

An hourglass-shaped graphic with a globe in the top bulb and a smaller globe in the bottom bulb. The hourglass is light blue and has a dark blue cap at the top. The globe in the top bulb is dark blue, while the globe in the bottom bulb is light blue. The text is centered within the hourglass.

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*Local Telephone Competition: A Brief Overview*

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Updated May 27, 2003

**Abstract.** This report analyzes the status of competitive entry in the local (exchange) telephone market. The analysis is confined to the wireline exchange telephone market.

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# Report for Congress

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## Local Telephone Competition: A Brief Overview

**May 27, 2003**

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# Local Telephone Competition: A Brief Overview

## Summary

One of the central goals of the Telecommunications Act of 1996 (P. L. 104-104) is to promote competition in the local(exchange) telephone market. The 1996 Act attempts to foster this competition by, among other provisions, requiring that the local monopoly infrastructure be opened up to competitors. The Federal Communications Commission (FCC) has been tasked with implementing a series of rulemakings to achieve this goal. In the seven years since the Act's passage, policy makers have continued to debate the extent to which this goal has been realized.

Although the local telephone market had experienced limited competitive entry in selected high end urbanized business markets since the 1980's, the birth of local exchange competition can be traced, to a large degree, to changes that have occurred since the implementation of the market opening provisions contained in the 1996 Act. The major players involved in this transition are: the incumbent local exchange carriers or ILECs, who control, but have been required to provide access to, the legacy network; and a wide range of entities known as competitive local exchange carriers, or CLECs, who, through these market opening provisions, have been encouraged to compete with the ILECs for market share.

The ILECs, or established carriers, are composed of exchange carriers that are the historical holders of the franchise to provide exchange service, local transport, and switching services within a designated service territory. Those who compete with the incumbents, or CLECs, enter the market in any one, or any combination, of three major ways: through resale of the ILEC's retail services; through the use of unbundled network elements; or through the building of their own facilities.

ILECs continue to dominate the local exchange market in terms of both revenue share (87.4 percent) and number of access lines (88.6 percent), but CLECs have been steadily making inroads. The CLEC industry has, overall, experienced a steady increase, in both real and absolute terms, in industry revenues and access line market share. Despite this overall increase, the level of competition has entered markets, both in terms of service sector and geography, to varying degrees. In general, high volume business markets have benefitted more from competitive entry as have more densely populated markets. Competition in residential and small business markets and in geographic markets outside of major metropolitan areas, while increasing, generally tends to be less robust. ILECs continue to dominate in the residential market. The growth of competition has been uneven with some individual markets experiencing high levels of competitive entry and others experiencing next to none. In the seven years since the passage of the 1996 Telecommunications Act competition has grown, but perhaps at a slower pace than some envisioned. The entrance of competition in the local exchange market, however, continues to be a work in progress that remains subject to economic, legal and regulatory forces.

This report will be updated as events warrant.

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# Local Telephone Competition: A Brief Overview

One of the central goals of the Telecommunications Act of 1996<sup>1</sup> is to promote competition in the local exchange market, a market that, according to Federal Communications Commission (FCC) statistics, generated revenues of \$127.8 billion in 2001. The 1996 Act attempts to foster this competition by, among other provisions, requiring that the local monopoly infrastructure be opened up to competitors. The Federal Communications Commission (FCC), in conjunction with the 50 state public utility commissions, has been tasked with implementing a series of rulemakings to achieve this goal. In the seven years since the Act's passage policy makers have continued to debate the extent to which this goal has been realized. This report analyzes the status of competitive entry in the local (exchange) telephone market.<sup>2</sup>

## Market Structure

The local exchange market has begun the transition from regulated monopoly to a less regulated, competitive market structure. This transition, while still in its early stages compared to other telecommunications sectors, has been made possible due to a combination of technological, regulatory and legal actions. The local exchange market has experienced limited competitive entry in selected high end urbanized business markets since the 1980's. However, the birth of local exchange competition can be traced, to a large degree, to changes that have occurred since the implementation of the market opening provisions contained in the 1996 Telecommunications Act. The major players involved in this transition are: the incumbent local exchange carriers or ILECs, who control, but have been required to provide access to, the legacy network; and a wide range of entities known as competitive local exchange carriers, or CLECs, who, through these market opening provisions, have been encouraged to compete with the ILECs for market share.

**Incumbent Local Exchange Carriers (ILECs).** The local, or exchange, telephone service market is dominated by the incumbent local exchange carriers, or ILECs. These ILECs, or established carriers, are composed of exchange carriers that are the historical holders of the franchise to provide exchange service, local transmission, and switching services within a designated service territory. They are

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<sup>1</sup> Telecommunications Act of 1996, P.L. No.104-104, 110 Stat. 56, codified at 47 U.S.C. paras. 151 et. seq.

<sup>2</sup> This report is confined to an analysis of the wireline exchange telephone market. The impact of the wireless sector goes beyond the scope of this report.

the owners of the “legacy monopoly infrastructure” known as the “local loop.”<sup>3</sup> There are approximately 1,300 companies defined as ILECs ranging in size from small rural telephone cooperatives with as few as 100 access lines to customers, to large holding companies offering service to tens of millions of customers. ILECs can be further divided into two subcategories: the Regional Bell Operating Companies (RBOCs) and the independents.

The RBOCs are the remainder of the legacy Bell System’s 22 operating companies, and were created as a result of the 1984 AT&T divestiture. At the time of divestiture the 22 operating companies were broken up into 7 regional companies called RBOCs. Due to a series of mergers and acquisitions and consolidations of the initial seven RBOCs, four, BellSouth Corp., SBC Communications Inc., Qwest Communications International Inc. and Verizon Communications Inc., remain. RBOCs dominate the local exchange market in terms of both access lines and revenue.

Those ILECs that historically are not part of, and have developed independently of, the Bell System are called the independent carriers. These “independents,” which make up the remaining 1300 ILECs are not affiliated with the Bell companies, and range from diversified telecommunications companies such as Alltel Corp. with 2001 year revenues of almost \$8 billion<sup>4</sup> to small rural telephone cooperatives. They serve territories that cover approximately half of the United States in terms of land mass but are substantially smaller than the RBOCs in terms of revenue and access lines. Although the independent ILECs do service some suburban and urban areas, in contrast to the RBOCs they have a more rural footprint. The independent ILECs also differ in terms of regulatory requirements in that they tend to be subject to less regulatory oversight, and, because of their presence in more rural markets, are not as likely to face competition.

**Competitive Local Exchange Carriers (CLECs).** Those who compete with the ILECs, for local exchange service market share are known as competitive local exchange carriers, or CLECs. CLECs span a wide range of entities and own none, part, or all of their facilities. CLECs can also vary in size from multi billion dollar companies that may earn only a small fraction of their revenues from local exchange service to small niche providers that earn all of their revenue from such services. Some CLECs are comprised of newly formed entities that have entered the market to provide telecommunications services. Established long distance carriers have tended to become CLECs by deploying their own facilities to serve selected business customers and leasing ILEC facilities to serve residential customers. While still other CLECs, such as cable television companies and electric utilities, have entered the telecommunications market as the result of diversification and are

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<sup>3</sup> Although often called the “local loop,” this infrastructure actually consists of switches, transport facilities between switches, and the ubiquitous grid of local loops that connect subscribers to the ILEC’s switches.

<sup>4</sup> For additional financial information see the company’s web site at [www.alltel.com](http://www.alltel.com).

modifying, or using, their existing infrastructure to provide telecommunications services.<sup>5</sup>

Technically the CLEC classification is bestowed upon an entity based on the market circumstances in which it competes. Broadly stated, a CLEC is an entity that is competing with the incumbent provider for market share. So the CLEC designation is a market-specific one that changes with market circumstances. For example, the RBOC Verizon when providing exchange service in its home territory of New York would be classified as an ILEC. However, if Verizon were to provide local exchange service in Texas, a market not included in its assigned service territory, it would be classified as a CLEC in that specific market. Similarly, if an independent ILEC chose to provide exchange service outside its assigned ILEC service territory it too would be classified as a CLEC in that out-of-territory market. However, when industry analysts refer to the CLEC sector they are generally referring to new entities competing with the RBOCs and independent ILECs.

The recent significant decline in the number of CLECs and the financial hardship experienced by the CLEC sector has caused some concern regarding this market segment. Today it is estimated that there are approximately 80-100 CLECs in operation in contrast to the estimated 300 at the end of 1999. Although any number of factors can combine to contribute to an individual CLEC's decline, a number of investment analysts and economists cited an overly optimistic outlook for customer demand, the financial burdens associated with the rapid build-out of costly infrastructure, and an unsettled regulatory climate, coupled with an overall weak economy, as some factors contributing to this decline.<sup>6</sup> Despite this environment, however, CLEC market share has continued to grow in terms of both revenue and access lines. (See Market Share Overview, below.)

The report, *Progress Report on the CLEC Industry*, released in October 2002, by the Association for Local Telecommunications Services (ALTS), an association representing facilities-based CLECs, provides an optimistic outlook for this market segment. This report, which compiled statistics on the 18 largest publicly traded CLECs, states that the financial health of these companies is positive. That is, as a group, they showed a positive EBITDA<sup>7</sup> for the first 6 months of 2002 for the first time in history, and two within that group have generated net income. Furthermore, the report states, capital remains available with CLEC's attracting more than \$1 billion in investments over the first 9 months of 2002. Indications are, the report claims, that the CLEC industry is "stabilized" and is poised to revive in 2003. A follow-up report, *The State of Local Competition 2003*, issued by ALTS in April 2003, confirms the mid-year findings of its October 2002 report. The April 2003 report, which compiled end-of-year data for 21 publically traded CLECs, showed

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<sup>5</sup> Additional competitors include municipally owned telecommunications systems and the more recent introduction of Internet telephony services offered through a broadband connection.

<sup>6</sup> Analysts, Economists Give FCC Pessimistic Outlook on Telecom Health. *Communications Daily*, October 8, 2002. p.1.

<sup>7</sup> EBITDA, earnings before interest, taxes, depreciation, and amortization does not indicate profitability on a net basis but is a commonly used measure indicating financial health.

results consistent with the October 2002 report. Eighteen of the 21 CLECs improved their EBITDA over the previous year with 13 posting a positive EBITDA in 2002. The April 2003 report concluded that "...the financial condition of the CLECs as a whole has stabilized, although it is still quite tenuous." The reports also note that CLEC growth, while affected by the overall economic health of the Nation, is also dependent on sufficient and timely access to ILEC networks and the enforcement of existing rules to ensure that markets remain open and friendly to competition. The reports also stress the need for policy makers and regulators to provide reasonable certainty so that CLECs can attract capital investment from financial markets.<sup>8</sup>

**Cable Television Entry into Telephony.** The cable television industry has expanded its service offerings beyond its original video programming to include, among other products, the delivery of facilities-based circuit switched voice telephone service to both residential and business customers.<sup>9</sup> Although cable delivered telephone service claims a small percentage (1 percent)<sup>10</sup> of market share, cable system operators have the potential to become significant players in the voice market. According to the National Cable and Telecommunications Association (NCTA), a leading industry trade group, cable companies offer both residential and business voice service in over 30 cities and 15 states across the country and as of year-end 2002 cable companies served approximately 2.5 million residential local voice customers.

AT&T Broadband, the nation's largest cable multiple system operator, had more than half of the cable industry total with 1.2 million residential subscribers in 10 states at the end of the fourth quarter 2001. However, the November 2002 sale of these cable assets to Comcast Cable, is anticipated to have a negative impact, at least for the short term, on voice telephony expansion plans. According to Comcast executives, deployment of telephone services faces financial, regulatory, and technological hurdles and will not be a current priority. Comcast President Brian Roberts stated that Comcast plans to focus on the implementation and expansion of video-on-demand for 2003 and that the cable industry should be focusing its resources on enhanced video services instead of telephony to combat the threat that Direct Broadcast Satellite (DBS) service is posing for the industry.<sup>11</sup>

Despite the shift in focus by Comcast, other cable television companies are continuing to pursue telephony as part of their service offerings mix. Cox Communications, the fifth largest cable multiple system operator, with 6.3 million subscribers, has made a commitment to use its infrastructure to further expand its presence in the local voice telephony market. Cox had more than 516,000 residential telephone subscribers as of mid-June 2002, making it the nation's 12<sup>th</sup> largest local

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<sup>8</sup> For a copy of these reports see the Association's web site [<http://www.alts.org>.]

<sup>9</sup> Cable companies are also among those undertaking trials using packetized voice technologies such as voice over Internet protocol, or VoIP, to transmit voice conversations.

<sup>10</sup> According to FCC data, cable companies represent 1 percent of market share in terms of switched access lines. See Market Share Overview, below.

<sup>11</sup> *Comcast Won't Expand Telephony Next Year; Executives Cite Financial, Regulatory Hurdles*. Telecommunications Reports, December 15, 2003, P. 3.



exchange carrier.<sup>12</sup> Cox's focus on market expansion continues with total telephony subscribership increasing to 718,420 at year-end 2002, representing year-over-year growth of 58 percent. Cox's telephony revenues were \$344.2 million for 2002. Despite this trend, however, telephony revenues remain a small portion of Cox's \$5.0 billion 2002 revenue stream.<sup>13</sup>

While the provision of voice service has become an increasing factor in the revenue strategy of some of the large cable multiple system operators, it has not, as of now, been embraced to the same degree by the cable industry as a whole. According to the NCTA, the cable television industry is more focused on the deployment of high-speed Internet access, digital video and other new services.<sup>14</sup> As a result, cable industry market share in the provision of local telephony, while growing, still remains small with cable circuit switched residential telephony revenue estimated to be \$1.18 billion for 2002. In contrast, total cable industry revenue is estimated at \$48.15 billion for 2002.<sup>15</sup>

## Methods of Competitive Entry

The 1996 Act allows CLECs to enter the market in any one, or any combination, of three major ways: through resale of retail ILEC services; through the use of ILECs' unbundled network elements; or through the building of their own facilities.

**Resale.** Under the resale model, competitors resell the ILECs' retail services which the ILECs are required to make available to the reseller at wholesale rates. Resellers market these services, at retail prices, to end users. Little or no investment in facilities infrastructure is needed on the part of the competitive entrant. While this eliminates a major obstacle - expensive start up costs, which can be a significant deterrent to entry- the competitor is totally dependent on the incumbent to reach its customer base; it cannot modify the service offering and its cost structure is dominated by the ILEC retail price. Resale is often categorized as the first stage of competitive entry, a method by which a competitor can enter a market to build a subscriber base. Nonetheless, resale represents a significant, if declining, portion of market share and some carriers have developed a permanent market niche as resellers.

**Unbundled Network Elements.** The use of unbundled network elements (UNEs) refers to the method of gaining market access through the use of selected components, or elements, of the incumbent carrier's network.<sup>16</sup> Under this scenario,

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<sup>12</sup> Cable & Telecommunications Industry Overview Year-End 2002. National Cable and Telecommunications Association.[ <http://www.ncta.com>.]

<sup>13</sup> Cox Communications 2002 Annual Report available at [<http://www.cox.com>]

<sup>14</sup> *MSOs' Plans for Cable Telephony Could be Dampened*. Telecommunications Reports, October 1, 2002, p.7.

<sup>15</sup> Data from National Cable and Telecommunications Association.

<sup>16</sup> Under provisions contained in section 251(d) of the 1996 Act, ILECs must make  
(continued...)

a competitor may have part or most of the infrastructure needed to provide service, but fills in the pieces it is lacking (e.g., a switch) to complete access to the end user. The competitor leases these network parts, or elements, from the ILEC at cost-based rates.<sup>17</sup> The competitor is dependent, to varying degree, on the incumbent to reach its subscriber base. An outgrowth of this method is the use of the UNE platform (UNE-P). The UNE-P, developed to help facilitate competition, consists of a fully assembled package of network elements, consisting of the loop, local switching, and shared transport, made readily available for lease by the competitor. The UNE-P enables the competitor to provide end- to- end local exchange service.

**Facilities Based.** Under the facilities based method, the competitor owns its own facilities independent of the incumbent's infrastructure. The facilities-based carrier does not need to access the incumbent's network to reach its customer base. Facilities-based competitors are often found in high volume areas serving end users with substantial telecommunications needs, necessary conditions to justify the investment in such costly infrastructure. Typically, their customers are located on, or in very close proximity to, the CLEC's fiber optic ring network.

Some policy makers view facilities-based competition as the most desirable form of entry, citing, among other positives, increased economic growth in jobs and innovation that result from the deployment of new infrastructure. Furthermore, they state, facilities based competition decreases the sharing of infrastructure thereby minimizing the need for government intervention. The ability to use UNEs and the UNE-P in particular, they state, discourages investment in new infrastructure on behalf of both the ILEC and the CLEC. Duplication of telecommunications infrastructure is also seen as a positive byproduct in light of heightened national security and emergency planning concerns. While acknowledging these benefits, others claim that resale and unbundling are important entry methods that promote competition particularly in markets, such as the residential market, that are less likely to attract competitive entry. Furthermore, they claim, the use of resale and unbundling will accelerate the development of facilities-based competition as it allows CLECs to penetrate markets and develop their own customer base, subsequently providing the scale economics needed to justify construction of new facilities. Also, they claim the sharing of facilities, while providing customer choice, does not necessitate the disruption of the rights-of-way.

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<sup>16</sup> (...continued)

available those elements of their network without which CLECs would be impaired in their ability to offer local service.

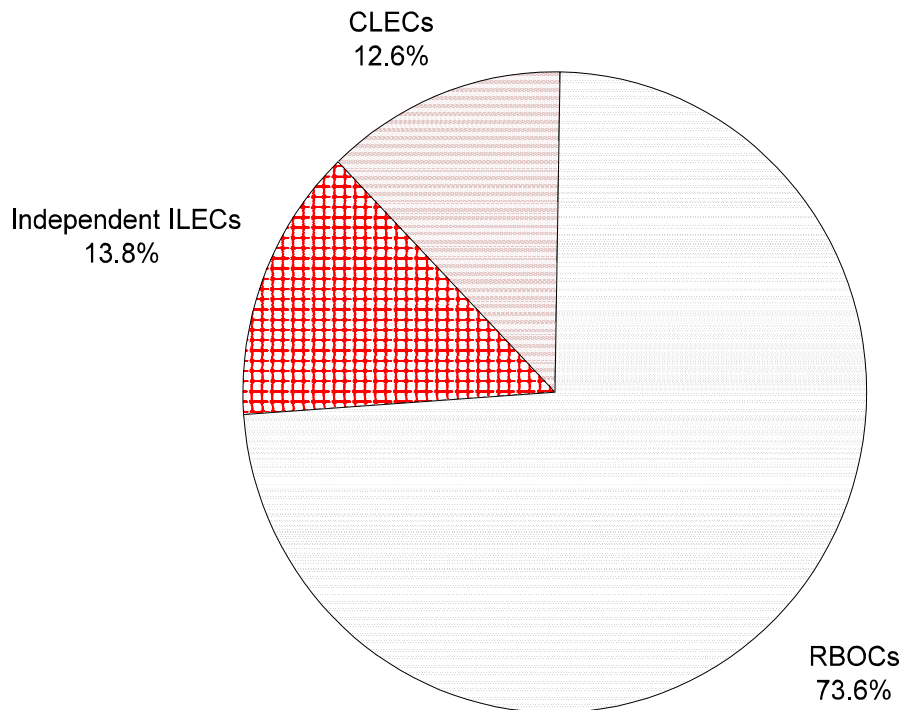
<sup>17</sup> The FCC requires that prices for UNEs must be based on a forward looking cost methodology know as TELRIC , total element long run incremental cost. TELRIC is based on a forward looking methodology. Under TELRIC the cost of the elements is not based on the ILEC's historical costs for its facilities but on the costs that would be incurred if the network were built using today's technology.

## Market Share Overview

In the telecommunications sector, market share, and subsequently the status of local service competition, is often examined based on two factors: revenue share and number of access lines. ILECs continue to dominate the local exchange market in terms of both factors, according to FCC-compiled data, but CLECs have been steadily making inroads.

**Revenues.** Local exchange market revenues, according to FCC-compiled data, totaled \$127.8 billion in 2001 with the ILECs continuing to hold the lion's share of these revenues. The Regional Bell Operating Companies (RBOCs) revenue represented \$94.1 billion, or 73.6 percent, of total 2001 market share. The independent ILECs had \$17.6 billion, or 13.8 percent, of market share revenues giving the ILECs, as a whole, 87.4 percent of local exchange revenues. The CLECs represented 12.6 percent of 2001 market share, or \$16.1 billion, of revenues. (See Figure 1.) While the ILECs, and in particular the RBOCs, continue to dominate the local exchange market in terms of revenues, the 2001 CLEC market share

**Figure 1. Local Exchange Market Revenues – 2001  
Percentage Market Share**



Source: Prepared by CRS using Federal Communications Commission data.

experienced an almost 3 percentage point increase over its 9 percent share for 2000. This CLEC increase came at the expense of the RBOCs that, while keeping their 2001 revenues unchanged at \$94.1 billion, lost 4.4 percent from its 78 percent 2000 market share. The RBOCs also lost market share to the independent ILECs whose

share increased 0.8 percent from its year 2000 market share of 13 percent.<sup>18</sup> The revenue market share trends experienced in 2001 and 2000, that is of CLEC growth in revenue in real terms as well as in market share, appear to be consistent with prior years following the enactment of the 1996 Act.<sup>19</sup>

**Access Lines.** In addition to revenues, market share can also be determined based on the number of local telephone, or switched access lines, in service to end-user customers. While some customers are more lucrative than others in terms of revenue generated, the ability to compete in the local exchange market is based, to a significant degree, on access to the customer base and its potential revenues. As in the case of revenue market share, FCC access line data<sup>20</sup> show that in terms of raw numbers ILECs continue to dominate. However, despite this dominance, CLEC access line share continues to grow, but most recently at a slower pace. Analysis of FCC- collected access line data, as of June 30, 2002,<sup>21</sup> reveals the following market trends.

Of the 189 million total switched access lines in service, CLECs accounted for 11.4 percent, or 21.6 million. Percent of market share has increased steadily for the CLECs since December 1999 when they claimed 4.3 percent of switched access lines. However, the pace of growth has slowed with a 10 percent rate of increase for the first half of 2002 versus 14 percent for the previous six months. (See Table 1.)

**Table 1. End-User Switched Access Lines**

Date	ILEC Lines	CLEC Lines	Total	CLEC Share
December 1999	181,307,695	8,194,243	189,501,938	4.3 %
June 2002	167,472,318	21,644,928	189,117,246	11.4 %

Source: Data from Federal Communications Commission.

<sup>18</sup> *Telecommunications Industry Revenues 2001*. Federal Communications Commission. Wireline Competition Bureau. Industry Analysis and Technology Division. March 2003. [<http://www.fcc.gov/wcb/iatd/stats.html>]

<sup>19</sup> According to FCC data for 1999, CLEC revenues were more than \$5 billion, an increase of 60 percent over 1998, accounting for almost 5 percent of local service revenue market share. The lack of consistent and systematic data for earlier years limits the ability to make direct comparisons.

<sup>20</sup> *Local Telephone Competition: Status as of June 30, 2002*. Federal Communications Commission. Wireline Competition Bureau. Industry Analysis and Technology Division. December 2002. [<http://www.fcc.gov/web/iatd/stats.html>]

<sup>21</sup> Data reflects information provided by “qualifying carriers,” that is carriers with at least 10,000 local telephone lines in a particular state.

Access line data also reveal the type of entry method used by CLECs to penetrate the market. (See Table 2.) As of June 2002, half (50.5 percent) of CLEC access lines were provided using UNE loops from other carriers, 20.7 percent were provided through resale, and the remaining 28.8 percent were provided by local loop facilities owned by the CLECs (facilities-based.) Of the 6.24 million CLEC facilities-based access lines, 12 percent (2.6 million) of those lines were provided by cable television companies over coaxial cable, with those lines representing 1 percent of total switched access lines.

**Table 2. CLEC Entry Method**  
(End-User Switched Access Lines in Thousands)

Date	Resold Lines	Percent	UNEs	Percent	CLEC Owned	Percent
Dec. 1999	3,513	42.9 %	1,959	23.9 %	2,723	33.2 %
June 2002	4,478	20.7	10,930	50.5	6,236	28.8

Source: Data from Federal Communications Commission.

In terms of total number, CLEC access lines of all three types of entry have increased. However, CLEC entry methods have changed significantly since December 1999. The use of resale has declined steadily in favor of the use of UNEs. Also CLEC-owned lines, as a percentage of total lines, has decreased slightly. According to FCC data, CLEC access lines using resale, while increasing in real terms from 3.5 million to 4.5 million, decreased as a percentage of total lines from 42.9 percent in December 1999 to 20.7 percent in June 2002. During the same time period, the use of UNEs increased in both real terms and as a percentage of lines from 2 million to 11 million, or from 23.9 to 50.5 percent.<sup>22</sup> While the total number of CLEC-owned (i.e., facilities-based) lines has increased from 2.7 to 6.2 million, from December 1999 to June 2002, the percentage of the total that are facilities-based decreased from 33.2 to 28.8 percent during that same time period. (See Table 2.)

FCC data also show that ILECs and CLECs tend to serve different markets. (See Table 3.) While ILECs have more lines in total, the percentage of total lines serving the various market segments differs significantly. In June 2002, slightly more than half, or 51.2 percent, of CLEC access lines served residential or small businesses, with the remaining 48.8 percent serving large businesses, institutional, and government customers. In contrast, ILECs continue to dominate in the residential market with 78.3 percent of their access lines serving the residential and small business market. CLECs, however, have increased their penetration of the residential and small business market. The total number of CLEC access lines in

<sup>22</sup> UNE lines include UNE loops leased from an unaffiliated carrier on a stand-alone basis and also UNE loops leased in combination with UNE switching or any other unbundled network elements.

both categories has increased in absolute terms, over the past few years, but the ratio between the two categories has shifted with CLECs increasing their presence in the residential and small business market. In December 1999, the percentage of CLEC access lines serving residential and small businesses was only 41.1 percent, slightly more than 10 percentage points less than in June 2002. On the other hand, the ratio has remained fairly consistent for the ILECs with 77.1 percent of access lines serving the residential and small business market in December 1999, a figure only 1.2 percentage points below 2002.

**Table 3. End-User Switched Access Lines by Customer Type**

Date	ILEC			CLEC		
	Residential and Small Business	Other <sup>1</sup>	Percent Residential and Small Business	Residential and Small Business	Other <sup>1</sup>	Percent Residential and Small Business
Dec. 1999	139,758,434	41,549,261	77.1 %	3,368,702	4,825,541	41.1 %
June 2002	131,051,178	36,421,140	78.3	11,080,676	10,564,252	51.2

<sup>1</sup>Medium and large business, institutional, and government customers.  
Source: Data from Federal Communications Commission

FCC data collected by state and zip code reveals that competition is increasing nationwide. As of June 2002, at least one CLEC was serving customers in 67 percent of the Nation's zip codes, with 93 percent of U.S. households residing in these zip codes. Also, at least one CLEC operates access lines in all 50 states, the District of Columbia and Puerto Rico, and in 14 states, ten or more CLECs reported serving local service customers. In general, however, the most populous states tend to contain the largest number of CLEC lines, with the three most populous states - California, Texas and New York - ranking third, second and first respectively in terms of CLEC access lines. Texas (36 percent), Florida (27 percent) and New York (25 percent) had at least 25 percent of zip codes served by 10 or more CLECs compared to 6 percent of zip codes nationwide. However, when comparing CLEC lines as a percentage of total access lines within a state, some of the less populous states such as Rhode Island and Nebraska report a higher percentage than many populous ones.

## Conclusion

In the seven years since the passage of the 1996 Telecommunications Act competition has grown, but perhaps at a slower pace than some envisioned, in the local exchange market. In terms of local exchange revenue share and access lines, the incumbent local exchange carriers (ILECs) continue to dominate the overall market, with the Regional Bell Operating Companies (RBOCs) holding the lion's share of both. Competitive local exchange carriers (CLECs), however, have

continued to steadily increase their market share in terms of both indicators, and competition is spreading nationwide. Despite this overall increase, the level of competition, both in terms of service sector and geography, varies. In general, high volume business markets have benefitted more from competitive entry as have more densely populated markets. Competition in residential and small business markets and in geographic markets outside of major metropolitan areas, while increasing, generally tends to be less robust. ILECs continue to dominate in the residential market. The growth of competition has been uneven, with some individual markets experiencing high levels of competitive entry and others experiencing next to none.

In terms of infrastructure, the ILECs continue to dominate as a result of their ownership of the legacy infrastructure, and especially the “local loop.” While the total number of CLEC access lines that are facilities-based is increasing, their percentage of the mix has decreased slightly. Although the use of resale has dropped significantly, many CLECs continue to be dependent on the ILECs for market access.

CLECs’ most common method of entry is the use of UNEs with the UNE-P increasing in popularity. CLEC dependence on the ILEC infrastructure is seen by some as a natural transition to promote competition, while others feel it thwarts the development of “true” competition.

The recent financial turmoil experienced in the CLEC market has resulted in a significant decline in the number of CLECs in operation, but some feel that in the long run this will be a positive factor resulting in fewer, but stronger competitors. Despite this decline in numbers, the CLEC industry has, overall, experienced a steady increase, in both real and absolute terms, in industry revenues and access line market share. The entrance of competition in the local exchange market, however, continues to be a work in progress that remains subject to economic, legal and regulatory forces.