference in the date the lines were reported and due to the difference in the reporting by VoIP providers to the FCC and the state.

FCC, the CLECs' share of Michigan's lines (including interconnected VoIP) was 39 percent as of December 31, 2011. One-hundred-thirty-two switched providers reported data to the FCC, (25 ILECs along with 128 CLECs) as well as 98 interconnected VoIP providers.

The chart of the Michigan survey results, Figure 2, categorizes the CLECs according to the number of customer lines that they served in 2012. The data indicates that of the 165 CLECs reporting, 65 (39 percent) were serving no Michigan customers in 2012. A second group of 51 CLECs (31 percent) served between one line and 1,000 lines. A third group served between 1,001 and 10,000 lines each and is comprised of 29 CLECs (18 percent), and the last group of CLECs served over 10,000 lines each and represents 20 CLECs (12 percent).

CLECs With No Lines	65	39%
CLECs With 1 – 1,000 Lines	51	31%
CLECs With 1,001 – 10,000 Lines	29	18%
CLECs With over 10,000 Lines	20	12%
Total CLECs Responding to Survey	165	100%

Figure 2: The 2012 Michigan Survey Results

Figure 3 represents the data gathered by the Commission over the past 14 years. As is shown, while total wirelines have consistently decreased since 2001, the actual number of CLEC providers and CLEC lines in Michigan grew over the first six years that this information was gathered; the CLEC market grew from a four percent share to a peak of 27.5 percent share at the end of 2004. However, for 2005, 2006 and again in 2008, Michigan experienced decreases in CLEC lines. In 2009, Michigan's competitive lines rebounded and grew to slightly under a million lines. For 2010, the increasing competitive lines trend continued due, in part, to the higher interconnected VoIP provider participation in the 2010 data request. In 2011 and again in 2012, there was a slight decrease in CLEC lines; however the CLEC market share again reached a new high of 33.2% of the wireline market in Michigan.

Year	Licensed CLECs	CLEC Replies	CLECs with Lines	CLEC Lines	Total Michigan Lines	CLEC %	AT&T Michigan %	Frontier %	ILECs %
1999	120	59	23	268,385	6,726,971	4.0	81.0	11.5	3.5
2000	167	69	31	446,164	6,901,813	6.5	78.0	12.0	3.5
2001	173	102	42	896,023	7,014,263	12.8	72.2	11.5	3.5
2002	219	113	54	1,447,176	6,668,124	21.7	62.9	11.9	3.6
2003	192	112	70	1,677,423	6,334,114	26.5	57.7	11.2	4.5
2004	202	127	77	1,681,173	6,103,250	27.5	56.9	11.8	3.7
2005	188	142	78	1,158,550	5,471,708	21.2	62.6	12.3	3.9
2006	210	116	63	961,460	5,260,443	18.3	65.5	12.3	3.9
2007	202	146	94	1,013,897	4,904,384	20.7	63.5	11.8	4.0
2008	203	122	67	859,370	4,286,071	20.0	64.2	11.5	4.3
2009	190	129	79	947,068	3,907,129	24.2	60.8	10.7	4.3
2010	190	132	74	1,032,595	3,627,513	28.5	57.1	10.5	3.9
2011	206	161	91	1,026,006	3,344,139	30.7	54.4	10.8	4.1
2012	173	165	100	1,022,729	3,078,219	33.2	52.0	10.6	4.2

Figure 3: Michigan Public Service Commission CLEC Survey Results

For the last six years, competitive telecommunications companies reliant on the incumbent's network to provide service, whether it be via resale, wholesale or UNE-L provisioning, have increasingly focused on the business side of the telecommunications marketplace as is represented in Figure 4. From the total lines provided in conjunction with the incumbent's network in 2012, over 83 percent

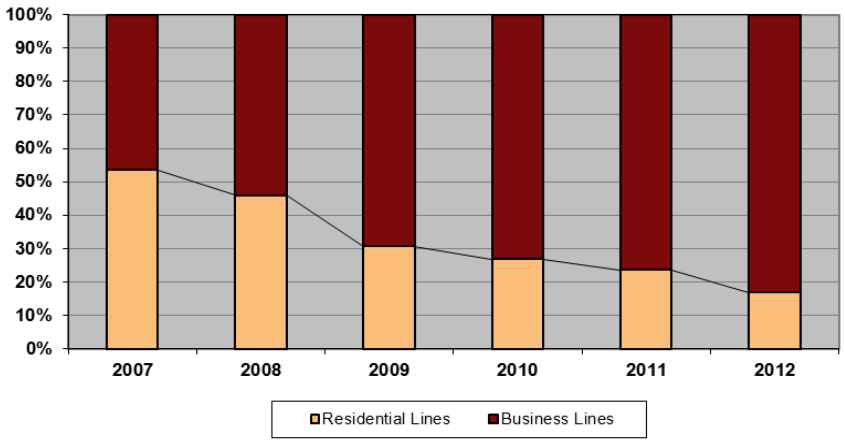

Figure 4: Competitive Residential and Business lines via ILEC.

are business lines and the remaining 17 percent are residential lines. In contrast, the lines provisioned over the CLECs' own networks represent the opposite combination of residential and business lines. While there was a slight shift toward business lines as a percentage of lines provided via CLEC facilities, the competitive lines provisioned over their own networks without relying on the incumbent's infrastructure continue to be more predominant in the residential telecommunications marketplace in Michigan, as is shown in Figure 5. In 2009, CLECs as a total served more business lines than residential lines for the first time since the year 2000. The increase in business lines trend began in 2003 and it was more evident in the lines provisioned via the incumbents' network where two-thirds of the lines were business lines. The residential lines provisioned over the CLECs' own facilities accounted for almost three-fourths of the total facilities-based lines.

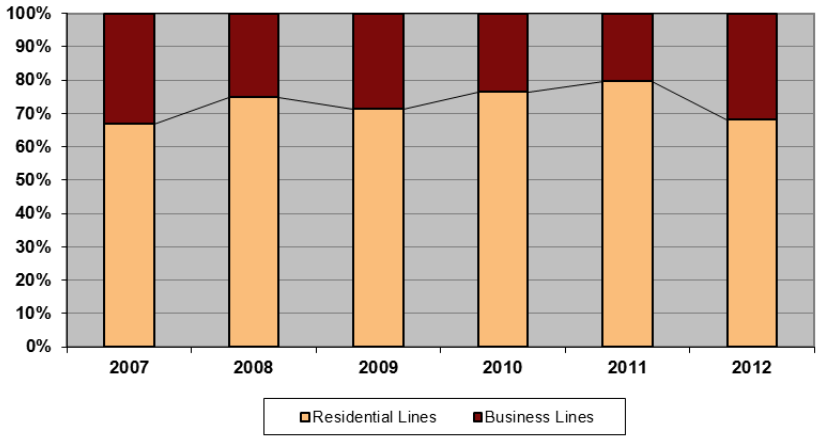

Figure 5: Competitive Residential and Business lines.

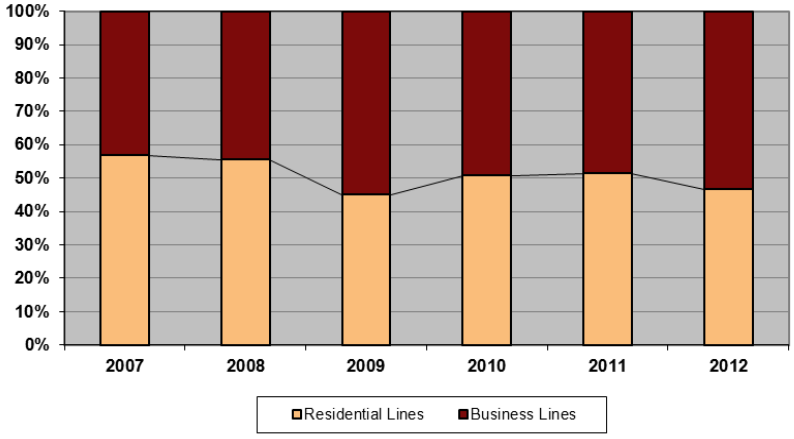

Figure 6: Total Residential and Business Competitive Lines.

In 2010 and 2011 the percentage of residential competitive lines was slightly higher than the percentage of business competitive lines. However, as shown in Figure 6, in 2012 this has reversed and

the percentage of business competitive lines is now slightly higher.

In 2012, the number of CLEC lines provided using their own facilities remained about the same as in 2011, while the lines provisioned over the incumbents' network slightly decreased. The increase in competitive lines provisioned over CLECs' own facilities began in 2005 and this trend has continued through 2011, while remaining steady in 2012, as show in Figure 7.

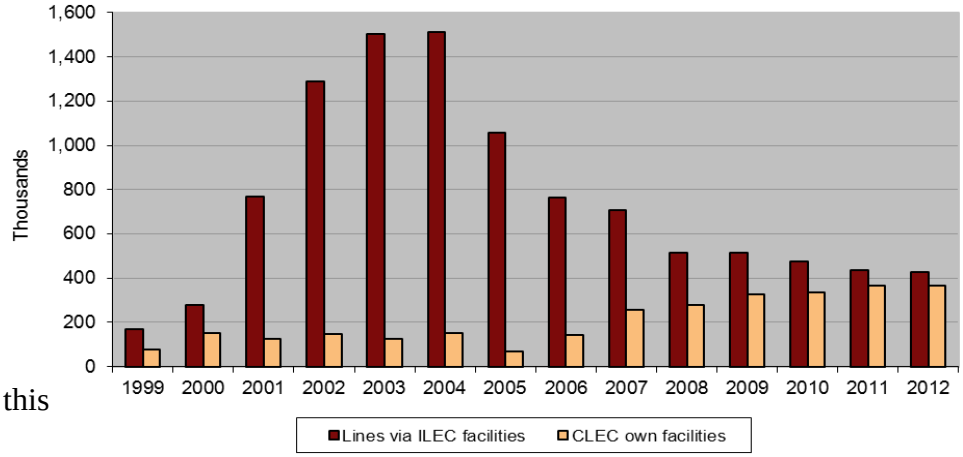

Figure 7: Competitive Lines

The existence of this type of provisioned lines is an indication that the provider has the intent of remaining in the marketplace for the long term as the initial investment to provision those lines is higher than the investment necessary to provision those same lines utilizing the incumbent's network. This investment by the CLECs represents important economic activity that benefits Michigan and points toward further stabilization of Michigan's competitive telecommunications market.

The evolution of Michigan lines in the last 14 years is represented in Figure 8. The chart indicates growth for the CLECs during the first six years while at the same time declining market share for AT&T Michigan. This inverse correlation occurred while UNE-P, an economical method of provisioning lines to customers, was available. However, for 2005, 2006 and 2008, CLEC lines decreased while market share for AT&T Michigan grew slightly. The decrease of competitive lines in 2008 was not anticipated to continue long term; hence in 2009 and again in 2010, a recovery of those competitive lines was experienced. In 2011 and 2012, competitive

lines once again experienced a slight decrease; however the CLEC overall market share increased for the fourth straight year. The Commission is encouraged that the facilities-based competition in Michigan will continue to maintain a stable competitive environment.

As reflected in Figure 8, over the last six years, Frontier and AT&T Michigan have experienced a steady decrease in their reported lines while the small ILECs experienced a moderate decrease of lines over the same period.

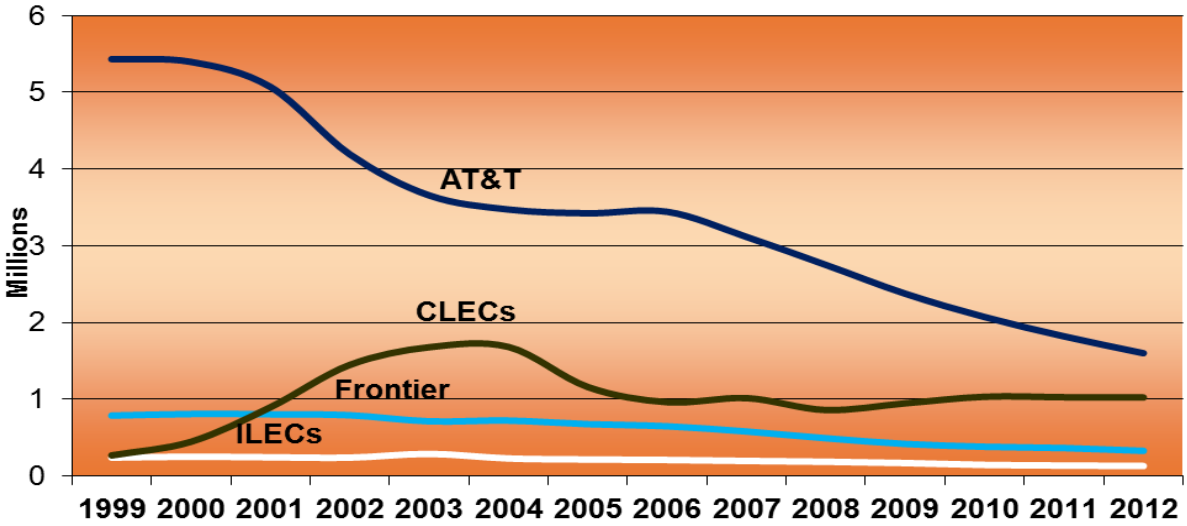

Figure 8: Michigan Lines Evolution

The total number of customers served via wireline technology continues to decrease following a trend that began in 2002. Historically, providers have asserted that the decline in total wirelines was due to the increase in mobile wireless users[11] and the use of other types of telephony including VoIP, as well as a movement away from using dial-up Internet to high-speed connections. The Commission believes there is merit in this argument, however, it is worth noting that many telecommunications companies are offering one or more of these additional services (wireless, VoIP, Internet connections) provided through their own company or an affiliate which does not necessarily report to the Commission. As such, it is likely that some of

[11] For example, see the Mobile Wireless Market section of this report, which discusses the increasing number of wireless only households.

the lost wireline customers represent customers migrating to VoIP and/or wireless with the same provider and not actually customers lost by that provider.

Mobile Wireless (Voice)

Pursuant to the MTA, the Commission does not regulate mobile wireless providers. Consequently, in preparing this report the Commission must rely on wireless data obtained from other sources. The FCC prepares a semiannual Local Telephone Competition Report that includes data on the number of mobile wireless telephone providers and subscribers in Michigan. The data from the FCC's most recently released report, ***Local Telephone Competition: Status as of December 31, 2011***, is current through the end of 2011 and shows that Michigan has continued to see an increasing number of mobile wireless subscriptions, with a small decrease between June and December of 2011 (see Figure 9). At this time it is not known whether this is the beginning of a longer trend but given the prevalence of mobile wireless service it is likely to only be a short term drop. According to this FCC data, there were approximately 9,253,000 mobile wireless telephone subscribers in Michigan as of December 31, 2011. Despite the slight decrease from June to December noted above, Michigan continues to experience steady growth year over year in the number of mobile wireless subscriptions, though that growth is no longer at the peak levels Michigan experienced from 2000 through December 2005 (see Figure 10).

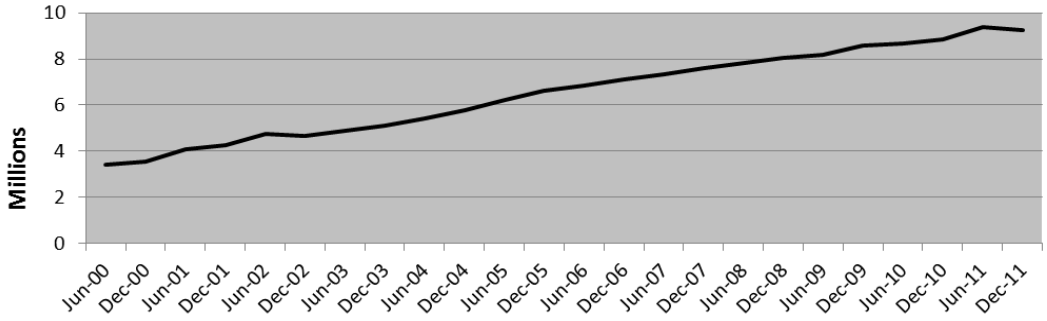

Figure 9: Number of Mobile Wireless Subscriptions in Michigan. FCC Data

The Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS), released its most recent data on wireless substitution in the report *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January – June 2012.* The NCHS data shows that 35.8 percent of American households, representing approximately 80 million adults and 30 million children, had at least one wireless phone but no landline telephone during the first half of 2012. The report notes the continuing trend of increasing numbers of wireless-only households nationwide, however, it is noted that the increase during the six months reported on was the smallest for any six month period dating back to 2008. The report also provides evidence that younger adults are much more likely to "cut the cord" than older adults. For example, for the January – June 2012 period, the NCHS reports that more than half (60.1 percent) of U.S. adults aged 25-29 lived in a wireless-only household while only 10.5 percent of adults aged 65 and older did.

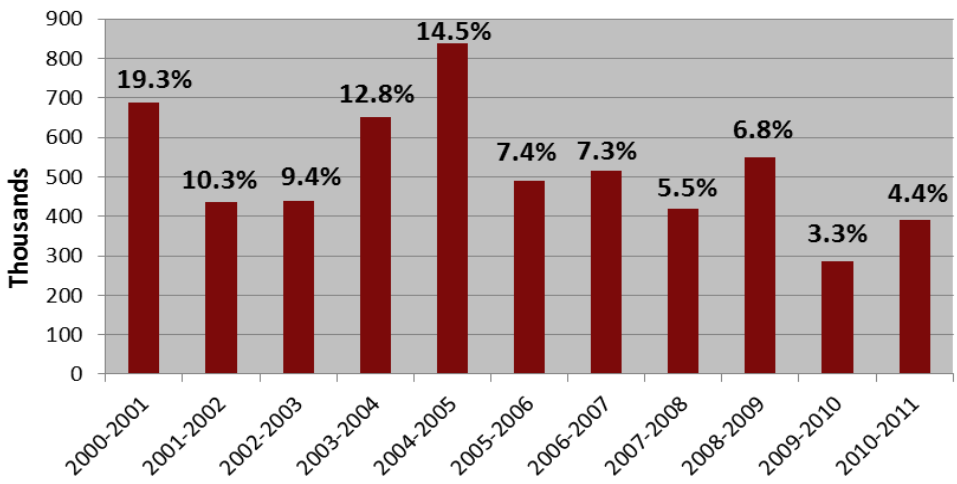

Figure 10: Change in Mobile Wireless Subscriptions in Michigan. FCC Data

While the Commission does not yet consider mobile wireless to be a complete functional equivalent to wireline service for all customers due to issues related to coverage, ability for 911 operators to locate callers, and communications during power outages, it is the case that mobile wireless is becoming a truly competitive alternative to wireline service for an increasing number of Michigan customers. The NCHS also released modeled state level estimates on the

distribution of household telephone status of adults and children in its October, 2012 report *Wireless Substitution: State-Level Estimates from the National Health Interview Survey, 2010-2011*. The National Center for Health Statistics' modeled estimates show that for 2011, 35.8 percent of adults and 43.1percent of children in Michigan were living in a household wireless phone service only. The report also shows that for 2011, 51.4 percent of adults were living in a wireless only or wireless mostly household; 23.8 percent lived in a household where wireline and wireless are used equally; and 22.8 percent lived in a household that is landline only or landline mostly (see Figure 11).

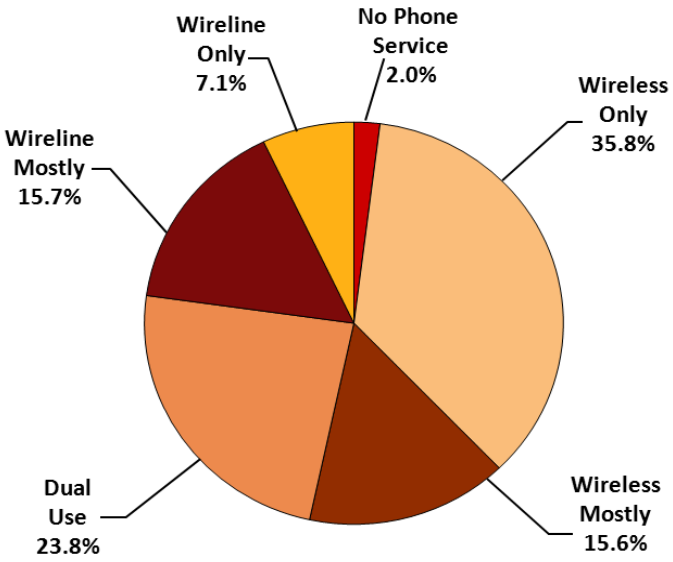

Figure 11: Estimates of the Percent Distribution of Household Telephone Status for Adults in Michigan July 2010-June 2011. National Center for Health Statistics Data.

The FCC released its Sixteenth Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Service (CMRS Report) on March 21, 2013. The FCC information in this report is at the level of Economic Areas (EA), which are regional areas defined by the U.S. Department of Commerce. Due to the large geographic area encompassed by each EA, the FCC's data only allows for generalized conclusions about wireless service in Michigan.[12] According to the FCC data, wireless penetration rates have continued to increase in 2011 for four of the six EAs containing Michigan counties. The report did not contain penetration data for the other two EAs in order to protect

[12] For example, some of the areas include parts of other states and/or combine urban and rural areas.

firm confidentiality. This increase in wireless penetration represents additional wireless subscriptions in both the urban and rural areas of the state.

Michigan counties make up all or part of six Economic Areas. Below is a list of which counties are contained in each Economic Area that covers Michigan:

EA 57

Alcona, Iosco, Ogemaw, Gladwin, Arenac, Clare, Isabella, Midland, Bay, Saginaw, Huron, Gratiot, Tuscola, Sanilac, Clinton, Shiawassee, Genesee, Lapeer, St. Clair, Eaton, Ingham, Livingston, Oakland, Macomb, Jackson, Washtenaw, Wayne, Hillsdale, Lenawee, Monroe

EA 58

Chippewa, Luce, Mackinac, Emmet, Charlevoix, Cheboygan, Presque Isle, Montmorency, Alpena, Oscoda, Crawford, Roscommon, Otsego

EA 59

Keweenaw, Houghton, Baraga, Ontonagon, Gogebic, Iron, Marquette, Dickinson, Menominee, Delta, Alger, Schoolcraft . . . also includes portions of Wisconsin

EA 61

Leelanau, Antrim, Kalkaska, Grand Traverse, Benzie, Manistee, Wexford, Missaukee, Mason, Lake, Osceola

EA 62

Oceana, Newaygo, Mecosta, Montcalm, Muskegon, Ottawa, Kent, Ionia, Allegan, Barry, Van Buren, Kalamazoo, Calhoun, Branch

EA 65

Berrien, Cass, St. Joseph . . . also includes portions of Indiana

The penetration rate for each of these six Economic Areas is listed in Figure 12 below.

Figure 12: Wireless Penetration Rate

Source: FCC Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth, Sixteenth CMRS Reports

Economic Area	2005 (based on US Census 2000 population data)	2006 (based on US Census 2006 population estimates)	2007 (based on US Census 2007 population estimates)	2008 (based on US Census 2008 population estimates)	2009 (based on US Census 2009 population estimates)	2010 (based on US Census 2010 population data)	2011 (based on US Census 2010 population data)
57	85%	96%	100%	105%	114%	119%	121%
58	41%	56%	65%	*	78%	*	*
59	63%	72%	85%	92%	82%	87%	92%
61	58%	66%	71%	77%	83%	88%	*
62	63%	68%	73%	78%	84%	85%	87%
65	59%	67%	74%	78%	81%	84%	88%
Nationwide	71%	80%	86%	90%	93%	97%	102%

* Data withheld to maintain firm confidentiality.

As noted in previous years' reports, wireless penetration rate is not evidence of coverage in all areas. The FCC's CMRS Reports include updated maps showing wireless coverage for 2012. Based on these maps, it appears that most areas in the Lower Peninsula have several options available for customers to choose their wireless provider while wireless competition is not as prevalent in the Upper Peninsula and some northern areas of the Lower Peninsula. However, the Commission finds that the best indicators of wireless coverage are the interactive provider coverage maps available on mobile wireless providers' websites. Many of these maps can show detail of coverage at the level of individual street addresses and are updated frequently as providers roll out additional towers or new technologies.

In addition to wireless voice service, mobile wireless can provide customers with other services including text messaging, multimedia messaging, email, Web browsing, and numerous other applications. Broadband service via mobile wireless is discussed in more detail in the Broadband section of this report. Data on mobile wireless consistently show that this technology continues to be a driving force in the telecommunications marketplace. While state-level data is

difficult to obtain, the Commission will continue to the best of its ability to monitor the impact of mobile wireless voice service on telecommunications services in Michigan.

Voice over Internet Protocol

VoIP is both a technology and a service. There are two main types of VoIP service: interconnected VoIP technology, which allows a customer to make and receive calls from the public switched telephone network (PSTN); and non-interconnected VoIP technology in which calls do not use the PSTN. Aside from companies that offer only VoIP service, VoIP service is also often available from cable companies, some traditional telephone companies, and providers of broadband Internet services. Marketing literature available from a cross-section of these different types of providers shows that VoIP service offerings include residential and business local and long distance calling, as well as features such as international calling, voicemail, call forwarding, etc. However, while VoIP service is in many ways similar to traditional wireline service, two significant differences are important to highlight. VoIP customers may need to provide location or other information to their VoIP providers, and update this information if they change locations, for their VoIP 911 service to function properly.[13] Additionally, VoIP services typically entail the use of equipment that requires electricity. Therefore, VoIP service may not function during an electrical outage while traditional wireline telephone service typically would. Some VoIP providers include a backup battery that would allow service to continue to operate for several hours during electrical outages, however during a longer term outage service could still be disrupted. Even though the MTA categorizes VoIP as an unregulated service, the MTA does include a registration requirement for providers of VoIP services. The Commission

[13] The FCC has a Consumer Advisory, available at http://www.fcc.gov/cgb/consumerfacts/voip911.pdf, that explains important information regarding VoIP service and access to 911 emergency services.

maintains an online registration system, the *Intrastate Telecommunications Service Provider Registry,* to help providers meet this requirement.

The Commission's survey collects information on the number of VoIP lines provisioned by licensed CLECs and the data shows an increasing use of this technology as a method for serving customers. Providers reporting VoIP lines on the CLEC survey reported 211,851 VoIP lines for 2012, representing an increase over the lines reported in 2011. However, as noted in past reports, the Commission is aware of certain companies (some cable companies, un-licensed subsidiaries of licensed CLECs, other types of providers) that offer VoIP but do not report these lines on the Commission's CLEC survey. Previously, the Commission did not have a method to determine the number of these lines, but in recent years has estimated the number to be in the several hundred thousands.

The FCC, however, has expanded its reporting requirements and began mandating reporting by interconnected VoIP providers in December 2008. The greater response of providers offering VoIP on the Commission's CLEC survey may be, in part, due to the fact that the FCC has required providers to report the number of VoIP lines they are provisioning. The FCC data, available in the *Local Telephone Competition* report, confirms our estimations in previous years that the number of VoIP lines in Michigan was significant. In fact, the FCC reports that as of December 31, 2011, there were 98 providers of interconnected VoIP serving over 1.3 million interconnected VoIP lines in Michigan. Interconnected VoIP is increasingly becoming a competitive option for some customers (with the caveats about 911 service and service during electricity outages), not just in Michigan, but nationwide. The FCC shows that nationwide the number of interconnected VoIP service subscriptions has increased by

approximately 69 percent from December 2008 to December 2011, while traditional retail switched access lines decreased 24 percent.

There are many issues of interest to the Commission related to VoIP, including federal universal service funding, 911 functionality and funding, and compensation for traffic exchange between providers. These topics are under the primary jurisdiction of the FCC and debate on these topics continues at the federal level. Some of these issues are addressed in the FCC's universal service and intercarrier compensation reform order.[14] However, that order is currently the subject of multiple legal challenges and the end result as it relates to VoIP service is not yet known. More on universal service and intercarrier compensation reform can be found later in this report. The Commission continues to follow this and other developments at the federal level and monitor any affects of federal policy regarding VoIP service on telecommunications competition in Michigan.

Broadband

The Commission monitors the development of broadband technologies, but does not have regulatory authority over these types of services. As such, the Commission must rely on external data sources when analyzing the state of broadband in Michigan. As reported in previous years, the FCC has made significant revisions to its process for collection of broadband data. These changes include expanding the number of broadband reporting speed tiers, requiring providers to report numbers of broadband subscribers by Census Tract, further broken down by speed tier and technology type, and specifying additional requirements to improve the accuracy of information collected regarding mobile wireless broadband deployment. The FCC has begun reporting the results of the enhanced data collection efforts in its Internet Access Services Reports. These

[14] http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0206/FCC-11-161A1.pdf

reports replace the *High-speed Services for Internet Access* reports that covered 2000-2008 data. The most recent of these reports, *Internet Access Services: Status as of December 31, 2011* compiles broadband data submitted on the FCC's Form 477 through the end of 2011.

According to the FCC's *Internet Access Services Report*, Michigan now ranks 10th in the country in the number of Internet access lines offering at least 200kbps in at least one direction, with 100 different providers reporting 6,705,000 lines as of December 31, 2011 (see figure 13).[15] Residential connections represent 75 percent of the total connections with speeds of at least 200kbps in one direction in Michigan, with business connections comprising the remaining 25 percent. The FCC estimates that DSL service is available to 80 percent of Michigan residences where ILECs offer local telephone service and that cable modem service is available to 98 percent of residences where cable providers offer cable television service. This compares with nationwide percentages for DSL and cable broadband availability of 84 percent and 97 percent, respectively.

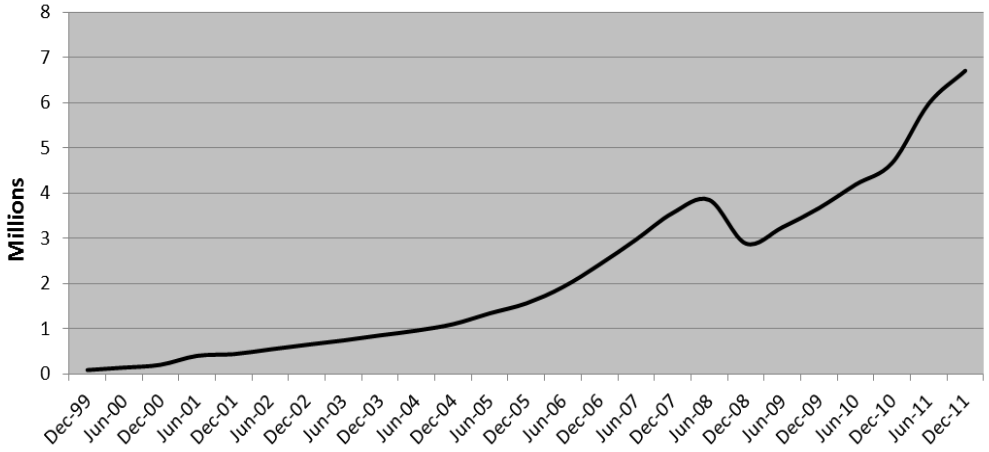

Figure 13: Number of High-speed Internet Lines in Michigan. (FCC Data)

[15] As explained in previous years, with the modifications to the types of data collected with Form 477, the data shows a one-time decrease (2008-2009) in the reported number of high-speed Internet access service connections. In previous reports, the FCC counted a device that was capable of sending or receiving data as a mobile wireless high-speed Internet connection. However, this did not take into account that some customers with these types of devices do not subscribe to mobile wireless broadband service. The revised Form 477 considers a person to have a mobile wireless broadband connection if they have a capable device and subscribe to a plan that allows for transferring data to and from Internet sites and excludes subscribers with plans that only allow for content that is for viewing on a mobile device such as text messaging.

Figure 14 represents the growth in Internet access lines offering speeds of at least 200kbps in at least one direction by technology type for the seven reporting periods since the FCC changed its data collection methodology. It should be noted that the FCC did not include some data on other wireline and satellite connections in its June and December 2011 reports in order to protect confidentiality. As the figure shows, each technology platform for which data was available continues to see growth in the number of lines served, though the most dramatic increase is in the number of high-speed Internet access lines provisioned with mobile wireless, the number of which increased by over 566% between December 2008 and December 2011.

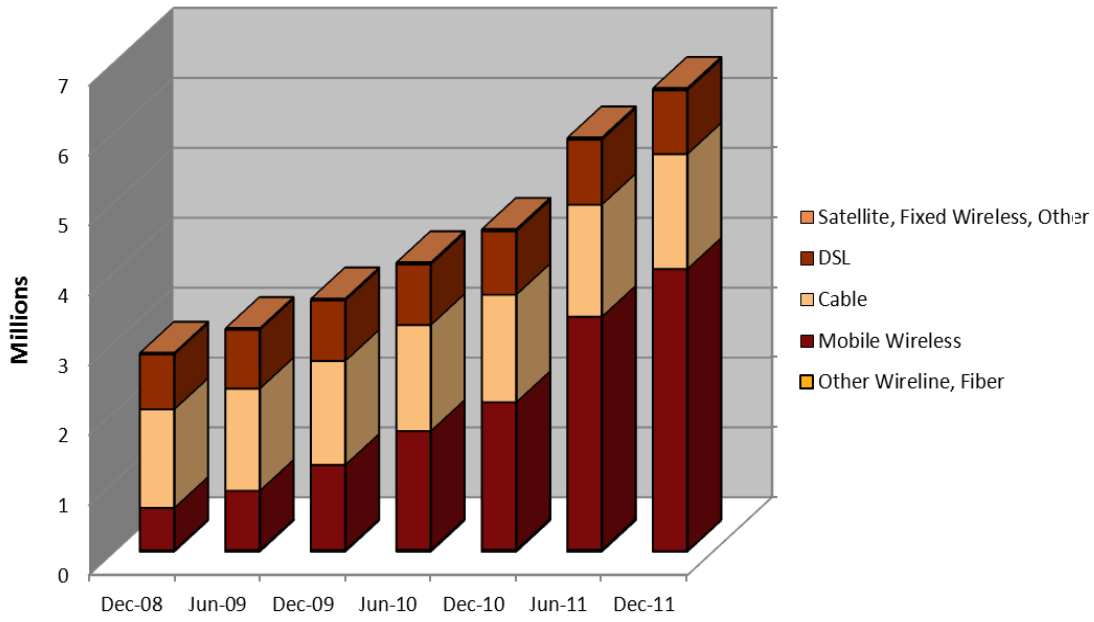

Figure 14: Number of Internet Access Lines at least 200kbps in one by Technology in Michigan (FCC Data).

Just as consumers are continuing to choose to use mobile wireless voice to complement or replace traditional wireline voice, expanded geographic coverage for data as well as the continued popularity of smart phones and wireless cards and mobile hotspots for computers allows consumers to supplement or replace a wired Internet connection with mobile wireless. Mobile wireless connections continued to make up the largest portion of the total lines offering speeds of at least 200kbps in at least one direction in Michigan, representing 60 percent of the total as of December 31, 2011. Cable represented 25 percent, and DSL, 14 percent, making up

most of the remainder. The percentage of lines offering 200+kbps in at least one direction by technology is shown in Figure 15. However, for connections with greater speeds, mobile wireless loses the dominant position to cable; the FCC reports that as of December 31, 2011, 50 percent of Michigan connections with speeds of at least 3mbps downstream/768kbps upstream are cable connections. The number of mobile wireless connections was not included in the December 2011 report in order to protect confidentiality. However, the June 2011 report shows that as of June 30, 2011 mobile wireless connections accounted for 30 percent of 3 mbps or greater connections. This is up from 19 percent at the end of 2010, which seems to indicate that in addition to the dramatic growth in the number of mobile wireless broadband connections, wireless carriers are also increasing the speed of their wireless data networks.

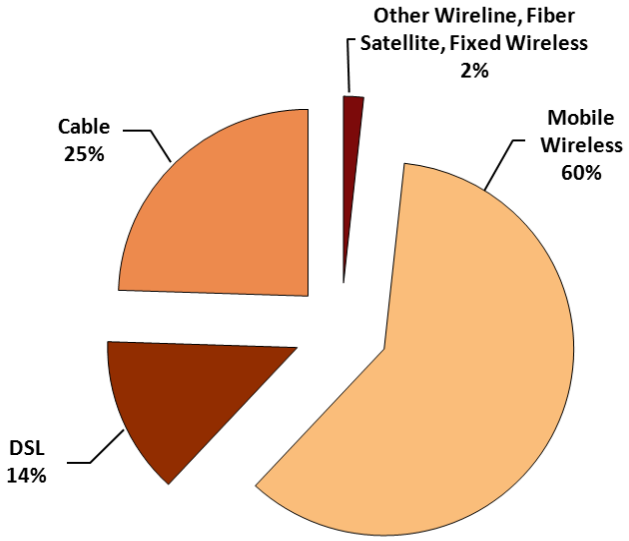

Figure 15: Percent of Michigan Internet Access Lines at Least 200kbps In One Direction by Technology (FCC Data)

The growing number of Internet access connections in Michigan shows that Michigan citizens and businesses increasingly value broadband service. Understanding why individuals and businesses do or do not adopt broadband is an important factor in increasing broadband adoption rates and ensuring that this vital technology is accessible, not just physically available, to all. There are many factors that can act as a barrier to adoption, even where service is available, such as price, lack of a device with which to access the Internet, privacy or security

concerns, or a lack of interest/understanding what broadband access to the Internet offers. Determining the barriers to adoption and recommending solutions to overcome these challenges is a goal of the Commission's Connect Michigan project, which is discussed in more detail later in this report. There continues to be vibrant growth in the broadband sector of the telecommunications market, and the Commission will continue to monitor the developments in this area, as well as the effects of additional broadband availability and adoption on wireline telephone competition in Michigan.

Federal Universal Service and Intercarrier Compensation Reform

As was mentioned in the previous year's report, on February 8, 2011 the FCC adopted a Notice of Proposed Rulemaking seeking comment on significant reforms to both the federal universal service fund (USF) and the intercarrier compensation (ICC) system. Since that time, the FCC has taken substantial steps forward in reforming USF and ICC. The most recent FCC rules and regulations were entered into the Federal Register on November 29, 2011[16]. The effective date for these new rules was December 29, 2011.

The goals of the comprehensive reform are stated in the Federal Register, and they are as follows: 1) Preserve and advance universal availability of voice service; 2) ensure universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions; 3) ensure universal availability of modern networks capable of providing advanced mobile voice and broadband service; 4) ensure that rates for broadband services and rates for voice services are reasonably comparable in all regions of the nation; and 5) minimize the universal service contribution burden on consumers and business.

[16] http://www.gpo.gov/fdsys/pkg/FR-2011-11-29/pdf/2011-30378.pdf

The FCC's reform order is complex and comprehensive and there have been several orders to clarify and reconsider portions of the reform order. At the present time, there have been several legal challenges made to the order. The challenges have been consolidated in Docket No. 11-9900 and are currently being handled by the United States Court of Appeals for the Tenth Circuit. Because the FCC and the states are still implementing the changes pursuant to this order, it is premature to have a true understanding of the effects that this order will have on telecommunications competition. As always, the Commission will continue to monitor and participate in this and any other FCC proceedings of interest to Michigan.

Broadband Mapping and Planning – Connect Michigan

The National Telecommunications and Information Administration awarded a grant to Connect Michigan for broadband mapping and planning initiatives over a five-year period. Connect Michigan is a public-private partnership between the Commission and Connected Nation, a national leader in broadband mapping, to expand broadband availability, adoption and use throughout Michigan. Connect Michigan continues to update Michigan's broadband availability maps, including the interactive My Connect View.[17] The maps allow users to see broadband availability information for the entire state, including served and unserved areas by broadband technology. With the interactive My Connect View, users can also input an address and see which provider(s) are offering service in that location. My Connect View also includes updated demographic information, including school district and legislative district boundaries, making it a useful tool for a variety of policy makers and other entities.

Connect Michigan is also currently working on a number of broadband planning projects through the Connected certified community program, a national certification program through

[17] http://www.connectmi.org/

Connected Nation. Connect Michigan field representatives are currently working directly with 25 communities across the state to assess the broadband needs and resources available at the community level. The community teams work with Connect Michigan to design broadband plans to address any identified gaps in broadband availability, adoption or use. Communities that score high enough on the assessment are eligible to become Connected certified. Michigan's own Charlevoix County was the first community in the nation to receive Connected certified status. As of today three Michigan communities are Connected certified, with a fourth to be certified later in June 2013. The grant funding for the community engagement portion to the Connect Michigan program runs out in the fall of 2013, and the grant funding for the mapping and research portions of the program expires at the end of 2014. Because Connect Michigan has had so much success with the community engagement aspects of the program, and because an interactive broadband availability map is such a useful tool for citizens and policymakers in the state, the Commission is currently exploring possible sources of funding to continue the Connect Michigan program after the expiration of the federal grant. Additional information and success stories related to Connect Michigan and the Connected certified communities are available on the Connect Michigan website.

Mergers and Acquisitions

The Commission continues to monitor consolidations in the telecommunications sector with relevance to customers in Michigan.

The Commission received several notifications in 2012 from Zayo Group, LLC regarding transfers of control or acquisitions involving 360 Networks, AboveNet Communications, Arialink Telecom, and First Communications to Zayo Group.

As a result of an ongoing effort by AT&T, Inc. to simplify the corporate structures of its subsidiary companies, the Commission issued two new licenses in 2012 to AT&T Corp. and Teleport Communications America, LLC. These companies assumed the assets and customers of AT&T Communications of Michigan, Inc. and TCG Detroit with no changes in the rates, terms and conditions of service.

Also in 2012, Deutsche Telekom, the owner of T-Mobile USA, announced its intention to acquire fellow wireless carrier MetroPCS. The acquisition was approved by the FCC in March 2013 and was completed in May 2013.

Conclusion

In 2012, Michigan's competitive wireline market share increased to 33.2 percent, due, in part, to the decrease in lines reported by the incumbent providers. While the CLECs also reported a decrease in line counts, that decrease was below 0.5 percent, well below the greater than 11 percent decrease reported by the ILECs. However, as noted in this report, some of the lost wireline customers likely represent customers migrating to VoIP and/or wireless with the same provider and not actually customers lost by the provider. Similar to last year, facilities-based competition has remained steady through investment by the CLECs in developing their networks which is a positive economic sign.

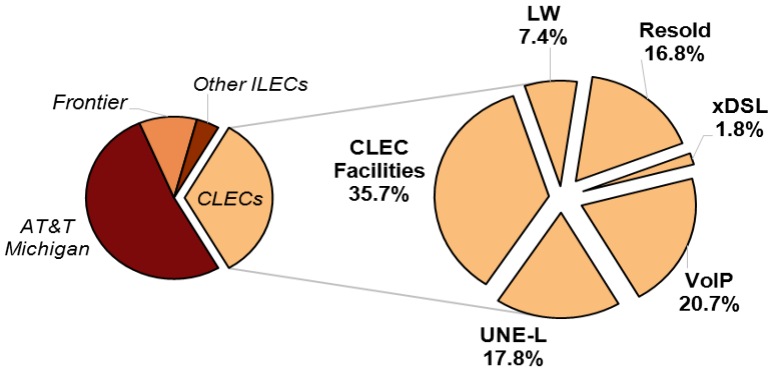

Figure 16: Michigan competitive landscape in 2012.

The chart in Figure 16 depicts the competitive landscape in Michigan for 2012. Services provided over

CLEC facilities accounts for 35.7 percent of the provisioning, while VoIP accounts for just over 20 percent. The remainder is accounted for by provisioning using ILEC facilities through UNE-L and resale methods.

The competitive landscape in Michigan has significantly changed over the last several years, due largely to technological advancements. There is currently a national trend that telecommunication services provided over a traditional wireline is decreasing as VoIP and wireless become more prevalent. However, there still exists a fairly large number of consumers in Michigan using traditional wireline technology today which indicates a continued need and desire for wireline services. The Commission strives to strike a balance to position Michigan to reap the benefits of new technologies while at the same time preserving a quality wireline system for those for whom newer technologies are currently unavailable or unaffordable.

The Commission continues to carry out its duties under the MTA as well as monitoring current developments on the national level and keeping abreast of the ever changing technological developments in the industry to ensure that Michigan consumers have telecommunication service choices available to them. As noted in the beginning of this report, due to changes in the MTA in June of 2011, this is the last report on the Status of Competition in Telecommunications Service that will be submitted by the Commission to the Governor and Legislature. The Commission will continue to monitor these issues and should any issue arise that may warrant action, the Commission will apprise the Governor and the Legislature.