



Telecom Competition in Ohio

Ohio Telecom Association

April 2009

2009 Report on Competition

Ohio Telecom Association

Telecommunications has become an extremely broad term, encompassing voice, video and data communications from hundreds of companies, using hundreds of different technologies.

The local telephone network is the backbone. There is a secure phone line to practically every home and business in Ohio. More than 95% of these lines have already been upgraded to provide broadband. Without the local telephone network, the Internet could not operate, wireless calls could not be completed and data could not be transmitted or received.

For the past three years, the Ohio Telecom Association has been tracking the impact of competition on local phone companies. The 2009 report concludes that telecommunications in Ohio continues to diversify and grow. Following are key findings:

- The 42 Incumbent Local Exchange Carriers (ILECs) in Ohio have lost 1.2 million lines over the past three years – and 3 million lines (43%) since peaking in 2001 – to competition and alternative technologies. In 2008, ILECs lost 500,000 lines, or 11%.
- Telecommunications is a \$15.4 billion annual industry in Ohio.
- The number of broadband customers has more than doubled over the last three years, increasing from 1.9 million in 2005 to 5 million in 2008.
- Approximately 95% of homes in Ohio have access to broadband service, available from 88 competitors across the state, according to Connect Ohio and the FCC.
- There are now 9.1 million cell phone users in Ohio, up 21% since 2005. This, the biggest sector of the telecom market, is served by 11 competitors.

- The average Ohioan reports paying \$39 per month for local phone service and calling features. Although basic rates vary across the state, 25% of the total cost is for taxes, surcharges and mandated fees.
- The 54 Competitive Local Exchange Carriers in Ohio have acquired 20% of the market-share for local telephone service, up from 15% in 2005.
- Local phone service is also offered by cable television companies, such as Time Warner, using a technology known as Voice over Internet Protocol (VoIP). These companies are *not* classified as ILECs or CLECs and are largely not regulated at any level – federal or state. There are an estimated 20 million “cable telephone” customers nationwide.

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The Telecom Marketplace in Ohio

There are hundreds of telecom providers across Ohio vying for local, long distance, wireless, video and Internet customers. Advances in technology have made it possible for these providers to expand beyond their traditional services and into each other's territories. Local telephone companies now transmit television channels over phone lines to compete with cable and satellite. Cable TV companies now provide phone service over their television wires. High-speed Internet is delivered over satellite, cellular, phone, cable and fixed wireless networks.

In communicating with friends, family and business associates, Ohioans can choose from dozens of providers and technologies, including:

- Landline
- Cable
- Web Cams
- Email
- Cellular
- VoIP
- Video calling
- Instant Messaging
- Satellite
- Fixed Wireless
- Texting

The telecom marketplace in Ohio is crowded, with as many as 826 companies selling a range of voice and data services to Ohio's 11.5 million residents and 900,000 businesses.

Table 1 – Telecom Competitors in Ohio

| Type of Carrier | Ohio | U.S. ¹ |
|---------------------|------------------|-------------------|
| ILEC | 42 | 1,311 |
| CLEC | 54 | 1,270 |
| Long Distance | 364 ² | 364 |
| Wireless (Cellular) | 11 | 470 |
| Subscription Video | 21 | 1,212 |
| Broadband | 88 | 1,393 |
| End-user VoIP | 246 ³ | 246 |
| TOTAL | 826 | 6,266 |

¹ Reporting to the FCC.

² Local telcos must provide equal access to all Long Distance providers. It is unknown how many long distance companies market their services in Ohio.

³ Because they require no local facilities, VoIP providers may sell service to any location. It is unknown how many VoIP providers market their services in Ohio.

Telecom Revenues

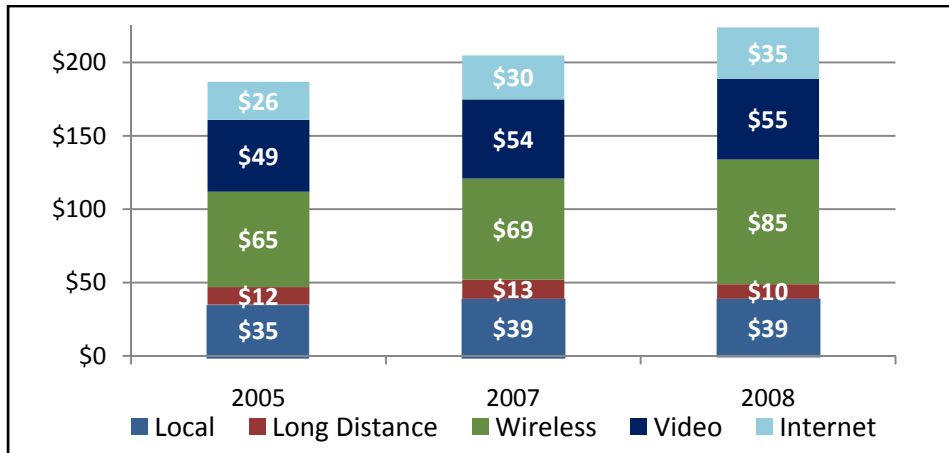
Telecommunications in Ohio is now a **\$15.4 billion** annual industry with wireless leading the pack among all providers. Internet spending has also increased, due to the **3.1 million new broadband customers added over the past three years**. Revenues from local phone service have remained flat, while long distance revenues continue to decline.

Table 2 – Telecom Revenues in Ohio (In Billions)⁴

| Service | 2005 | 2007 | 2008 |
|------------------------|---------------|---------------|---------------|
| Local (ILEC and CLEC) | \$3.2 | \$3.3 | \$3.2 |
| Long Distance | \$2.5 | \$2.5 | \$2.2 |
| Wireless (Cellular) | \$3.3 | \$4.2 | \$4.4 |
| Subscription Video | \$2.1 | \$2.4 | \$2.8 |
| Internet and Broadband | \$1.5 | \$2.5 | \$2.8 |
| TOTAL | \$12.6 | \$14.9 | \$15.4 |

Year after year, customers are spending more on telecommunications. The **average monthly bill for those with all services is now approximately \$220**. Cellular and subscription video account for the majority of monthly spending. The average consumer’s cell phone bill is more than local and long distance combined and has increased significantly since 2005, due to the popularity of wireless data services, such as text messaging and mobile Internet access.

Chart 1 – Customer Spending

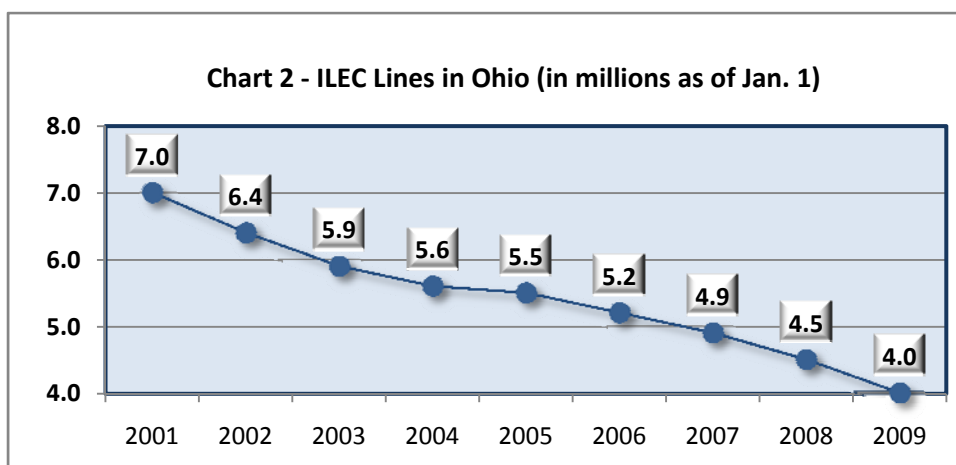


⁴ Voice revenues (ILEC, CLEC, Long Distance and wireless) are reported annually to the FCC. Revenues for Video and Internet / Broadband are based on adoption rates times average customer spending.

Local Telephone Companies (ILECs)

Telephone companies, also known as Incumbent Local Exchange Carriers (ILECs) or telcos, provide local phone service to defined geographic areas. In Ohio, there are **42 ILECs**. They are regulated by the Federal Communications Commission (FCC) and the Public Utilities Commission of Ohio (PUCO).

Traditional home telephone service is in decline, rapidly being replaced by wireless, VoIP and Internet communications. Since peaking in 2001, **Ohio ILECs have lost 3 million lines**.



Ohio ILECs were formed long before the Internet, wireless and video revolutions. Many have been around for more than 100 years. The larger phone companies are familiar names and provide phone service to major cities.

Large ILECs in Ohio

| | | |
|-----------------|------------|------------|
| AT&T Ohio | CenturyTel | Verizon |
| Cincinnati Bell | Embarq | Windstream |

The **35 small ILECs serve almost 2.5% of all of Ohio’s access lines**, primarily in rural areas and small towns. Also known as the “independents,” these ILECs range in size from about more than 300 to 30,000 access lines.

According to a recent study by the Organization for the Promotion and Advancement of Small Telecommunications Companies, (OPASTCO), small ILECs are losing lines at a rate of 6% per year. Continuing at this rate, **small ILECs will lose an additional 18% of their lines by 2011**.

ILEC Quick Facts

There are 42 ILECs in Ohio: 7 large ILECs and 35 small independents.

ILECs generate \$3.2 billion in annual revenues.

Customers spend \$39 per month for local phone service – 25% of which is for taxes, surcharges and mandated fees.

ILECs have lost 3 million access lines (43%) over the past eight years.

ILECs are regulated by the Public Utilities Commission of Ohio and the Federal Communications Commission.

70% of ILECs are in the subscription video business.

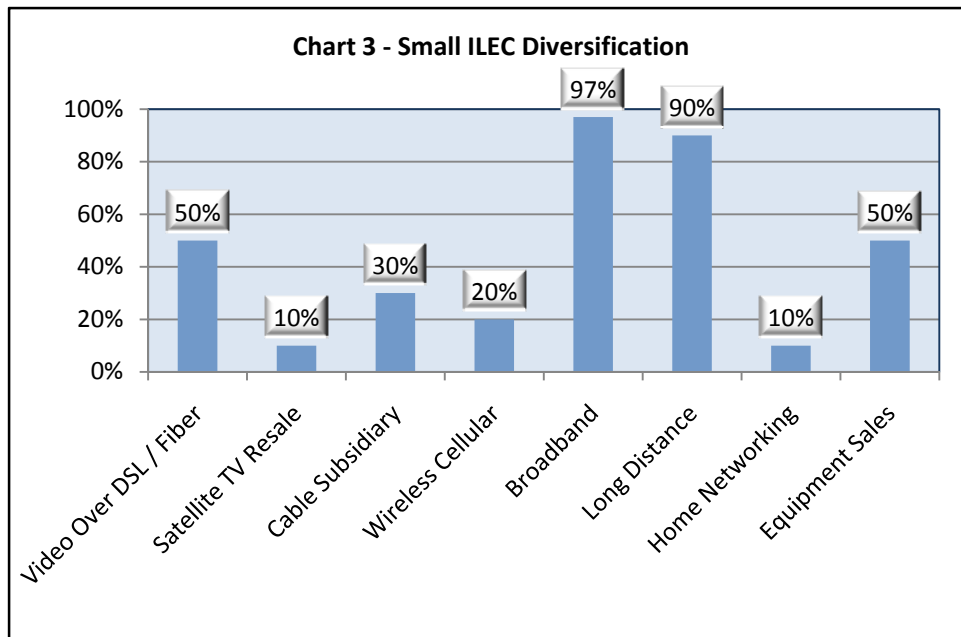
Rural ILECs are losing an average of 6% of lines per year.

Small ILECs in Ohio

| | | |
|--------------------|----------------------------|------------------------|
| Arcadia (TDS) | Arthur Mutual | Ayersville |
| Bascom Mutual | Benton Ridge | Buckland |
| Champaign | Columbus Grove (FairPoint) | Conneaut |
| Continental (TDS) | Doylestown | Farmers Mutual |
| Fort Jennings | Frontier | Germantown (FairPoint) |
| Glandorf | Horizon Chillicothe | Kalida |
| Little Miami (TDS) | McClure | Middle Point Home |
| Minford | New Knoxville | Nova |
| Oakwood (TDS) | Orwell (FairPoint) | Ottoville Mutual |
| Pattersonville | Ridgeville | Sherwood Mutual |
| Sycamore | Telephone Service | Vanlue (TDS) |
| Vaughnsville | Wabash Mutual | |

With the demand for local phone service declining and recognizing that telecom is much more than local phone service, the small ILECs are aggressively diversifying to compete as wireless, video and broadband providers.

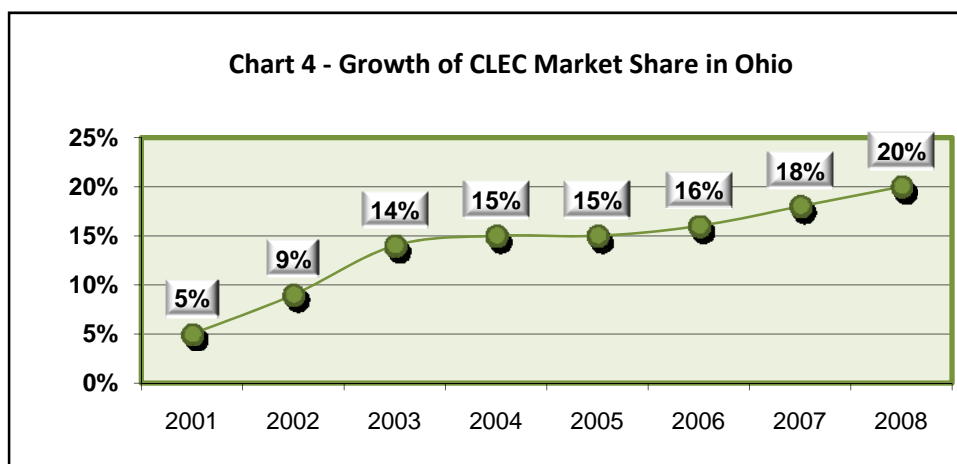
Entering these new lines-of-business takes time and resources, however. For example, becoming a wireless provider requires the ILEC to acquire spectrum, construct cell towers, secure interconnection agreements, purchase inventory, establish retail outlets, and attract customers. Chart 3 shows the percentage of small Ohio ILECs that have diversified with the following services.



CLEC Competition

Competitive Local Exchange Carriers (CLECs) are phone companies that were formed after the 1996 Telecom Act to provide local telephone service in competition with an incumbent provider.

In Ohio, there are **54 active CLECs** whose **market share has grown from 15% in 2005 to 20% in 2009**.



Although CLECs are the only classification of telecom provider with regulatory requirements approaching that of ILECs, their business model is different. Whereas ILECs are required to serve all customers legally requesting service, regardless of the expense, CLECs are allowed to choose their customers. They may enter a market and acquire the largest, most profitable customers without obligation to serve the entire community. This process – known as “cherry picking” – leaves the ILEC serving the high-cost, unprofitable customers.

Table 3 – Access Lines in Ohio

| Year | ILEC Lines | CLEC Lines | Total | CLEC Share |
|------|------------|------------|-----------|------------|
| 2006 | 5,519,782 | 981,363 | 6,501,145 | 15% |
| 2007 | 4,973,233 | 1,068,758 | 6,041,991 | 18% |
| 2008 | 4,552,885 | 1,170,979 | 5,723,864 | 20% |

Countless other lines have been lost to VoIP and cable providers, which are *not* required to report their customer counts or market share, but are estimated to provide phone service to 20 million homes and businesses nationwide.

CLEC Quick Facts

There are 54 active CLECs in Ohio.

CLECs generate \$500 million in annual revenues.

CLECs serve almost 1.2 million homes and businesses.

CLECs have acquired 20% of the market share for local phone service.

CLECs may “cherry pick” and target the most profitable customers with no obligation to serve unprofitable customers.

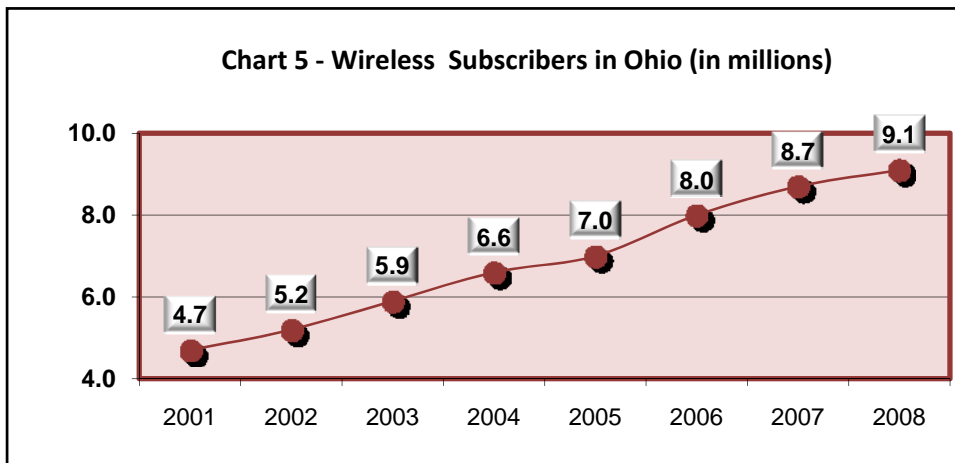
CLECs may lease the facilities of ILECs at wholesale rates and resell the service to customers under their own brand.

40% of CLEC lines are “resold” ILEC lines.

Wireless Competition

Mobile wireless (cellular) is an annual **\$4.4 billion industry** in Ohio – \$144 billion nationwide. There are an estimated **9.1 million wireless users in Ohio** and more than 265 million users across the United States with 19 million new subscribers added in 2008 alone. Ohio is served by **11 wireless carriers**.

Wireless is bigger than landline – both in Ohio and the U.S. – in terms of number of users, minutes-of-use, customer spending and total company revenues.



An estimated **15% of homes in Ohio have completely eliminated local phone service** and rely exclusively on wireless communications. Currently, **80% of all Ohio residents have a wireless phone** compared to 87% nationwide.

Wireless growth is attributed to an ever-expanding wireless network. There are now approximately **220,000 cell towers nationwide**. More than 10,000 new towers were built in 2008 alone.

Data services are driving up wireless revenues with features such as SMS (text messaging), email, and Internet access from the handset. About **2 billion text messages** are sent every day in the U.S. **Wireless data generated approximately \$25 billion** in 2008 for the wireless carriers, accounting for 25% of the average revenue per user (ARPU).

Nationwide, there were more than **2.2 trillion minutes** on the wireless network in 2008, up 15% from 2007. The average wireless call is only 2.5 minutes.

Wireless Quick Facts

There are 11 wireless carriers in Ohio.

There are 9.1 million wireless subscribers.

Wireless generates \$4.4 billion in annual revenues.

Nationally, wireless data generates \$25 billion in annual revenues.

80% of Ohioans have a wireless phone.

15% of Ohio homes have completely eliminated landline service.

There are an estimated 8,000 cell towers in Ohio.

Ohioans complete 800 million minutes of wireless calls per year.

The average wireless calls lasts 2.5 minutes.

VoIP Competition

Another classification of telephone service is Voice over Internet Protocol (VoIP), sometimes referred to as Voice over the Internet or IP Telephony. Until 2004, Vonage had the lion’s share of residential VoIP customers. In 2005, the market lead was overtaken by cable TV companies. There are now **20 million cable telephone customers** in the U.S. (see following section).

VoIP gives customers with a broadband connection unlimited local and long distance calling by converting voice into data packets and sending them over the data network. VoIP does not utilize the traditional public switched telephone network (PSTN) on the outbound call, but it has *connectivity* with the PSTN to make and receive calls to and from any telephone number.

Although many policy-makers have attempted to define VoIP as a telecommunications service, subject to state and federal regulation, VoIP providers have been successful at positioning it as an “information service” – no different than accessing a web site. As a result, VoIP has the capabilities of traditional telecom – phone calls, long distance, calling features – without the corresponding regulatory requirements.

VoIP providers may operate from anywhere, since they use – at no cost – the local phone network to complete calls.

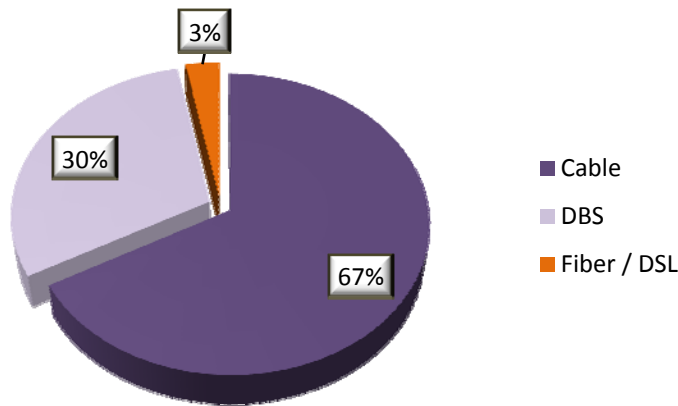
Table 4 – Summary of Telecom Regulatory Requirements

| Regulation | VoIP | ILEC |
|--------------------------------|---------------|-----------|
| Telecom Taxes | Exempt | Applies |
| Universal Service Fund Support | None | Available |
| Local Loop Facilities | None | Regulated |
| Quality of Service | Market Driven | Regulated |
| Disconnection for Non-Payment | At Will | Regulated |
| Billing Rules | None | Regulated |
| State Jurisdiction | None | Regulated |
| Federal Jurisdiction | None | Regulated |
| Access to LD Carriers | None | Regulated |
| 911 Access | Required | Required |
| Tariff | None | Required |
| Social Programs | None | Required |
| Support of TDD, TDY | None | Required |

Video Competition

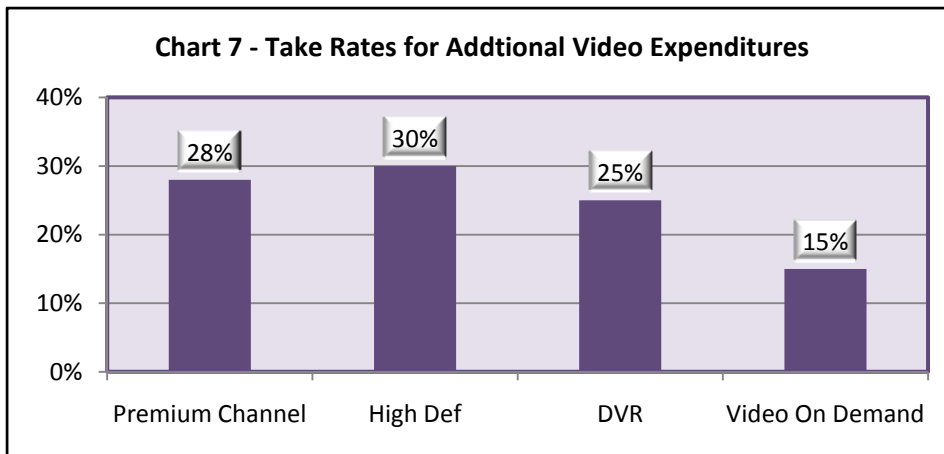
There are **21 cable television companies** in Ohio and **two Direct Broadcast Satellite (DBS) providers**, DirecTV and Dish Network. Combined, they have **97% of the video market-share in the state.**

Chart 6 - Video Market Share



Digital video is a **\$60 monthly expenditure** for the average household. This does not include the additional cost advanced services, such **high-definition or digital video recording, which add approximately \$20 to the bill.**

Chart 7 - Take Rates for Additional Video Expenditures



More than **70% of the ILECs in Ohio now offer subscription video service**, but most of these are simply cable television subsidiaries within the footprint of their telephone service areas. Some of the larger telcos are now sales agents for DirecTV and Dish Network, having struck bundling deals with the satellite industry.

Video Quick Facts

There are 21 cable television companies in Ohio.

There are two direct broadcast satellite provider – DirecTV and Dish Network.

Telcos offering video over DSL or fiber have 3% of the video market-share.

Digital video is an average \$60 monthly expenditure for residential customers.

Advanced services, such as HD, DVR and premium channels, can add more than \$20 to the monthly bill.

There are an estimated 20 million cable telephony customers nationwide.

A new video franchising law in Ohio has resulted in 37 new providers entering the market and will generate more than \$500 million in infrastructure spending.

Cable Telephony

As of December 2008, there were an estimated **20 million cable telephone customers nationwide, an increase of 11% in one year.** The exact numbers are unknown, as cable telephony is not a regulated telecom service. Providers are not required to report customer counts, nor is there any oversight from the PUCO or FCC.

Although dubbed “Cable Telephony” or “Digital Voice,” the technology is VoIP. The only distinction between Vonage and a local cable company offering “digital voice” is scope. The local cable company promotes the service exclusively to its cable television and broadband customers, whereas Vonage promotes its service nationally to anyone with a broadband connection. As VoIP providers, Cable Telephony enjoys the same competitive advantages, outlined in the previous section.

Franchising Changes

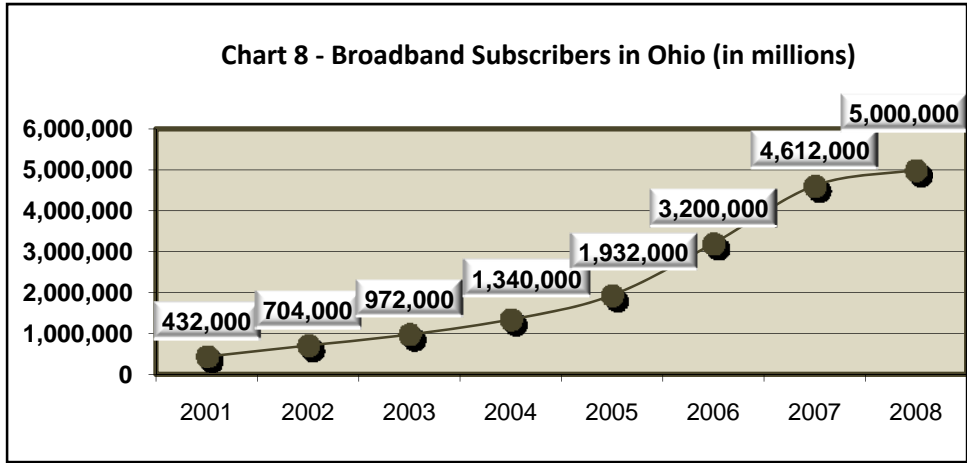
On June 25, 2007, Governor Ted Strickland signed Senate Bill 117, which created the one-stop, statewide video-service authorization (VSA) process. Previously, companies had to negotiate local franchises with each municipality or township.

To date, **37 companies – 15 of which are ILECS – have applied for and received approval to provide video services in Ohio.**

Statewide VSA accelerates infrastructure investment to deliver more video and broadband services to Ohioans. For example, AT&T has announced plans for a **\$500 million investment in video deployment.**

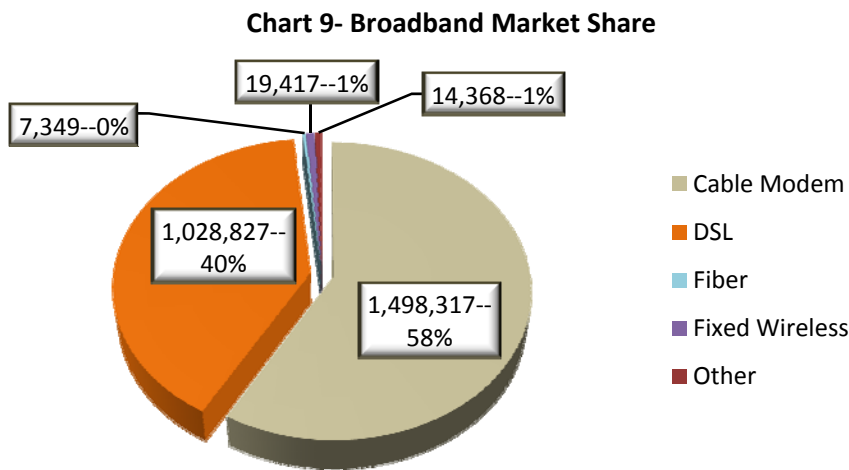
Broadband Competition

Internet access is becoming as common as the telephone. High-speed connections can now be found in **55% of Ohio households**, compared to 38% just three years ago, resulting in **2.8 million residential broadband customers**. There are an additional **2.2 million broadband business lines**.



In Ohio, the total number of broadband customers (residential and business) has increased by more than three million over the past four years. According to the FCC and Connect Ohio, **95% of Ohio homes have access to high-speed Internet service**.

Cable companies have a competitive advantage over telcos in broadband market-share even though their networks do not reach as many residents or businesses as the telco network. The “other” category is other non-DSL landline broadband services, such as T1 and ISDN.



Broadband Quick Facts

There are 88 broadband providers in Ohio.

Broadband generates \$2.8 billion in annual revenues.

95% of homes and business in Ohio can receive broadband from a landline or terrestrial wireless network.

There are 2.8 million residential broadband customers, or 55% of households.

Broadband is a \$35 monthly household expenditure.

There are 2.2 million broadband business lines.

Cable modem service – provisioned by cable television companies – has the majority market-share.

Fewer than 3% of customers receive broadband over fiber or a fixed wireless network.

Sources

Data was collected from websites and research reports of the following organizations:

- CTIA (formerly the Cellular Telecommunications Industry Association)
- Connect Ohio
- Cronin Communications (a national telecom research and consulting firm)
- Federal Communications Commission
- National Cable and Telecommunications Association
- National Exchange Carriers Association
- Ohio Cable Television Association
- Ohio Telecom Association
- Public Utilities Commission of Ohio

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