Report on the Status of Competition in the Telecommunications Industry

As of December 31, 2014
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Office of Telecommunications
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>CLEC</td>
<td>Competitive Local Exchange Company</td>
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<td>FCC</td>
<td>Federal Communications Commission</td>
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<tr>
<td>FiOS</td>
<td>Verizon’s trademark name for its fiber-to-the-home package of services</td>
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<td>Florida Public Service Commission, the Commission</td>
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<td>ICA</td>
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<td>Mbps</td>
<td>Megabits per second</td>
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<td>NLAD</td>
<td>National Lifeline Accountability Database</td>
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<td>TDM</td>
<td>Time Division Multiplexing</td>
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<td>USF</td>
<td>Universal Service Fund</td>
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<td>USAC</td>
<td>Universal Service Administrative Company</td>
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Executive Summary

This report fulfills the statutory obligations set forth in Section 364.386, Florida Statutes, which requires the Florida Public Service Commission to report on the status of competition in the telecommunications industry to the Legislature by August 1 of each year. The Commission is required to address specific topic areas within the realm of competition. On February 17, 2015, information requests were sent to the 10 incumbent local exchange companies and 256 competitive local exchange companies certificated by the Commission to operate in Florida, as of December 31, 2014.

In 2014 and early 2015, several national telecommunications issues came to the forefront. AT&T started a trial in West Delray Beach, converting a central office from traditional services to next-generation Internet Protocol technology. The Federal Communications Commission (FCC) issued its highly anticipated Open Internet rules. The FCC preempted state authority in two significant cases. Reformation of the Federal Universal Service Fund continued, resulting in an increase in the fund size of at least $1.9 billion. Also, significant work was conducted by Congress in an effort to rewrite the existing federal Communications Act of 1934, as amended, which would be the first major changes since 1996. The combination of these proceedings will likely have a significant impact on Florida for decades to come.

The economy and several other factors continued their trends in 2014. The national economy continued to improve at a slightly faster rate, and Florida showed economic growth for the fourth consecutive year. AT&T, CenturyLink and Verizon continued to show access line losses in the national wireline market. The market continued to consolidate with several mergers and acquisitions. Several intrastate issues were resolved or initiated in 2014, including a major arbitration request and the implementation of an additional area code in the Keys. The Lifeline subscription rate in Florida increased slightly, from 47 percent of eligible households in 2013 to 49.6 percent in 2014.

The telecommunications market in Florida, as reported by the carriers, continued to show consumers migrating from traditional wireline service to wireless and cable/Voice over Internet Protocol services. In 2014, business customers also migrated to Internet Protocol technology in large numbers. Carriers reported approximately 3.8 million total wireline access lines in Florida for 2014.

For the fourth year in a row, total wireline business access lines exceeded total residential lines. However, wireline business access lines, which had remained fairly stable through the past five years, began to match the precipitous drop that residential lines have been experiencing during the same period. While residential lines declined an additional 16 percent in 2014, business line declines were 17 percent. Much of this decline can be attributed to the transition to Voice over Internet Protocol and wireless-only services.

The competitors’ market share reflected their focus on the business market. While competitive local exchange companies were able to garner 39 percent of the wireline business market, they accounted for only one percent of the residential market share. While AT&T and Verizon’s
wireline accounts are split about 50/50 in the residential and business markets, over 98 percent of the competitive local exchange carriers’ wireline access lines are business accounts.

Intermodal competition from wireless, Voice over Internet Protocol, and broadband continued to drive the telecommunications markets in 2014. There are an estimated 19 million wireless handsets in Florida, and an additional 2 million cable Voice over Internet Protocol subscribers. Over 63 percent of Florida households have a broadband connection with download speeds of at least 3 megabytes per second.

Analysis of the data produced the following conclusions:

- Many competitive local exchange companies reported offering a variety of services and packages comparable to those offered by incumbents. Subscribers to cable, wireless, and business VoIP services continued to increase. These factors contribute to the conclusion that competitive providers are able to offer functionally equivalent services to both business and residential customers.

- The continued decrease in both business and residential incumbent local exchange carrier wireline access lines demonstrates customers are finding reasonable pricing packages and functionality with competitive local exchange companies, cable providers, and wireless providers, as well as Voice over Internet Protocol services from the incumbent local exchange carriers.

- Based on the continued growth of interconnected Voice over Internet Protocol services and wireless-only households, network reliability of non-incumbent providers is sufficient to satisfy customers. The Federal Communications Commission-reported telephone penetration rate of 94.1 percent for Florida suggests that the overwhelming majority of Florida residents are able to afford telephone service. The number and variety of competitive choices among all types of service providers suggests that competition is having a positive impact on the telecommunications market in Florida.
Chapter I. Introduction and Background

In 2011, the Florida Legislature amended Chapter 364, Florida Statutes (F.S.), to account for the continuing development of competition in the state’s local telecommunications markets. The Legislature found that “the competitive provision of telecommunications services, including local exchange telecommunications service, is in the public interest and has provided customers with freedom of choice, encouraged the introduction of new telecommunications services, encouraged technological innovation, and encouraged investment in telecommunications infrastructure.”

Chapter 364, F.S., requires the Florida Public Service Commission (the Commission or FPSC) to prepare and deliver a report on the status of competition in the telecommunications industry to the President of the Senate, the Speaker of the House of Representatives, and the majority and minority leaders of the Senate and the House of Representatives on August 1 of each year. Section 364.386, F.S., requires that the report address the following four issues:

1. The ability of competitive providers to make functionally equivalent local exchange services available to both residential and business customers at competitive rates, terms, and conditions.
2. The ability of customers to obtain functionally equivalent services at comparable rates, terms, and conditions.
3. The overall impact of competition on the maintenance of reasonably affordable and reliable high-quality telecommunications services.
4. A list and short description of any carrier disputes filed under Section 364.16, F.S.

The Commission is required to make an annual request to local exchange telecommunications providers each year for the data required to complete the report. The data request was mailed on February 17, 2015, and responses were due April 15, 2015. Data requests were mailed to 10 incumbent local exchange companies (ILECs) and 256 competitive local exchange companies (CLECs). The Commission continues its efforts to increase efficiency while gathering the data and information to produce this report. Commission staff is confident that the data presented and the analyses that follow accurately reflect the information provided by the ILECs and the reporting CLECs.

The report also summarizes key events that may have a short term or long term effect on the Florida telecommunications market. National and state telecommunications issues, economic factors, mergers, universal service developments, Federal Communications Commission (FCC) enforcement actions, and state actions are presented to provide a more comprehensive picture of the market in 2014.
Chapter II. Industry Hot Topics

A. Introduction

External events affect how the Florida telecommunications markets react and develop. These effects can occur in a relatively short period of time or take years to filter through the market channels. 2014 was an important year in the development of many significant national issues for telecommunications policymakers. Fundamental technology transitions, open Internet policies, and the beginnings of a complete overhaul of the Communications Act of 1934, as amended (Communications Act), came to the forefront last year. These issues, along with some others described in this chapter, will help create the regulatory foundation for the telecommunications markets for many years.

B. Internet Protocol

The technology transition from Time Division Multiplexing (TDM) to Internet Protocol (IP) continues to accelerate, as do the regulatory issues surrounding it. While the FCC contemplates the regulatory future of IP interconnection, action has begun to occur in the states.

On November 7, 2012, AT&T filed a petition asking the FCC to launch a proceeding to eliminate what AT&T perceived as regulatory barriers affecting investment in Internet Protocol (IP)-based networks. It asked the FCC to approve trials that would allow ILECs to retire their existing TDM services in select exchanges and introduce all-IP services in their place. On January 31, 2014, the FCC invited interested providers to submit detailed proposals to test real-world applications of planned changes in technology likely to have tangible effects on consumers. AT&T submitted its proposal to the FCC on February 27, 2014 to conduct the trials in a rural wire center in Carbon Hill, AL, and in a suburban wire center in Palm Beach County, FL (Kings Point). A few other companies also filed IP trial proposals, including Iowa Network Services and CenturyLink. The FCC did not take official action on AT&T’s proposal, nor any of the other trial proposals. Each trial has gone forward based on the company’s request.

On April 3, 2015, AT&T filed its first quarterly report with the FCC regarding these trials, encompassing the fourth quarter of 2014. While much of the data was filed confidentially, the report showed that customers are voluntarily migrating to IP-based services in the trial areas. AT&T reported consumer legacy accounts declined by 5 percent, while IP accounts increased 12 percent. On the business side, simple business legacy accounts declined by 3 percent and IP

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3 Kings Point is part of the West Palm Beach metropolitan area and includes approximately 50 thousand living units. Residential consumers in the Kings Point exchange are predominately (about 70 percent) over 50 years old and about 9 percent of households have income below poverty level.
accounts also increased 12 percent. AT&T reported that its network performance of the IP technology was “robust.”

AT&T also reported that it conducted significant outreach for both general consumers and special needs groups in the trial. Its work in the West Delray office concentrated on meetings and activities with customers and the general public as well as targeted engagement with seniors and the disability community. AT&T also focused on identifying and connecting with community-based organizations to gain an understanding of the disability community within the trial area. AT&T’s reported outreach plans for 2015 include additional senior technology trainings, additional homeowners’ association meetings, a vendor fair, and outreach to the public schools. Additionally, AT&T reported that it is proactively working on the challenges presented by the trial and is tracking and responding to each concern.

There have also been some regulatory issues regarding IP interconnection that have been debated. Both Michigan and Massachusetts have examined whether IP interconnection agreements should be filed with the states pursuant to sections 251 and 252 of the Communications Act. The Michigan Public Service Commission reversed an arbitration panel and required AT&T to submit an IP agreement under the Act. The Massachusetts Department of Telecommunications and Cable ordered Verizon to file an IP-to-IP agreement “to determine whether the agreement is an ‘Interconnection Agreement’ under 47 U.S.C. § 251 requiring the document to be filed for approval in accordance with 47 U.S.C. § 252.” This case is still pending.

Nationally, CLECs have requested that the FCC find that IP interconnection for voice services is governed by sections 251 and 252 of the Act. CLECs have argued that without these requirements, ILECs are free to exert their last-mile dominance to impose unfair rates. ILECs have asserted that the technology transition to IP is already occurring fairly without such requirements and therefore there is no need for regulatory action. The FCC has not yet ruled on the requests.

**C. Open Internet/Net Neutrality**

On January 14, 2014, the United States Court of Appeals for the District of Columbia (D.C. Circuit) struck down the anti-discrimination and anti-blocking provisions of the FCC’s 2010 Open Internet Order (also known as the 2010 Net Neutrality Order) which required Internet service providers (ISPs) to treat all Internet traffic equally. In *Verizon v. FCC* (case 11-1355), Verizon Communications, Inc., challenged the FCC’s 2010 Open Internet Order, arguing that the FCC exceeded its jurisdiction. The 2010 Open Internet Order adopted rules that required both fixed and mobile broadband ISPs to be transparent about their service terms, service performance, and network management practices. The rules also contained anti-blocking and anti-discrimination provisions.

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6 Ibid.
7 Ibid.
The anti-blocking provisions prohibited fixed broadband ISPs from blocking lawful content applications, services, or non-harmful devices, except as required for reasonable network management. Mobile broadband ISPs were also prohibited from blocking lawful websites or applications that compete with their voice and video services. The anti-discrimination rules prohibited fixed broadband ISPs from engaging in unreasonable discrimination with respect to the transmission of Internet traffic. Examples of these behaviors would include charging companies like Google or Netflix higher fees to deliver their traffic or degrading the quality of certain content unless its creators provided additional compensation to the broadband provider.

The D.C. Circuit upheld the FCC’s authority to regulate broadband Internet access providers’ network management under Section 706 (advanced telecommunications incentives) of the Communications Act. However, it found that the anti-discrimination and anti-blocking rules that the FCC adopted were too similar to the “common carrier” (Title II) obligations and vacated them. Under Title II of the Act, traditional telecommunications carriers must treat all customers equally and cannot block, slow, or discriminate among services.

The D.C. Circuit determined that the FCC “has reasonably interpreted section 706 to empower it to promulgate rules governing broadband providers’ treatment of Internet traffic.” However, even though the FCC has general authority to regulate broadband Internet providers, because the FCC “has chosen to classify broadband providers in a manner that exempts them from being treated as common carriers, the Communications Act expressly prohibits the (FCC) from regulating them as such.”

On February 26, 2015, the FCC adopted further rules addressing Open Internet (or Network Neutrality). These new rules were in response to the court decision in Verizon v. FCC that struck down the FCC’s previous Open Internet rules. These new rules are guided by three principles: America’s broadband networks must be fast, fair, and open. The 2015 Open Internet Order (Order) establishes the FCC’s legal authority by reclassification of broadband Internet access as a telecommunications service under Title II of the Communications Act.

The Order sets three “bright-line” rules of the road for behavior the FCC claims to harm the Open Internet: no blocking, no throttling, and no paid prioritization. The Order also adopts an additional, flexible standard to address future Internet openness rules, and includes mobile broadband users.

The Order applies some key provisions of Title II, and forbears from most others. The Order ensures that some 27 provisions of Title II and over 700 regulations adopted under Title II will not apply to broadband. The Order applies fewer sections of Title II than apply to mobile voice networks.

Subsequently, several parties appealed the order and requested that implementation of the rules be stayed. On June 11, 2015, the D.C. Circuit denied the United States Telecom Association’s

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request for stay but agreed to expedite the proceeding.\textsuperscript{10} The rules became effective on June 12, 2015. Even with an expedited process, it is expected to take several years for this case to wind its way through the courts.

\textbf{D. Federal Preemption}

Two recent FCC cases have brought federal preemption and the balance of state vs. federal jurisdiction to the forefront. The FCC made clear its intent to limit states’ ability to set the parameters for local municipal broadband networks and intrastate inmate calling rates.

In February 2015, the FCC issued an order preempting state laws in Tennessee and North Carolina that prevented two community broadband providers from providing broadband service.\textsuperscript{11} The petitions were filed by the Electric Power Board, a community broadband provider in Chattanooga, Tennessee, and the City of Wilson, North Carolina. In addition to providing electric service, both operate broadband networks providing Gigabit-per-second broadband, voice, and video service.

Tennessee law allows municipal electric systems to provide telecommunications services anywhere in the state, but limits provision of Internet and cable services to the electrical system footprint. By comparison in North Carolina, the state law imposed numerous conditions that effectively precluded Wilson from expanding broadband into neighboring counties, even if requested. One condition, for example, restricted expansion into areas where the private sector delivers service at speeds as slow as 768 kilobits per second (kbps) in the faster direction. The FCC noted that this standard is a fraction of the its 25 Megabits per second (Mbps) download benchmark.

The FCC found that provisions of the laws in North Carolina and Tennessee are barriers to broadband deployment, investment, and competition, and conflict with the FCC’s mandate to promote these goals. The state laws had effectively prevented the cities from expanding broadband service outside their current footprints despite numerous requests from neighboring unserved and underserved communities. The FCC’s order was appealed by both states.

On August 9, 2013, the FCC approved an order to reduce the cost of interstate long distance calls from inmate facilities.\textsuperscript{12} The order concluded that some interstate inmate calling service rates are not just and fair. The order required interstate rates to be cost-based. The rates may include security costs and a reasonable return. While the FCC encouraged states to make similar changes to intrastate rates, the FCC also sought comments for legal bases to compel reform of intrastate

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inmate calling service rates. Other reforms implemented in the order included:

- Setting interim rate caps based on data submitted by providers
- Adopting a debit/pre-paid calling cap of $0.21 per minute
- Presumption of cost-based rates (rebuttable/challengeable) for debit/prepaid card calls at or below $0.12/min and for collect calls at or below $0.14/min

The D.C. Circuit issued an order on January 13, 2014 that stays portions of the FCC’s inmate calling rule. The rules that were stayed included rules that required cost-based rates, established an interim safe harbor, and required annual reporting and certification. This case is still pending.

On October 22, 2014, the FCC issued its Second Further Notice of Proposed Rulemaking on inmate calling services. This notice did not order or implement any new rules, but did make several tentative conclusions and sought comment on a wide variety of topics and alternatives regarding interstate and intrastate inmate calling services. The items the FCC sought comment on included the following:

- Prohibiting site commissions as a category for all interstate and intrastate services but permitting facilities to recover any legitimate costs of provisioning inmate calling services
- Permanent rate caps on local, intrastate, and interstate calling
- Capping and restricting ancillary fees, such as fees to open and maintain calling card accounts
- Ensuring that inmate calling services are accessible for all Americans, including inmates and families with disabilities
- Effective methods of enforcing inmate calling rate rules and reviewing their effect

These two decisions could have an impact on Florida policymakers. Florida has a municipal broadband statute which some may interpret as restrictive and possibly seek FCC preemption. Also, while Florida’s current state-level contracts for inmate calling services include rates below the FCC’s proposed caps, several local confinement facilities (such as some county jails) do not. FCC preemption in this area may affect confinement facilities’ ability to set their own inmate calling rates.

E. Universal Service Reform

The FCC is also in the process of reforming and expanding the Federal Universal Service Fund. The individual programs are discussed in Chapter VIII. It is important to note here that the

reforms have already increased the size of the fund and have the potential to increase it further. Floridians contribute about two dollars for every dollar they receive in benefits from the fund, so an expanding Federal Universal Service Fund as it is currently structured will result in Florida consumers paying twice the additional cost they receive in added benefits.

**F. Communications Act Rewrite**

While all of these issues have been flowing through the states and the FCC at differing paces, there has been renewed interest in Congressional intervention. On December 3, 2013, House Energy and Commerce Committee Chairman Fred Upton (R-MI) and Communications and Technology Subcommittee Chairman Greg Walden (R-OR) announced plans for the Committee to examine and update the Communications Act. The plan was to begin the multi-year process through a series of white papers that would solicit public input. These papers would be followed with a bill sometime in 2015.

The Committee has published six separate white papers, entitled:

- Modernizing the Communications Act
- Modernizing U.S. Spectrum Policy
- Competition Policy and the Role of the Federal Communications Commission
- Network Interconnection
- Universal Service Policy and the Role of the Federal Communications Commission
- Regulation of the Market for Video Content and Distribution

While the white papers have collectively generated nearly 600 responses from industry, academia, and other interested parties, no bill has yet been introduced. It is not anticipated that a comprehensive bill will be considered before the end of 2016. With the comprehensive rewrite at an impasse, many bills have been introduced to address telecommunications issues and the structure of the FCC. The bills cover a number of topics such as taxation of the Internet and process reform. The bills show the significant activity currently surrounding the telecommunications market.

The combination of the proceedings described in this chapter will likely have a significant impact on Florida. It is not anticipated that any of these issues will be resolved before the next publication of this report; they will likely take several years to complete and litigate. However, the core issues discussed here will form the basis of the telecommunications markets for the next generation.

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Chapter III. Wireline Market Overview

A. Economy

According to the U.S. Commerce Department, the national economy continued to recover at a slightly faster pace in 2014 compared to 2013. Gross Domestic Product, the best measure of overall economic activity, grew by 2.4 percent in 2014, compared to an increase of 2.2 percent in 2013. Corporate profits were down 0.8 percent, compared to a 4.2 percent increase the previous year. Profits of domestic financial corporations decreased, while profits of domestic nonfinancial corporations increased. Unemployment figures continued their slow and steady drop in 2014, starting at 6.6 percent in January and finishing the year at 5.6 percent. The Consumer Price Index rose 1.6 percent in 2014, compared to a 1.5 percent increase in 2013.

In 2014, Florida’s economic growth remained positive for the fourth consecutive year. The state’s gross domestic product ranked Florida eleventh in the nation in real growth with a gain of 2.7 percent. Florida’s personal income grew 4.6 percent in 2014 over 2013, also ranking Florida eleventh in the country with respect to state personal income growth. The national average was 2.2 percent.

The unemployment rate in Florida closely tracked the national average throughout 2014. Florida’s unemployment rate continued to show consistent improvement during each month, falling from a high of 6.5 percent in January to a low of 5.7 percent in December.

With the unemployment picture continuing to improve, but still above the period immediately preceding 2008, along with moderate economic growth during 2014, it is likely that Florida consumers are easing slightly on their discretionary expenditures. Increased competition from CLECs and the continued mass migration from wireline to wireless and cable/Voice over Internet Protocol (VoIP) services are likely the primary contributing factors to Florida ILECs losing approximately 480,000 access lines. This represents about 14 percent decline of the ILEC wireline market in 2014. By comparison, competitive wireline carriers (CLECs) lost approximately 289,000 access lines in 2014, a decline of 25 percent.

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17 Ibid., Table 11.
23 Responses to FPSC Local Competition Data Request for 2014 and 2015.


**B. Incumbent Carriers**

AT&T, CenturyLink, and Verizon are the three largest ILECs in Florida providing wireline services. These providers continued to face access line losses in the national wireline market in 2014. While their traditional wireline access line counts fell, both AT&T and Verizon experienced increased wireless subscriptions as well as subscriptions to digital voice services provided over VoIP as consumers transitioned from traditional circuit switched services.

In 2014, AT&T reported losses of 4.7 million switched access lines nationwide (or 19.2 percent) from the prior year. This represents about the same number of wirelines lost in 2013. AT&T attributes the access line declines to economic pressures and increased competition. Customers have disconnected traditional landline services, or switched to alternative technologies, such as wireless and VoIP. AT&T’s strategy continues to be to offset these line losses by marketing its wireless products as well as increasing revenues from customer connections for data and video.

For 2014, AT&T’s total operating revenues increased by $3.7 billion despite their wireline access line losses. The increase in operating revenue was primarily the result of increases in wireless equipment revenues, reflecting the increasing percentage of wireless subscribers choosing smartphones. AT&T capitalized on its opportunity to increase its wireless segment revenues for customers that choose AT&T Mobility as an alternative provider. In Florida, AT&T’s wireline residential access lines decreased by 24 percent and business access lines decreased 14 percent for 2014.

Verizon also lost switched access lines nationally while experiencing an increase in operating revenue of $6.5 billion. Verizon reported a decline of 1.3 million in total voice connections (or 6.1 percent) in 2014. Total voice connections include traditional wireline access lines as well as FiOS digital voice connections. This represents a slower rate of loss than in 2013 when Verizon lost 6.3 percent of its total voice connections. By comparison, Verizon reported growth of 9 and 7 percent in its FiOS Internet and video services from last year, respectively. In Florida, Verizon experienced wireline reductions of 16 percent in residential access lines and 8 percent in business access lines in 2014.

While currently the third largest wireline telecommunications company in the U.S., CenturyLink continued to experience declines in its traditional wireline access lines from 2013 (from 13.0 million in 2013 to 12.4 million in 2014). This represents an approximately 4.4 percent loss of CenturyLink’s access lines nationwide. By comparison, CenturyLink experienced a 1.6 percent increase in broadband subscribers. By the end of 2014, CenturyLink’s operating revenues
increased $64 million, or 0.4 percent from 2013. CenturyLink’s wireline access line loss in Florida was 4 and 8 percent for the residential and business sectors respectively for 2014.33

The seven remaining smaller Florida carriers also experienced contraction in the number of switched access lines in their respective wireline service areas. Rural carriers in Florida saw their total access lines fall by approximately eleven percent in 2014.34 Most of these declines were related to declines in business lines relating to one company, Smart City. Smart City reported that it had changed how its data is being processed for the FCC’s form 477 and it had not seen a significant change in customers. A review of the company’s regulatory assessment fees, which is based on the carrier’s telecommunications revenues, supports the assertion that it experienced little change from the prior year (about 2.4 percent). A representative from Smart City indicated that it would be looking closer at its reporting methodology.

In Florida, Windstream is the largest of the “rural” ILECs and operates in northeast Florida. Nationally, Windstream has 1.6 million consumer voice lines in service.35 In the first quarter of 2015, Windstream completed the spin-off of copper and fiber network assets into a separate real estate investment trust.36 The trust will lease use of the assets to Windstream through an exclusive long-term lease. According to Windstream, the tax-free spin-off should provide financial flexibility by lowering long-term debt and potentially allowing Windstream to accelerate broadband investments, transition faster to an IP network, or pursue additional growth opportunities. Windstream has committed to the FCC to make 10 Mbps Internet available to at least 80% of its customer base by 2018.37

Even with the decline in wireline access lines, wireline telecommunications carriers continue to play a role in an evolving telecommunications market. For example, wireless carriers continue to be dependent on the wireline network. The majority of wireless call transport occurs over the wireline network, not over wireless facilities, a function commonly referred to as “backhaul.” While the economic sustainability of the wireline network appears to be tenuous as access lines continue to decline, it remains a crucial element in the mix of communications technologies.

C. Mergers/Acquisitions

Approval of merger and acquisition petitions for telecommunications carriers peaked nationally in 2006 with more than 90 communications companies consolidating their operations.38 By comparison, 54 mergers and acquisitions occurred in 2014.39 This figure represents an increase of 13 percent from the previous year. Recent transactions of interest to Florida are described below.

33 Responses to FPSC Local Competition Data Request for 2014 and 2015.
34 Ibid.
1. **Frontier/Verizon**

Frontier Communications and Verizon Communications have filed a series of applications with the FCC seeking approval for the transfer of control of Verizon's landline licenses and authorizations in California, Florida, and Texas to Frontier. Frontier provides telecommunications and broadband services to approximately 4 million customers in 28 states in predominantly rural areas and small and medium sized cities. Verizon, a nationwide telecommunications company, has approximately 3.7 million voice connections, 2.2 million broadband (DSL and FiOS) connections, and 1.2 million FiOS video connections in California, Florida, and Texas, which Frontier will acquire if the applications are approved. Subject to regulatory approval, the transaction is expected to close in the first half of 2016.

2. **Level 3/tw telecom**

Level 3 Communications announced it completed its acquisition of tw telecom in October 2014. The combined company owns 200,000 miles of fiber-optic network that connects more than 50,000 business customers worldwide. It boasts that eight out of the largest ten U.S. banks and six of the world’s top ten financial exchanges use its services. As a result of the acquisition, Level 3 becomes one of the larger competitive carriers in the Florida market place.

3. **Comcast/Time Warner Cable**

Comcast and Time Warner Cable announced their planned merger in the first quarter of 2014. The Federal Communications Commission (FCC) and the Department of Justice began their formal regulatory approval process of this transaction. Consumers expressed opposition to the merger, noting that Comcast has raised its basic cable rates in some of its markets by nearly 70 percent. In general, consumer groups argue that the cable and broadband markets will not be as competitive as they should be and this merger will continue to consolidate market power. After mounting pressure to forestall the merger, Comcast and Time Warner Cable filed a letter on April 24, 2015 with the FCC announcing that they had terminated their merger plan and requested the FCC close its docket.


4. Charter Communications / Time Warner Cable / Bright House Networks

On May 26, 2015, Charter Communications and Time Warner Cable announced that they had entered into an agreement for Charter to merge with Time Warner Cable. In addition, Charter and Bright House Networks announced that the two companies had amended the agreement which the parties announced on March 31, 2015. The amendment addressed that the New Charter will own approximately 86 to 87 percent of the consolidated companies. The combined companies will provide video, broadband services, and voice services to 23.9 million customers in 41 states, including Florida. The combined New Charter’s size would continue to be less than that of Comcast. By way of comparison in 2014, Comcast had 22 million broadband consumers, while the New Charter would have approximately 19.4 million broadband customers. The three companies expect to close the announced transactions by the end of 2015.

5. AT&T / DirecTV

On May 18, 2014, AT&T and DirecTV announced they had entered into a definitive agreement under which AT&T will acquire DirecTV. The merger is subject to approval by DirecTV shareholders and review by the FCC, the Department of Justice, a few states, and some Latin American countries. AT&T already markets DirecTV’s satellite video service to customers where its own U-verse video offering is not available. It is expected that this merger would give the combined company greater leverage in negotiations with content providers. On July 24, 2015, the FCC approved AT&T’s acquisition of DirecTV and merger of the two companies into one combined entity. As part of the merger, AT&T-DirecTV will be required to expand its deployment of high-speed, fiber optic broadband Internet access service to 12.5 million customer locations as well as to E-rate eligible schools and libraries. In addition, AT&T-DirecTV is prohibited from using discriminatory practices to disadvantage online video distribution services and will submit its Internet interconnection agreements for Commission review. Finally, AT&T-DirecTV will offer broadband services to low-income consumers at discounted rates.

Chapter IV. Status of Wireline Competition in Florida

A. Wireline Trends in Florida

During 2014, total traditional wireline access lines for ILECs and CLECs combined declined 17 percent, to 3.8 million as of December 2014, from 4.5 million in December 2013. VoIP lines reported by CLECs and cable companies are not included in wireline CLEC market share analyses. Unlike last year, most of the lost access lines resulted from lower demand by business customers.

Residential access lines, which totaled 1.6 million as of 2014, fell by 16 percent from the previous year. From 2004 through 2014, wireline residential access lines have declined by 78 percent, or about 6 million lines. By comparison, total wireline business access lines for ILECs and CLECs were 2.2 million, a decrease of 17 percent from 2013 to 2014.

The net decrease was comprised of a decrease of 184,000 ILEC business lines and a decrease of 272,000 CLEC business access lines. Of the incumbent carriers, AT&T and CenturyLink experienced the largest business line losses of about 130,000 and 24,000 business lines from last year, respectively. Historical data from 2011 through 2013 were corrected for CLEC business line data misreported to the FCC and FPSC. Figure 4-1 illustrates the overall trend in Florida for both residential and business lines (and does not include VoIP connections). Based on the revised data, both residential and business lines appear to be declining at a similar rate.

Figure 4-1
Florida Wireline Access Line Trends

Source: Responses to FPSC data requests (2009-2015)
B. Wireline Market Mix, Market Share, and Access Lines

1. Market Mix

The composition of customers served by ILECs and CLECs has shifted over time. In general, both ILECs and CLECs have seen increased concentration of business customers as residential customers migrate to wireless and VoIP services. The business-to-residential customer mix for ILECs was about 30 percent business and 70 percent residential in 2004. By 2014, the mix for ILECs was 45 percent business and 55 percent residential. By comparison, the business to residential customer mix for CLECs was about 63 percent business and 37 percent residential in 2004. The CLEC customer mix has seen significant changes since then. In 2014, the CLEC business-to-residential customer mix was 99 percent business and 1 percent residential.

2. Market Share

CLECs have traditionally focused on business customers. Figure 4-2 illustrates the CLEC market share by business and residential customer classes. The inverse of this percentage would be market share for the ILECs in Florida. Overall, the CLEC residential market share has remained at about 2 percent over the last four years, while ILECs retain about 98 percent of the residential wireline market. This percentage excludes VoIP services, which cable companies have made significant inroads into over the past several years. The CLEC business market share, however, has begun to experience similar declines to that of the residential market. Last year’s report noted that for the first time the CLEC market share of business lines was greater than that of the ILECs. The revisions to historical data recast the success of the CLEC business market in Florida. Based on the revised data it appears that CLECs had only captured 42 percent of the wireline business market in Florida and have experienced declines in that shrinking market.

![Figure 4-2 Florida Residential & Business CLEC Market Share](image)

The FCC also reports CLEC market share by state and for residential and business lines. For December 2013, the FCC reported that CLECs have 49 percent of the total residential market
share and 51 percent of the business market share; however, these percentages include VoIP subscriber lines.\textsuperscript{51}

The inclusion of VoIP subscriber lines accounts for the majority of the difference in market share totals calculated by the FPSC compared to those reported by the FCC for 2013.\textsuperscript{52} Specifically, removing the associated VoIP lines from the FCC’s market data results in a CLEC residential and business market share of 2 percent and 44 percent, respectively. This compares favorably with the data based on the FPSC’s data collection in Figure 4-2.

3. Access Lines

Local exchange companies were serving approximately 3.8 million lines in Florida as of December 31, 2014, a decline of 17 percent from 2013. The first time that total (ILEC and CLEC) business access lines exceed total ILEC and CLEC residential access lines was in 2011. The gap between the number of residential and business access lines has become relatively stable since then as illustrated in Table 4-1 and Figure 4-1.

In 2014, residential access lines provided by ILECs decreased by 15 percent, while ILEC business lines declined by 12 percent. Most of the business line losses were experienced by AT&T with declines of 14 percent from last year. While the rural ILECs also experienced business line losses, one carrier’s reported losses significantly eclipsed all other carriers’ losses from last year as noted in Chapter III.

After removing the one outlier’s data from the rest of the rural ILEC data, the percent decline for 2014 was 4.7 percent. This compares to only a 2.2 percent decline from the prior year for rural ILECs. CLEC business access lines, however, saw a decrease by approximately 272,000 from 2013 to 2014, a loss of 24 percent. Based on revised data, CLEC business lines also experienced a decline of 19 percent from 2012 to 2013.

![Table 4-1 Florida Wireline Access Line Comparison](image)

<table>
<thead>
<tr>
<th></th>
<th>Res</th>
<th>Bus</th>
<th>Total</th>
<th>Res</th>
<th>Bus</th>
<th>Total</th>
<th>Res</th>
<th>Bus</th>
<th>Total</th>
<th>Change from 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILECs</td>
<td>2,334,184</td>
<td>1,675,328</td>
<td>4,009,512</td>
<td>1,909,401</td>
<td>1,515,261</td>
<td>3,424,662</td>
<td>1,613,516</td>
<td>1,331,481</td>
<td>2,944,997</td>
<td>(14%)</td>
</tr>
<tr>
<td>CLECs</td>
<td>44,667</td>
<td>1,378,547</td>
<td>1,425,214</td>
<td>38,711</td>
<td>1,113,762</td>
<td>1,152,473</td>
<td>21,651</td>
<td>841,880</td>
<td>863,531</td>
<td>(25%)</td>
</tr>
<tr>
<td>Total</td>
<td>2,380,851</td>
<td>3,053,875</td>
<td>5,434,726</td>
<td>1,948,112</td>
<td>2,629,023</td>
<td>4,577,135</td>
<td>1,635,167</td>
<td>2,173,361</td>
<td>3,808,528</td>
<td>(17%)</td>
</tr>
</tbody>
</table>

Source: Responses to FPSC data requests (2013-2015)


\textsuperscript{52} Ibid.
C. Competitive Market Trends

1. Residential Wireline Access Line Trends

Figure 4-3 displays the wireline residential access line trends separately for AT&T, Verizon, CenturyLink, the rural aggregate ILECs, and aggregate CLECs. All but one ILEC reported a decline in residential access lines from December 2013 to December 2014. The one rural ILEC that did report an actual residential access line gain experienced a gain of about 1 percent.

![Florida Residential Wireline Trends by ILECs and CLECs](image)

Source: Responses to FPSC data requests (2012-2015)

Residential access lines declined for Verizon and CenturyLink at a slower rate than last year. By comparison, AT&T experienced a slight increase in the rate of residential access line loss for the last two years. CLECs also faced residential access lines decline in 2014, significantly higher than that of the last two years at over forty percent.
2. Business Wireline Access Line Trends

Figure 4-4 displays the business wireline trends for AT&T, Verizon, CenturyLink, the aggregate rural ILECs, and aggregate CLECs. Both ILECs and CLECs' business access lines are trending downward. CLEC business access lines have been revised significantly from last year’s report. Most of these changes are the result from reporting errors from a relatively few large CLECs. For 2014, AT&T and Verizon continue to have about a 50 percent split between residential lines and business lines as they did in 2013.

**Figure 4-4**

*Florida Business Wireline Trends by ILECs and CLECs*

Source: Responses to FPSC data requests (2012-2015)
Chapter V. Wireless, VoIP, and Broadband

A. Wireless

Subscribership to wireless devices continues to grow throughout the United States. According to CTIA – The Wireless Association, wireless penetration in the U.S. now exceeds 110 percent of the U.S. population, thus implying that some consumers own more than one device.\(^{53}\) Figure 5-1 shows national trends in the percentage of households with wireless only, wireline only, and dual household usage. In 2014, 45.4 percent of Americans lived in wireless-only homes, up 4.4 percent from 41.0 percent in 2013.\(^{54}\) During the same period, the percentage of households with both wireline and wireless service declined 5.0 percent, to 42.7 percent.\(^{55}\)

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55 Ibid
By the end of 2014, wireless only households surpassed the number of households with both wireline and wireless service for the first time. Poor indoor reception may be a reason some households are not unsubscribing their home landlines as a recent study may suggest. Among households with both landline and wireless telephones, 34.8 percent received all or almost all calls on wireless telephones. These wireless-mostly households make up 14.9 percent of all U.S. households in 2014.

In 2014, most demographic groups have seen a slight increase in wireless usage and subscribership. More than two-thirds of adults between the ages of 25 to 34 live in households with only wireless telephones. The percentage of wireless only households decreased as age increased.

1. Devices, Networks, and Usage

Since 2009, U.S. smartphone ownership has grown about 10 percentage points every year. By the end of 2014, it reached 75 percent of wireless users. At the same time, ComScore reported modest evidence of deceleration in further smartphone ownership. This could suggest a saturation point. Among equipment manufacturers, Apple and Samsung remain the leaders maintaining 41.6 percent and 29.7 percent of the market share, respectively.

To meet the increase in demand for mobile services, wireless carriers invested more than $32 billion into the U.S. economy in 2014 capital expenditures. Among wireless network providers, AT&T Mobility (120.5 million subscribers), Verizon Wireless (108.2 million subscribers), Sprint Corporation (55.9 million subscribers), and T-Mobile US (55.0 million subscribers).
are the four largest wireless service providers in the United States. Figure 5-2 shows the relative market share of the top five providers. AT&T increased its share of the wireless market in 2014 (35 percent), while Verizon market share declined slightly (32 percent). By comparison in 2013, Verizon served more of the wireless market (35 percent) than AT&T (32 percent).

**Figure 5-2**

U.S. Wireless Subscribers as of December 31, 2014

For 2014, the Pew Research Internet Project reported on predominant smartphone activities in the U.S. According to its data, 97 percent of respondents reported using their smartphones to send or receive text messages. Ninety-three percent of respondents use their phone to make and receive voice or video calls. Eighty-eight percent of respondents also indicate that they use their phone to send or receive email. By comparison, 89 percent use their phone to access the Internet. Approximately 41 percent of respondents also use their phone to download software applications, get directions, or to listen to music. In terms of aggregate use of wireless data, CTIA – The Wireless Association reports that consumers used 26 percent more data in 2014 than in the preceding year.

2. Florida Trends

Florida’s total population grew from an estimated 19,552,860 at the end of 2013 to 19,893,297 by the end of 2014. By comparison, the number of wireless subscribers in Florida reached a

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total of 18,985,000 by the end of 2013. This means that there are nearly as many wireless handsets in Florida as there are people.

Florida-specific data for wireless ownership is not available for 2014; however, if previous trends continue, Florida will likely see a decline in wireline ownership and a corresponding increase in wireless subscribership. Between 2010 and 2013, Florida’s adoption rate of wireless handsets tracked the national trend. There is no reason to believe the substitution rate will be changing appreciably. Figure 5-3 illustrates that ILECs continued to lose wireline subscribers to competitors and affiliated wireless companies. The wireline data below includes both traditional circuit switched access lines and interconnected VoIP lines.

![Figure 5-3](source: FCC, Local Competition Report)

**B. Voice over Internet Protocol (VoIP)**

Interconnected VoIP services represent a growing sector of the voice services market. Nationally, the number of residential and business customers who subscribe to interconnected VoIP services has increased each year. Florida has also experienced a significant increase in VoIP subscribership. The use of VoIP is expected to grow over the next five years to become the underlying technology for delivering voice over telecommunications infrastructure.

According to the FCC’s most recent data, there were approximately 37.7 million interconnected residential VoIP subscribers and 10.3 million business subscribers nationwide as of December 2013.

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2013.\textsuperscript{75} This represents an increase of roughly 13 percent of total interconnected VoIP subscribers nationally since December 2012.\textsuperscript{76} To date, the FCC has not released any data regarding subscribership of interconnected VoIP services for 2014. However, data collected by the FPSC shows an estimated 2.8 million residential interconnected VoIP service subscribers in Florida as of December 2014.\textsuperscript{77}

1. National Market Analysis

Half of all residential wireline customers in the U.S. use VoIP services.\textsuperscript{78} However, roughly 80 percent of residential VoIP subscribers do not purchase VoIP services from an ILEC.\textsuperscript{79} Instead, most VoIP customers often opt to purchase services through their cable providers as part of a bundled service package. As a result, cable companies have continued to maintain their dominance in the residential VoIP market.

Despite the cable providers’ large presence in the VoIP market, traditional wireline carriers, such as AT&T and Verizon, have been able to gain some market share as more consumers take advantage of their fiber-based services. Other ILECs and CLECs have also experienced an increase in VoIP subscribership.

a. Facilities-Based VoIP Providers

ILECs, CLECs, and cable companies all provide interconnected VoIP services. However, cable companies dominate the facilities-based residential VoIP market with an estimated 29.7 million VoIP subscribers as of December 2013.\textsuperscript{80} More recent data is available from publicly traded carriers. Comcast, the largest cable provider, had an estimated 11.2 million VoIP subscribers at year-end in 2014.\textsuperscript{81} This represents a 5 percent increase from year-end 2013. Time Warner Cable, the nation’s second largest cable provider had an estimated 5.6 million subscribers.\textsuperscript{82}

While all of the large cable companies continue to experience growth in VoIP subscribership, the rate of growth has decreased. Between 2007 and 2009 the number of residential VoIP subscribers more than doubled. However, in 2010 cable VoIP providers began reporting slower yearly subscriber growth rates. This decrease can be partially attributed to consumers choosing wireless phone service rather than home phones.\textsuperscript{83}

\textsuperscript{77} Responses to FPSC Local Competition Data Request 2015.
\textsuperscript{78} Ibid.
\textsuperscript{79} Ibid, Tables 10 and 11.
\textsuperscript{80} Ibid, Tables 10 and 11.
Another contributing factor is the loss of market share concentration. For years, the largest cable VoIP providers led the market and earned the vast majority of the revenue within the industry. However, over the last few years their market share concentration has declined due to an increase in competition from the emergence of free and low cost VoIP providers.

Wireline telephone companies continue to deploy facilities-based VoIP services over fiber-based facilities. While AT&T and Verizon continue to show losses in traditional voice access lines, both companies reported gains with their other services offerings. AT&T reported approximately 4.8 million U-verse voice subscribers at year-end 2014.\(^\text{84}\) This represents a 24 percent increase from the previous year. Verizon reported approximately 4.6 million FiOS Digital Voice subscribers as of December 2014, an increase of roughly 8 percent from the previous year.\(^\text{85}\)

b. Over-the-Top VoIP Providers

Over-the-top providers offer low-priced stand-alone interconnected VoIP service.\(^\text{86}\) The service quality of these VoIP providers varies because calls are transmitted over the public Internet rather than privately managed IP-based networks. The price advantage over the bundled services offered by facilities-based VoIP providers has allowed the over-the-top VoIP providers to attract customers. As a result, over-the-top VoIP is expected to grow at a compound rate of 20 percent between 2012 and 2018.\(^\text{87}\)

Vonage, 8x8, Inc., Skype, Google, and magicJack are a few of the leading over-the-top VoIP providers. Some of these companies have also introduced mobile VoIP services that take advantage of consumers’ mobile broadband connections to offer service.\(^\text{88}\) The adoption of mobile VoIP services is rapidly increasing. It is anticipated that by 2015, the number of mobile VoIP subscribers will have increased 10-fold from 2010.\(^\text{89}\)

Reliable information on subscribership is not widely available for over-the-top providers. Some available data suggest that certain market segments are performing better than others. The data also suggests that the market may be maturing due to slower growth rates. For instance, 8x8, Inc., which almost exclusively focuses on the business market, reported an increase in subscribership of roughly 18 percent for 2014 compared to a 14 percent increase in 2013 and a 17 percent increase in 2012.\(^\text{90}\) Prior to 2008, Vonage reported yearly increases in subscribership.

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\(^\text{86}\) The phrase “over-the-top VoIP” refers to a VoIP service that requires a consumer to obtain broadband access from another company.


\(^\text{88}\) Mobile VoIP or mVoip is a communication technology platform that allows you to send and receive voice calls on a mobile device as digital signals over the Internet using voice over IP technology.


lines. However, each year between 2008 and 2012 Vonage reported a decline in subscribership. The total number of subscriber lines declined by 247,340 during this time period. At year-end 2013 Vonage reported approximately 2.5 million subscribers, an increase of roughly 8 percent from 2012.\(^{91}\) However, subscriber lines decrease by approximately 3 percent in 2014.\(^{92}\)

### 2. Florida Market

The Commission does not have jurisdiction over VoIP services. As a result, the ability to determine an accurate estimate of the total number of VoIP subscribers in Florida is limited. However, several ILECs and CLECs in Florida voluntarily responded to the Commission’s data request and provided information on the number of residential VoIP subscribers. The Florida Cable Telecommunications Association also reported residential VoIP line data for its six largest member providers. Based on the analysis of the available data, there are an estimated 2.8 million residential interconnected VoIP subscribers in Florida. While this represents roughly the same number of residential VoIP lines as last year, the share of residential VoIP services provided by telecommunications carriers has increased at the expense of cable companies. Figure 5-4 shows the number of residential interconnected VoIP subscribers in Florida by provider type.

![Figure 5-4: Florida Residential Interconnected VoIP Subscribers](source: Responses to FPSC data request (2011-2015))

While the FPSC received business VoIP data from telecommunications carriers, corresponding data was not made available from most cable companies as requested. Data is however available from the FCC that provides VoIP business lines. Figure 5-5 identifies the number of interconnected VoIP business lines by ILEC and non-ILEC carriers. Such non-ILEC carriers

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would include cable companies. While non-ILECs have seen a 51 percent increase in the number of business VoIP lines between 2010 and 2013, ILEC growth was 181 percent for the same period.

![Figure 5-5 Florida Business Interconnected VoIP Subscribers](image)

Source: FCC, Local Telephone Competition: Status as of December (2010-2013)

**C. Broadband**

1. **National Broadband Trends**

Having access to a high speed Internet connection has become extremely important in our society as more people rely on the Internet to complete daily tasks and for entertainment purposes. For instance, many people now use the Internet to access health care information, look for employment, complete schoolwork, and to stream movies. As a result, high speed access to the Internet at home has risen steadily in recent years. According to the Census Bureau’s most recent report on computer and Internet usage, approximately 73 percent of U.S. households have a high speed Internet connection.93

Not only is the Internet used for various purposes, the method by which individuals access the Internet also varies. Roughly 43 percent of households with a broadband connection connect via a cable modem while 33 percent use mobile broadband connections. Twenty-one percent of U.S. households connect via DSL and 1 percent of households use dial-up to connect to the Internet. The report also indicated that approximately 25 percent of U.S. household do not subscribe to any type of paid Internet subscription at all. Figure 5-6 displays the percentage of households by type of high speed Internet connection subscribership. The category of “No Paid Internet Subscription” includes households without any Internet use at home and households connecting without a paid subscription.

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The most recent report published by the FCC, indicates that 50 percent of U.S. households have fixed broadband connections with download speeds of at least 3 Mbps. By comparison, 72 percent have fixed broadband connections with download speeds of at least 200 kbps or greater.94

Demographic groups that are more likely to have broadband connections within their homes include households with relatively young members, Asian and White households, and households that are affluent and highly educated. Households located within metropolitan areas are also more likely to have broadband connections. Other minority households, low income individuals, and those without a college education are less likely to have high speed internet connections within their homes.95

2. Florida Broadband Trends

According to the FCC’s most recent report, 63 percent of households in Florida have fixed broadband connections with download speeds of at least 3 Mbps and 78 percent have fixed broadband connections of 200 kbps or greater.96 Cable modem services accounted for approximately 63 percent of non-mobile broadband connections in Florida with download speeds

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greater than 200 kbps. Mobile broadband connections accounted for 65 percent of all broadband connections in Florida with download speeds greater than 200 kbps.

Reflecting advances in technology, market offerings by broadband providers, and consumer demand, the FCC updated its broadband benchmark speeds to 25 Mbps for downloads and 3 Mbps for uploads. The FCC found that its 4 Mbps standard set in 2010 was dated and inadequate for evaluating whether advanced broadband is being deployed to all Americans in a timely way.

Figure 5-7 illustrates the FCC’s fixed broadband deployment results described in the 2015 Broadband Progress Report. It relies on data from the National Broadband Map, as of December 31, 2013. It shows which areas in Florida have access to fixed broadband services of at least 25 Mbps download and 3 Mbps upload. The map also distinguishes between urban and rural areas.

Companies continue to invest in network improvements to provide greater Internet connectivity. For example, AT&T has expanded its U-verse High Speed Internet 75 to nine new markets. The service offers download speeds at up to 75 Mbps in more than 70 markets across all or parts of 100 cities in 21 states. Two cities in Florida, Gainesville and Panama City, are part of the latest expansion taking place this summer. Introductory prices have been set at $39.95 per month when bundled with other U-verse services.

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Figure 5-7
Fixed 25 Mbps Broadband Deployment Map

Source: FCC, National Broadband Map
Chapter VI. Competitive Market Analysis & Statutory Issues

The Commission is required to address four specific issues in its annual report on telecommunications competition as stated in Section 364.386, F.S. These issues emphasize analysis of the impact of competition and regulatory changes on the telecommunications market.

A. Statutory Issue - Competitive Providers

The ability of competitive providers to make functionally equivalent local exchange services available to both residential and business customers at competitive rates, terms, and conditions.

In Florida, the total number of access lines decreased by 17 percent in 2014. CLEC lines decreased 25 percent between December 2013 and December 2014 due to declines in business lines. Based on revised data, CLEC business line losses began in 2012. Total CLEC wireline market share in Florida decreased to 23 percent in 2014 from 25 percent in 2013.

Wireless carriers experienced growth in the number of wireless subscribers in Florida. In October 2014, the FCC reported that there were 19 million handsets in service. In addition, residential VoIP subscribership accounted for nearly 2.8 million connections by December 2014. Business VoIP subscribership in Florida has grown a little over 60 percent from 2010 through 2013 and represents a growing segment of the industry with 566 thousand connections.

In general, the ILECs and CLECs face a declining wireline residential and business market. Residential VoIP did not experience any growth from last year. By comparison, there appears to be significant growth in the business VoIP segment of the market. Wireless subscribership continues to grow both nationally and in Florida, impacting the wireline residential market.

This data suggests that CLECs, VoIP, and wireless carriers are able to provide functionally equivalent services to residential and business customers at rates, terms and conditions acceptable to consumers. The number of CLECs offering a variety of services also indicates the availability of functionally equivalent services at comparable terms. Other services offered by CLECs that reported providing local service include:

- Bundles including services other than local voice (54 CLECs)
- VoIP (64 CLECs)
- Broadband Internet access (54 CLECs)
- Video service (7 CLECs)

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99 Responses to FPSC data requests 2014.
The majority of CLECs reported no barriers to competition or elected not to respond in the comment portion of the survey. Those carriers that did provide comments to the Commission regarding barriers, however, represent approximately 50 percent of CLEC business market in Florida. Those companies expressed concern regarding:

- The actions of some ILECs to unilaterally decide that a contract is not an interconnection agreement and, therefore, remove the Commission from its statutory role. Such actions impede competition because it forecloses the opportunity for CLECs to either opt into such agreements or for the Commission to review them for discriminatory terms.

- The transition to an all IP network could have anticompetitive outcomes if left unchecked. Specifically, CLECs are concerned that the transition will be used as a means to eliminate or significantly limit the availability of last mile facilities. Thus, thoughtful consideration of the impact of the IP transition is needed.

- The large ILECs are seeking to use the IP transition as an excuse to construct new barriers to competition in Florida's local exchange markets and thereby increase prices for non-residential customers. AT&T charges 8 times more for a basic connection in IP versus TDM in its Kings Point, Florida Trial site ($1,075 for 2 Mbps in IP vs. $126 for 1.5 Mbps in TDM). Competitors often must employ ILEC infrastructure to reach customers in the last mile preceding individual locations. Competitive carriers do not become magically “unimpaired” when the mode of transmission changes to IP.

- The continuation of concurrent jurisdiction and cooperation between the Commission and the FCC is critical to maintaining an industry structure that prohibits anticompetitive behavior and the detrimental use of market power. Regarding the IP transition, a key concern for carriers is the identification of replacement services which the FCC has said must be comparable in price and quality to the services being discontinued.

- In the areas where the ILEC is required to pass credits onto CLECs for the promotions that it runs for retail, ILECs have added products to those promotions so that CLECs are not allowed to offer the promotion. This creates an unfair competitive advantage.

Conclusion: Subscribers to VoIP and wireless services continued to increase in 2014, reflecting the opportunity for customers to seek out services from providers other than traditional ILECs. Many CLECs reported offering a variety of services and packages comparable to those offered by ILECs. All of these factors contribute to the conclusion that competitive providers are able to offer functionally equivalent services to both business and residential customers. We note that the CLECs have not filed a petition with the FPSC to address the issues above. Some of these issues may be addressed by the FCC.

B. Statutory Issue – Consumers

The ability of consumers to obtain functionally equivalent services at comparable rates, terms, and conditions.

Customers may obtain functionally equivalent services via wireline telephony, wireless telephony, or VoIP. The primary focus of this report is the provision of wireline telecommunications by ILECs and CLECs, which submit responses to the FPSC’s annual data
request. As of December 31, 2014, 72 CLECs provided data indicating that they provide local voice service in Florida. In contrast, last year 87 CLECs responded, continuing the gradual decline in the number of CLECs providing service.

CLECs can offer service through resale of an ILEC’s or a CLEC’s wholesale services, by using its own facilities, by leasing portions of its network from an ILEC, or a combination of any of these methods. Figure 6-1 provides a historical view of CLEC market share of the traditional wireline access line market in Florida. According to the data collected for this report, 23 percent of total traditional wireline access lines in Florida are provided by companies other than ILECs as of December 2014.

![Figure 6-1
Florida CLEC Market Share](image)

Source: Responses to FPSC data requests

ILEC business lines fell 12 percent in 2014, while CLEC business lines fell 24 percent. While the Commission does not have data for 2014, non-ILEC VoIP business lines grew 154 percent from 2012 to 2013. This suggests that business customers have the ability to find reasonable pricing packages with CLECs and are taking advantage of these options. These options include CLEC cable companies and in some cases, wireless providers. Residential ILEC lines decreased 15 percent in Florida in 2014, while nationally, wireless-only households continued to grow, reaching 45.4 percent through December 2014.101

As reported in Chapter V of this report, there are approximately 2.8 million interconnected residential VoIP subscribers in Florida.102 These and other factors demonstrate that customers

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102 Responses to FPSC Local Competition Data Request for 2014.
are able to find comparable services at reasonable prices through wireless, CLEC, and VoIP providers.

**Conclusion:** Residential and business lines have maintained a steady decline over the past several years (see Figure 4-1). By comparison, wireless-only households continue to grow consistent with the trend over the past several years. While declines have occurred in the business market, they are partially offset by significant growth in business VoIP lines. Providers are managing the changes in market conditions by bundling services and providing a variety of pricing plans in an attempt to meet consumer demand.

**C. Statutory Issue – Affordability & Service Quality**

The overall impact of competition on the maintenance of reasonably affordable and reliable high-quality telecommunications services.

The FCC reported that 94.1 percent of Florida households had telephone service in 2014, lower than the national penetration rate of 96.1 percent. As shown in Figure 6-2, the Florida telephone penetration rate has consistently been below the national penetration rate and the gap has varied little between 2009 and 2014. This gap persists despite successful efforts in recent years by Florida carriers and the FPSC to make Lifeline benefits more accessible to eligible low-income consumers.

![Figure 6-2](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-330829A1.pdf)

**Figure 6-2**

Telephone Service Penetration: Florida vs. Nation

<table>
<thead>
<tr>
<th>Year</th>
<th>Florida</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>95.7%</td>
<td>96.1%</td>
</tr>
<tr>
<td>2010</td>
<td>95.8%</td>
<td>95.9%</td>
</tr>
<tr>
<td>2011</td>
<td>95.7%</td>
<td>95.9%</td>
</tr>
<tr>
<td>2012</td>
<td>95.9%</td>
<td>96.1%</td>
</tr>
<tr>
<td>2013</td>
<td>95.9%</td>
<td>96.1%</td>
</tr>
<tr>
<td>2014</td>
<td>94.1%</td>
<td>95.9%</td>
</tr>
</tbody>
</table>

Source: FCC, Telephone Subscribership & USF Monitoring Report

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The Centers for Disease Control and Prevention (CDC) released a report on wireless substitution for the period July-December 2014 and found that 45.4 percent of adults live in wireless-only households. While state-specific data on wireless-only households was not provided in the most recent CDC report, a December 2014 report containing state-level data noted that 42.6 percent of Florida’s households are wireless only households in 2013. The same report found 7.3 percent of Florida adults living in households with only a wireline phone. It also found that 3.3 percent of Florida adults living without any form of telephone service. Data from both the FCC and the CDC suggests that most Florida households are able to afford telephone service and have access to a variety of service providers, including ILECs, CLECs, VoIP, and wireless. This data also supports the fact that many consumers choose to subscribe to more than one type of telephone service.

Historically, regulatory reliability standards have applied to landline telecommunications service making it the most reliable telecommunications service. Reliability in landline networks is no longer insured as many states, including Florida, eliminated service quality standards. Given the continued growth of interconnected VoIP and wireless-only households, and the continued erosion of landline access lines, it appears that the reliability of these alternatives is acceptable to consumers. Moreover, mobility, pricing, and the demand for data-based services are consumer preference factors that may be changing how consumers view reliability.

Conclusion: Based on the continued growth of interconnected VoIP and wireless-only households and the ongoing erosion of wireline access lines, network reliability of non-ILEC providers appears to be sufficient. The telephone penetration rate of 94.1 percent supports the conclusion that the vast majority of Florida residents are able to afford telephone service. The number and variety of competitive choices among all types of service providers suggest that competition is having a positive impact on the telecommunications market in Florida.

D. Statutory Issue – Carrier Disputes

A listing and short description of any carrier disputes filed under Section 364.16, F.S.

Conclusion: The number of docketed and informal intercarrier complaints remained relatively stable in 2014. This information can be found in Appendix B.


106 Ibid.
Chapter VII. State Activities

The Commission dealt with several intercarrier and compliance issues during the past year. The following is a summary of activities affecting local telecommunications competition in 2014.

A. Intercarrier Matters

1. CompSouth Petition for Rulemaking on Expedited Complaints
On July 31, 2012, the Competitive Carriers of the South, Inc. (CompSouth) filed a Petition to Initiate Rulemaking to Revise and Amend Portions of Rule 25-22.0365, F.A.C. Specifically, CompSouth sought to revise portions of the Expedited Dispute Resolution Rule to “enable quicker resolution of cases where a consumer is without service or suffers impaired service as a result of a dispute between telecommunications carriers.” Rule development workshops were held on November 15, 2012, and August 20, 2013. CompSouth requested additional time to work out compromise language with other carriers. The Commission approved rule language on May 9, 2014, adopting a combination of language from CompSouth, other carriers, and Commission staff.

2. FLATEL v. AT&T Billing/Promotional Credit Complaint
On December 10, 2013, FLATEL, Inc. initiated an informal request to renew billing and promotional credit disputes from a complaint the Commission previously dismissed without prejudice. FLATEL filed a Motion to Amend its previous case on December 30, 2013. FLATEL claimed that it was unlawfully billed for promotional credits, claiming “AT&T offers immediate relief via Promotions to its End Users without parity to instantly offer the same exact relief to FLATEL’s End Users.” The Commission dismissed FLATEL’s complaint, with prejudice, on June 5, 2014, due to FLATEL’s failure to meet filing requirements.

3. Communications Authority v. AT&T
On August 20, 2014, Communications Authority, Inc. (CA) filed an arbitration petition between it and AT&T Florida. CA seeks resolution of certain issues arising with AT&T Florida in the negotiation of an interconnection agreement pursuant to Section 252(b) of the Communications Act. The Commission held a two-day hearing beginning on May 6, 2015. Although the parties have resolved a number of issues that were initially presented in this arbitration, there remain 74 open issues, including subparts, for the Commission to resolve.

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108 Petition at p. 1.
109 Docket No. 140055-TP – Complaint of FLATEL, Inc. against BellSouth Telecom., Inc. d/b/a AT&T Florida; Docket No. 110306-TP – Request for emergency relief and complaint of FLATEL, Inc. against BellSouth Telecommunications, Inc. d/b/a AT&T Florida to resolve interconnection agreement dispute.
110 Complaint at p. 1.
111 Docket No. 140156-TP – Petition by Communications Authority, Inc. for arbitration of Section 252(b) interconnection agreement with BellSouth Telecommunications, LLC d/b/a AT&T Florida.
4. New Area Code for the Florida Keys

On May 27, 2014, the FPSC received notice from Neustar Inc., the North American Numbering Plan Administrator (NANPA),\textsuperscript{112} that the 305 area code covering the Florida Keys (Keys) would be exhausting\textsuperscript{113} in the second quarter of 2015. The FPSC completed the initial work for area code relief for the Keys in 2000. Through pro-active number conservation measures, the FPSC was able to delay the addition of another area code over the Keys for 14 years.

The only remaining issues which needed to be acted on were to set the mandatory dialing date for 10-digit dialing in the Keys, and extend the 786 area code over the Keys in addition to the 305 area code. When there are two area codes covering the same area, 10-digit dialing is required to route calls to the proper area code. On July 18, 2014, the Commission ordered that extension of the 786 (or SUN) overlay area code over the Florida Keys to be implemented on June 1, 2015, and that mandatory 10-digit dialing would commence for the Florida Keys on April 18, 2015.\textsuperscript{114}

5. Wholesale Performance Measurement Plans

Wholesale performance measurement plans provide a standard against which the Commission can monitor performance over time to detect and correct any degradation in the quality of service ILECs provide to CLECs. The Commission adopted performance measurements for AT&T in August 2001 (revised in 2010), for CenturyLink in January 2003 (revised in 2013), and for Verizon in June 2003 (revised in 2007). Trending analysis is applied to monthly performance measurement data provided by each ILEC.

AT&T is the only ILEC that is required to make payments to CLECs when certain performance measures do not comply with established standards and benchmarks. AT&T’s approved Performance Assessment Plan consists of 47 measurements, of which 24 measurements have remedies applied to them. For the calendar year 2014, AT&T paid approximately $559,283 in remedies to CLECs, an increase of 61 percent from 2013.

On February 1, 2013, CenturyLink filed proposed revisions to its Performance Measurement Plan as a result of a negotiated settlement in Nevada. The revisions included eliminating three measures (leaving a net of 33 measures) and revising several others. The Commission approved these revisions on May 14, 2013, and they went into effect in July 2013. For the 2014 calendar year, CenturyLink’s monthly compliance with established standards ranged from 97.7 percent to 100 percent. CenturyLink’s measure with the most non-compliant instances was its average time to restore service.

\textsuperscript{112} NANPA is a neutral third-party administrator responsible for forecasting the exhaust of geographic area codes and initiating the process known as area code relief planning. NANPA publishes its forecasted exhaust of all of the area codes on a semi-annual basis. The forecast is used in determining when to start the process of adding another area code.

\textsuperscript{113} Area code exhaust occurs when all the prefixes (also known as central office codes) are assigned. Each area code contains 1,000 prefixes containing 10,000 numbers each, but those prefixes beginning with a “zero” or “one” (a total of 200 prefixes) are not permitted. Further, prefixes such as 411, 911 and other “N11” codes (a total of eight codes) are used for special purposes, leaving 792 prefixes available in each area code. When all of these prefixes are assigned, another area code is needed.

\textsuperscript{114} FPSC Order No. PSC-14-0375-PAA-TP, Docket No. 140116-TP, Implementation of the 786 overlay area code and mandatory 10-digit dialing in the Florida Keys, issued July 18, 2014.
Verizon’s current Performance Measurement Plan contains 29 measures. For the calendar year 2014, Verizon’s monthly compliance with approved standards ranged from 85.0 percent to 91.9 percent. The previous year, Verizon’s compliance ranged from 84.0 percent to 90.7 percent. Verizon’s customer trouble report rate was its most troublesome measure.

### 6. Other Matters

In addition to these proceedings, the Commission processed a number of other telecommunications-related items in 2014. The Commission processed 143 service schedule and tariff filings, 64 interconnection agreements and amendments, 20 carrier certifications, 22 certificate cancellations, and over 429 general inquiries/informal complaints.

#### B. Lifeline

In order to comply with FCC requirements and keep the Lifeline application process uncomplicated, the FPSC created an on-line Lifeline application for consumers participating in Supplemental Nutrition Assistance Program (SNAP), Medicaid, or Temporary Cash Assistance (TCA).\(^{115}\) When the applicant completes the application making all the necessary attestations, certifications, and provides the electronic signature, a FPSC computer automatically makes a query to a Florida Department of Children and Families (DCF) Web services interface to confirm current participation in SNAP, Medicaid, or TCA. The real-time response verifies participation in at least one of the programs, but does not identify the program. A positive response will generate an automatic email to the appropriate Lifeline provider advising that an approved Lifeline application is available for retrieval on the FPSC Web site. A negative response will cause a letter to be sent to the applicant stating his/her participation in SNAP, Medicaid, or TCA could not be confirmed and offering Commission staff assistance with any questions. Based upon June 2014 SNAP participants, the Lifeline eligible households decreased by 1.2 percent compared to 2013 data.\(^{116}\) Table 7-1 shows the Lifeline eligibility and participation rate in Florida for the last four years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Lifeline Enrollment</th>
<th>Eligible Households</th>
<th>Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2011</td>
<td>943,854</td>
<td>1,690,512</td>
<td>55.8%</td>
</tr>
<tr>
<td>June 2012</td>
<td>1,035,858</td>
<td>1,864,183</td>
<td>55.6%</td>
</tr>
<tr>
<td>June 2013</td>
<td>918,245</td>
<td>1,952,890</td>
<td>47.0%</td>
</tr>
<tr>
<td>June 2014</td>
<td>957,792</td>
<td>1,930,106</td>
<td>49.6%</td>
</tr>
</tbody>
</table>

Sources: U.S. Department of Agriculture data figures are as of June 2014

If a program other than Medicaid, SNAP, or TCA, is used for certification, the customer must provide documentation of participation from the administering agency, which could be the Florida Department of Education (free school lunch program), the Social Security Administration (Supplemental Security Income), a county-level agency (Low-Income Home Energy Assistance Plan or Section Eight Housing), or the Bureau of Indian Affairs for

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\(^{115}\) Nationally known as Temporary Assistance for Needy Families (TANF).

\(^{116}\) According to the US Department of Agriculture Report, “Supplemental Nutrition Assistance Program: Number of Households Participating, ending June 30, 2014,” over 1,930,106 Florida households participated SNAP.
documentation. Current data shows that over 95 percent of Florida applicants using the Lifeline Coordinated Enrollment Process use Medicaid, SNAP, or TCA for eligibility. If a Lifeline applicant chooses to apply for Lifeline directly with an eligible telecommunications carrier, the carrier can access the DCF web services to confirm program participation for Medicaid, SNAP, and TCA. In Florida, certification and verification can be accomplished using this process if the applicant or existing Lifeline customer participates in the Medicaid, SNAP, or TCA programs which are administered by the DCF.

The National Lifeline Accountability Database (NLAD), which is maintained by the Universal Service Administrative Company (USAC), is designed to help carriers identify and resolve duplicate claims for Lifeline Program supported service and prevent future duplicates. This database provides a means for carriers to check, on a real-time and nationwide basis, if the household is already receiving a Lifeline Program supported service. USAC activated the NLAD for Florida Lifeline participants on March 6, 2014. By March 2014, eligible telecommunications carriers in all states were participating in the NLAD.

The FCC Lifeline Reform Order required state Lifeline administrators that are responsible for the initial determination of a subscriber’s eligibility for Lifeline to provide each eligible telecommunications carrier with a hard-copy of each of the Lifeline certification forms completed by applicants. The Florida Lifeline Electronic Coordinated Enrollment process is a technically advanced process initiated to eliminate the need for paperwork. It does not have the capability of printing out a hard-copy Lifeline application as required by the new FCC Rules. The Florida Lifeline Electronic Coordinated Enrollment process does allow eligible telecommunications carriers to adhere to the requirements of the Lifeline Reform Order without the need to require or maintain hard-copy Lifeline certification applications. On October 25, 2013, the FPSC filed a petition with the FCC for permanent waiver of the hard-copy Lifeline application obligation. On June 6, 2014, the FCC released an order granting Florida a permanent waiver of the FCC requirements to provide hard-copy Lifeline applications to eligible telecommunications carriers. In the order, the FCC stated a permanent waiver is appropriate because Florida’s screening system fulfills the underlying purpose of the rules to limit Lifeline benefits to eligible consumers.

C. Telephone Relay Service

According to the Florida Coordinating Council for the Deaf and Hard of Hearing, nearly three million deaf, hard-of-hearing, deaf-blind, and speech-impaired citizens live in Florida.\textsuperscript{120} Chapter 427, Part II of the Florida Statutes, established the Telecommunications Access System Act of 1991 (TASA). TASA provides funding for the distribution of specialized telecommunications devices and intrastate relay service through the imposition of a surcharge of up to $0.25 per landline access line per month, for up to 25 access lines per account. The surcharge billed per month per landline access line was $0.11 in the 2014-2015 budget year.

Pursuant to TASA, the FPSC is responsible for establishing, implementing, promoting, and overseeing the administration of a statewide telecommunications access system to provide access to telecommunications relay services by people who are deaf, hard of hearing, or speech impaired. In accordance with TASA, the FPSC directed the local exchange companies (LECs) to form a not-for-profit corporation, known as Florida Telecommunications Relay, Inc. (FTRI) to directly administer basic relay service in Florida.

Basic relay service is provisioned in Florida under contract by a single service provider. Through a competitive bid evaluation process, the FPSC awarded the current relay provider contract to Sprint, effective March 1, 2015, for a period of three years. The contract contains options to extend the contract for four additional one-year periods, and requires mutual consent by both parties to extend the contract.

On November 26, 2014, AT&T and Sprint filed a Joint Motion for Expedited Approval of Early Transition of Relay Service Providers from AT&T to Sprint effective March 3, 2015. On December 18, 2014, the FPSC approved the early transition of relay service providers from AT&T to Sprint effective March 3, 2015.

On May 18, 2015, the FPSC approved FTRI’s 2015-2016 budget, directing FTRI to reduce its proposed budget by $164,284. Specifically, the FPSC approved FTRI’s proposed operating revenue of $8,752,580 and proposed expenses of $8,751,932. The TASA surcharge increased $0.01 to $0.12 beginning July 1, 2015.

Chapter VIII. Federal Activities

A. 911 Outage

A multistate 911 outage occurred in April 2014 lasting nearly six hours. The states affected by the outage included: Florida, Washington, Minnesota, North Carolina, South Carolina, California, and Pennsylvania. The outage prevented more than 11 million people in seven states from being able to reach emergency call centers.

The 911 outage was not the result from an extraordinary natural disaster or other unforeseeable catastrophe. Instead the outage was a “sunny day” failure that resulted in over 6,600 missed 911 calls. The reported calls included domestic violence, assault, motor vehicle accidents, a heart attack, an overdose, and an intruder breaking into a residence.

On March 18, 2015, Verizon agreed to the $3.4 million settlement to resolve the FCC’s investigation into the company’s failure.121 The Verizon portion of the outage affected 750,000 California residents who were unable to call 911 to reach a live operator at 13 emergency call centers in northern California. The following month, CenturyLink and Intrado, both agreed to settlements of $16 million and $1.4 million, respectively.122 The FCC’s Consent Decree also required the companies to:

- Identify risks that could result in disruptions to 911 services
- Protect against such risks
- Detect Future 911 outages
- Respond with remedial actions, including prompt notification to affected emergency call centers
- Recover from such outages on a timely basis

In addition, the companies are required to exercise improved oversight of their Next Generation 911 subcontractors and affiliates, maintain up-to-date contact information for emergency call centers, and coordinate with emergency call centers to periodically review their outage notification procedures.

B. Data Breach

In April 2015, AT&T agreed to the pay a $25 million fine as a result of an FCC investigation into whether AT&T failed to properly protect the confidentiality of almost 280,000 customers’ proprietary information.123 The information at issue included sensitive personal information such as customers’ names and at least the last four digits of their Social Security numbers, as well as

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account-related data known as customer propriety network information. The data breaches occurred at AT&T call centers in Mexico, Columbia, and the Philippines. At least two employees believed to have engaged in the unauthorized access confessed that they sold the information. As part of the Consent Decree, AT&T will also hire a compliance officer who shall be privacy certified by an industry certifying organization, create a compliance plan that will be submitted to the FCC and then file compliance reports.

C. Robocall Protections

On June 18, 2015, the FCC approved an order to protect consumers against unwanted robocalls and spam texts.124 This order was the result of a request initiated by the National Association of Attorneys General and thirty-nine state Attorneys General (including Florida’s Attorney General) asking the FCC for an opinion on what actions telephone providers could legally take to block unwanted telemarketing calls.125 Complaints related to unwanted calls are the largest category of complaints received by the FCC, numbering more than 215,000 in 2014. The FCC affirmed consumers’ rights to control the calls they received, but also made clear that telephone companies face no legal barriers to allowing consumers to choose to use robocall-blocking technology. The actions address almost two dozen petition and other requests that sought clarity on how the FCC interprets the Telephone Consumer Protection Act. Highlights of the order include:

- Service providers can offer robocall-blocking technologies to consumers and implement market-based solutions that consumers can use to stop unwanted robocalls.
- Consumers have the right to revoke their consent to receive robocalls and robotexts in any reasonable way at any time.
- If a phone number has been reassigned, companies must stop calling the number after one call.
- A consumer whose name is in the contact list of an acquaintance’s phone does not consent to receive robocalls from third-party applications downloaded by the acquaintance.

The order also includes very limited and specific exemptions for urgent circumstances. Free calls or texts to alert consumers to possible fraud on their bank accounts or remind them of important medication refills, among other financial alerts or healthcare messages, are allowed without prior consent. Other types of financial or healthcare calls, such as marketing or debt collections calls are not allowed under the FCC’s exemptions. Consumers have the right to opt out from these permitted calls and text at any time.

D. Universal Service

Florida consumers pay more into the federal Universal Service Fund (USF) than what is returned to eligible service providers in Florida.\(^{126}\) For 2013, only California and New York were larger net contributors. The FPSC monitors and participates in ongoing proceedings at the FCC and with the Federal-State Joint Board on Universal Service (Joint Board). Table 8-1 shows Florida’s estimated contribution and receipts for 2013 and provides a comparison of net contributions for 2011 and 2012.

### Table 8-1

**2013 Federal Universal Service Programs in Florida**

(Annual Payments and Contributions in Thousands of Dollars)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated Net</td>
<td>Estimated Net</td>
<td>Payments to Service Providers</td>
<td>Estimated Consumers Contributions</td>
</tr>
<tr>
<td>High-Cost</td>
<td>($206,311)</td>
<td>($209,239)</td>
<td>$65,341</td>
<td>$265,968</td>
</tr>
<tr>
<td>Low Income</td>
<td>(1,007)</td>
<td>(23,613)</td>
<td>101,373</td>
<td>141,791</td>
</tr>
<tr>
<td>Schools &amp; Libraries</td>
<td>(67,626)</td>
<td>(63,175)</td>
<td>89,269</td>
<td>140,752</td>
</tr>
<tr>
<td>Rural Health Care</td>
<td>(8,558)</td>
<td>(9,607)</td>
<td>282</td>
<td>10,151</td>
</tr>
<tr>
<td>Total(^{127})</td>
<td>($290,437)</td>
<td>($312,806)</td>
<td>$256,265</td>
<td>$538,543</td>
</tr>
</tbody>
</table>

Source: FCC Universal Service Monitoring Report, various years, Tables 1.13 and 1.9.

1. **Contribution System Reform**

Funding for USF is collected from telecommunications service providers. The amount they contribute is based on a quarterly FCC assessment factor and the amount of telecommunications revenues service providers collect from end-users. Specifically, the assessment factor is applied to interstate and international telecommunications revenues. Mobile wireless carriers and interconnected VoIP providers are also required to contribute.\(^{128}\) In 2014 the assessment factor, ranged from a high of 16.6 percent in the second quarter to a low of 15.7 percent in the third quarter.\(^{129}\) Figure 8-1 illustrates changes to the assessment factor over the last four years.

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\(^{127}\) The total contribution for 2013 includes approximately $108 million in administrative expenses for the Universal Service Administrative Company.

\(^{128}\) Wireless carriers and interconnected VoIP providers may use the interim safe harbor percentages to estimate the interstate portion of their revenues.

In 2012, the FCC initiated a proceeding to consider modernizing how Universal Service fund contributions are assessed and recovered. The FCC has acknowledged that the current contribution system has given rise to uncertainty, inefficiency, and market distortions. Outdated rules and loopholes mean that services that compete directly against each other may face different treatment.

Among the options the FCC is considering is a change to assess contributions based on either total revenues (i.e., interstate and intrastate), connections, numbers, or a hybrid approach (of connections and revenues). The FCC sought comment on expanding the types of providers that should be required to contribute. Such providers include enterprise communications service providers, text messaging providers, and broadband Internet service providers.

On August 7, 2014, the FCC referred these issues to the Federal-State Universal Service Joint Board. While the Joint Board was asked to file its recommendation with the FCC by April 7, 2015, that deadline has been extended.

2. High-Cost

The FCC modernized its existing high-cost fund in 2011 to explicitly support deployment of broadband to unserved areas. As part of this reform, the FCC began to phase out the existing

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131 Florida Public Service Commissioner Ronald Brisé serves on the Federal-State Universal Service Joint Board.
high-cost support programs and began funding through the Connect America Fund. The Connect America Fund focuses on supporting and expanding fixed broadband availability and voice service. Figure 8-2 identifies 2014 authorized support by high-cost program.

**Figure 8-2**

2014 Authorized Federal High-Cost Support
(Funding in Millions of Dollars)

- Frozen Support, $1,639
- Intercarrier Compensation, $425
- Mobility Fund, $4
- Incremental Support, $17
- High Cost Loop Support, $779
- Interstate Common Line Support, $887
- Legacy Programs

Source: USAC 2014 Annual Report

At its December Open Meeting, the FCC approved an order that modified prior reforms to accommodate the higher speed requirement and target Connect America Funds to expand broadband into rural areas that would not otherwise be served. \(^{133}\) Specifically, the FCC will now require companies receiving Connect America funding for fixed broadband to serve consumers with speeds of at least 10 Mbps for downloads and 1 Mbps for uploads. The prior broadband requirements were 4 Mbps for downloads and 1 Mbps for uploads.

While increasing the broadband speed requirements that carriers have to provide, the FCC rejected arguments that it should increase the high-cost universal service budget, as a means of advancing its broadband goals. It noted that the ratepayer impact from its universal service programs have persuaded it “to proceed cautiously when weighing the benefits from increased support against the burden on ratepayers.”

3. **Low Income**

The Lifeline program provides a $9.25 discount on phone service for qualifying low-income consumers to ensure that all Americans have the opportunities and security that phone service brings, including being able to connect to jobs, family and emergency services.

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In December of 2012, the FCC’s Wireline Competition Bureau selected 14 low-income broadband pilot projects, spanning 21 states and Puerto Rico. In Florida, Maryland, Texas, Washington, Wisconsin, and Massachusetts, TracFone’s pilot project studied the effects of varying subsidy amounts and discounted hardware through mobile smartphone service plans. All of the TracFone’s plans included unlimited voice/text and 2 gigabytes of data. The pilots ended in November of 2014, and the Bureau issued a report on the projects in 2015. The Bureau concluded that:

- Consumers respond well to having a choice of plans. Households have different needs for data speeds, usage amounts, service type and devices. The pilots showed low-income consumers do not all want or need the same products.
- While price is not the only barrier to broadband adoption, price matters.
- Carriers are not necessarily the best at addressing other barriers to broadband adoption, such as digital literacy and relevance to one's life.

On June 22, 2015, the FCC released a Notice of Proposed Rulemaking and Order seeking comments on restructuring the program to include access to broadband. The FCC has found that broadband has become essential to participation in modern society, offering access to jobs, education, health care, government services and opportunity. The notice seeks comment on maintaining the same $9.25 a month subsidy, and proposes to use that money as effectively and efficiently as possible to deliver modern communications services. The FCC also seeks consideration of the comment on:

- Adopting minimum service standards for both voice and broadband services
- Whether broadband should be a required offering of Lifeline providers
- How to encourage more competition to improve price and service
- How to encourage more participation by states

The FCC also suggests streamlining the process of verifying consumer eligibility by taking it out of the hands of providers. Specific ideas for consideration include establishing a third-party “national verifier,” coordination with other federal needs-based programs, and consideration of the use of direct subsidies to consumers through vouchers. Finally, the notice seeks comments on a budget for the program. For 2014, the Low Income Program was $1.67 billion, or about 19 percent


of the total universal service program. By comparison in 2004, the Low Income Program was only $765 million, or about 13 percent of the total universal service program.

4. Schools and Libraries

The schools and libraries support program, commonly known as the E-rate Program, provides financial assistance for eligible schools and libraries. The program provides support to reduce the cost associated with telecommunications services, Internet access, and eligible equipment, along with repair and upkeep of eligible equipment. The discounts range from 20 percent to 90 percent of the costs of eligible services depending on the level of poverty and whether the school or library is located in an urban or rural area.

On July 23, 2014, the FCC adopted an order that will expand Wi-Fi networks in schools and libraries. The new rules are intended to comprehensively modernize the E-rate Program. According to the FCC, this reform will expand Wi-Fi to more than 10 million students in 2015.

At its December 2014 Open Meeting, the FCC approved further changes, increasing the size of the fund from the current $2.4 billion to $3.9 billion. According to the FCC, if demand for E-rate funds from schools and libraries reaches the full $3.9 billion cap, the estimated additional cost to an individual ratepayer would be approximately 16 cents per month.

Figure 8-3 reflects the new cap relative to the amount of support distributed in prior years. On an annual basis, Florida consumers can expect to pay about $96 million more per year into the federal program based on 2013 estimated contribution data.

In addition to increases to the fund size, the order provides schools and libraries increased flexibility and options for purchasing broadband services to enable schools and libraries to meet their Internet capacity needs in the most cost-effective way possible.

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E. Numbering Rules for VoIP Providers

On June 18, 2015, the FCC unanimously adopted a Report and Order modernizing its rules governing the distribution of phone number for interconnected VoIP providers. Prior to this order, interconnected VoIP providers were required to get phone numbers from third-party carriers. The FCC found that allowing these providers to go directly to numbering administrators for phone numbers will benefit consumers by reducing costs. In addition, giving VoIP providers direct access to number will promote competitive choice for consumers by speeding the transfer of a customer’s existing number to or from an interconnected VoIP provider, known as “porting” a number.

F. Fines

In September 2014, the FCC’s Enforcement Bureau reached a $7.4 million settlement with Verizon to resolve an investigation into the company’s use of personal consumer information for marketing purposes. The Enforcement Bureau’s investigation uncovered that Verizon failed to notify approximately two million new customers, on their first invoices or in welcome letters, of their privacy rights, including how to opt out from having their personal information used in marketing campaigns, before the company accessed their personal information to market services to them. In addition to the $7.4 million payment, Verizon has agreed to notify customers of their opt-out rights on every bill for the next three years.

In October 2014, AT&T Mobility agreed to pay $80 million to the Federal Trade Commission to provide refunds to consumers that the company unlawfully billed for unauthorized third-party charges as part of a $105 million settlement. The refunds are part of a multi-agency settlement that also includes $20 million in penalties and fees paid to 50 states and the District of Columbia, as well as a $5 million penalty to the FCC.

On December 19, 2014, the FCC announced a settlement of at least $90 million with T-Mobile to resolve an investigation into allegations that the company billed customers millions of dollars in unauthorized third-party subscriptions and premium text messaging services. The FCC’s Enforcement Bureau launched its investigation after receiving consumer complaints alleging that T-Mobile customers were billed for unauthorized charges for subscriptions to third-party services that they did not request or authorize. These subscription charges were typically $9.99 per month.

The FCC also indicated in January 2015 that it intends to fine AT&T for unauthorized wireless operations for $640,000. The FCC alleges that AT&T operated numerous wireless stations throughout the U.S. without authorization over a multiyear period and failed to provide required license modification notices to it. AT&T apparently operated numerous common carrier fixed point-to-point microwave stations at variance from the stations’ authorization for periods as long as five years. The FCC noted that AT&T’s action greatly increases the risk of harmful interference. In a similar incident in 2013, AT&T agreed pay the FCC $600,000 to settle an investigation of unauthorized operations based on the company’s failure to file modification applications regarding its cellular service areas.

On May 12, 2015, the FCC announced that Verizon Wireless will pay $90 million and Sprint Corporation will pay $68 million to settle investigations into unauthorized third-party billings, similar to the AT&T Mobility and T-Mobile cases. Verizon’s $90 million settlement will include a minimum of $70 million to fund a consumer redress program, $16 million for state governments participating in the settlement, and $4 million as a fine paid to the U.S. Treasury. Sprint’s $68 million settlement will include a minimum of $50 million to fund a consumer redress program, $12 million for state governments participating in the settlement, and $6 million as a fine paid to the U.S. Treasury. The settlements were negotiated in coordination with the Consumer Financial Protection Bureau and the attorneys general of all 50 states and the District of Columbia.

The FCC announced on June 17, 2015 that it plans to fine AT&T Mobility $100 million for misleading its consumers about unlimited mobile data plans. The FCC’s investigation

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contends that AT&T severely reduced the data speeds of customers with unlimited data plans. Specifically, the Commission charges AT&T Mobility with violating the 2010 Open Internet Transparency Rule by falsely labeling these plans as “unlimited” and by failing to sufficiently inform customers of the maximum speed they would receive under the Maximum Bit Rate Policy. The Transparency Rule went into effect in 2011 and was upheld by the D.C. Circuit in its opinion in *Verizon v. FCC*.

**G. Fraud Indictment**

The U.S. Department of Justice indicted three men from Florida for allegedly defrauding the FCC’s Lifeline program of approximately $32 million.\(^{145}\) The three men who were indicted are Thomas E. Biddix, Kevin Brian Cox, and Leonard I. Solt. The indictment alleges the defendants engaged in a scheme to submit false claims to the federal Lifeline program administered by the Universal Service Administrative Company. The defendants were charged with one count of conspiracy to commit wire fraud and 15 substantive counts of wire fraud, false claims, and money laundering. The court also authorized a seizure warrant seeking the defendants’ gains, including the contents of multiple bank accounts, a yacht and several luxury automobiles.

Four former FPSC certificated companies were named in the indictment. Following a FPSC investigation in 2011, the certificates of three of the named companies were voluntarily surrendered and the fourth certificate was cancelled effective November 30, 2011 for failure to abide by the terms of a settlement agreement approved by the FPSC.

# Appendix A. List of Certificated CLECs as of 12/31/14

**Indicates that the company did not respond to the Commission’s data request.**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>365 Wireless, LLC</td>
<td>Broadview Networks, Inc.</td>
</tr>
<tr>
<td>382 Networks, Inc.</td>
<td>Broadvox-CLEC, LLC</td>
</tr>
<tr>
<td>4IT, Inc.</td>
<td>Broadwing Communications, LLC</td>
</tr>
<tr>
<td>A.SUR Net, Inc.</td>
<td>BT Communications Sales LLC</td>
</tr>
<tr>
<td>Access Media 3, Inc.</td>
<td>Budget Phone</td>
</tr>
<tr>
<td>Access One, Inc.</td>
<td>BudgeTel Systems, Inc.</td>
</tr>
<tr>
<td>Access Point, Inc.</td>
<td>BullsEye Telecom, Inc.</td>
</tr>
<tr>
<td>ACN Communication Services, Inc.</td>
<td>C Spire Business Solutions</td>
</tr>
<tr>
<td>Advanced Communications Southeast, Inc.</td>
<td>C3</td>
</tr>
<tr>
<td>Aero Communications, LLC</td>
<td>Callis Communications, Inc.</td>
</tr>
<tr>
<td>Affordable Phone Services, Inc.</td>
<td>Campus Communications Group, Inc.</td>
</tr>
<tr>
<td>Airespring, Inc.</td>
<td>Cbeyond Communications, LLC</td>
</tr>
<tr>
<td>Airus, Inc.</td>
<td>Cincinnati Bell Any Distance Inc.</td>
</tr>
<tr>
<td>ALEC, LLC</td>
<td>Citrix Communications LLC</td>
</tr>
<tr>
<td>Alternative Phone, Inc.</td>
<td>City of Bartow</td>
</tr>
<tr>
<td>American Telephone Company LLC</td>
<td>City of Daytona Beach</td>
</tr>
<tr>
<td>American Utility Systems, Inc.</td>
<td>City of Lakeland</td>
</tr>
<tr>
<td>Americatel Corporation</td>
<td>City of Leesburg</td>
</tr>
<tr>
<td>ANEW Broadband, Inc.</td>
<td>City of Ocala</td>
</tr>
<tr>
<td>ANPI Business, LLC</td>
<td>Clarity Communications Group</td>
</tr>
<tr>
<td>AT&amp;T Corp.</td>
<td>Clear Choice Communications</td>
</tr>
<tr>
<td>AT&amp;T Florida</td>
<td>Clear Rate Communications, Inc.</td>
</tr>
<tr>
<td><strong>ATC Outdoor DAS, LLC</strong></td>
<td>Cogent Communications of Florida LHC, Inc.</td>
</tr>
<tr>
<td>Atlantic Broadband Enterprise, LLC</td>
<td>Comcast Long Distance</td>
</tr>
<tr>
<td>Atlantis Communications LLC</td>
<td>Comcast Phone of Florida, LLC d/b/a</td>
</tr>
<tr>
<td>ATN, Inc.</td>
<td>Comcast Digital Phone</td>
</tr>
<tr>
<td>Backbone Communications Inc.</td>
<td>Comity Communications, LLC</td>
</tr>
<tr>
<td><strong>Baldwin County Internet/DSSI Service, L.L.C.</strong></td>
<td>Communications Authority, Inc</td>
</tr>
<tr>
<td>Bandwidth.com CLEC, LLC</td>
<td>ComNet (USA) LLC</td>
</tr>
<tr>
<td>Barr Tell USA, Inc.</td>
<td>Comtech21, LLC</td>
</tr>
<tr>
<td>Bayfront Health System, Inc.</td>
<td>Conterra Ultra Broadband, LLC</td>
</tr>
<tr>
<td><strong>BCN Telecom, Inc.</strong></td>
<td>Convergia, Inc.</td>
</tr>
<tr>
<td><strong>BeCruising Telecom</strong></td>
<td>CoreTel Florida, Inc.</td>
</tr>
<tr>
<td>Benchmark Communications, LLC</td>
<td>Cox Florida Telecom, L.P.</td>
</tr>
<tr>
<td>BetterWorld Telecom</td>
<td>Crexendo Business Solutions, Inc.</td>
</tr>
<tr>
<td>Birch Communications, Inc.</td>
<td>Crosstel Tandem, Inc.</td>
</tr>
<tr>
<td>Birch Telecom of the South, Inc.</td>
<td>Crown Castle NG East LCC</td>
</tr>
<tr>
<td>Bright House Networks Information Services (Florida), LLC</td>
<td>Crown Castle NG East LLC</td>
</tr>
<tr>
<td>Broadband Dynamics, L.L.C.</td>
<td>Custom Network Solutions, Inc.</td>
</tr>
<tr>
<td>BroadRiver Communication Corporation</td>
<td>Custom Tel, LLC</td>
</tr>
<tr>
<td></td>
<td>Dais Communications</td>
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</tbody>
</table>
Nebula Telecommunications of Florida LLC
**NET TALK.COM, INC.
**Network Billing Systems, L.L.C.
Network Innovations, Inc.
Network Operator Services, Inc.
Network Telephone Corporation
Neutral Tandum-Florida, LLC
New Horizons Communications Corp.
**NewPhone, Inc.
Nexus Communications TSI, Inc.
**NMG Telecom, LLC
Norstar Telecommunications, LLC
North American Telecommunications Corporation
North County Communications Corporation
NOS Communications, Inc.
O1 Communications East, LLC
One Park Place Executive Suites
One Voice Communications, Inc.
**OneStar Long Distance, Inc.
OneTone Telecom, Inc.
Onvoy, LLC
Opextel LLC d/b/a Alodiga
**Pac-West Telecomm, Inc.
PAETEC Business Services
PaTec Communications, Inc.
**Pathway Communications
Peerless Network of Florida, LLC
Phone Club Corporation
Pioneer Telephone
PowerNet Global Communications, Inc.
Preferred Long Distance, Inc.
Premier Executive Center
**Primus Telecommunications, Inc.
PS Executive Centers, Inc.
Public Wireless, Inc.
QuantumShift Communications, Inc.
RCLEC, Inc.
Reliance Globalcom Services, Inc.
ReTel Communications, Inc.
Rightlink USA, Inc.
Rosebud Telephone, LLC
Royal American Hospitality, Inc.
Sage Telecom Communications, LLC
Sago Broadband, LLC
**Sandhills Telecommunications Group, Inc.
SanTel Communications
Sarasota Memorial Health Care System
Seminole Telecom of Florida, LLC
**Semnac Technologies, LLC
SH Services LLC
Shands Teaching Hospital and Clinics, Inc.
SKYNET360, LLC
Smart City Communications
Smart City Networks, Limited Partnership
**SNC Communications, LLC
Southeastern Services, Inc.
Southern Light, LLC
Southern Light, LLC
Southern Telecom
Sprint Communications Company Limited Partnership
Stratus Networks, Inc.
Summit Broadband
Sunesys, LLC
**Sun-Tel USA, Inc.
T3 Communications, Inc.
Talk America Inc.
Talk America Services, LLC
TCG South Florida
**Telapex Long Distance, Inc.
TelCentris Communications, LLC
Telco Experts, LLC
TelCove Operations, LLC
Tele Circuit Network Corporation
TeleDias Communications, Inc.
Telepak Networks, Inc.
Telovations Inc.
Telrite Corporation
Telescope Communications, Inc.
Terra Nova Telecom, Inc.
4TerraNovaNet, Inc.
The Centers of Westshore
The Other Phone Company, Inc.
Time Warner Cable Business LLC
TNCI Operating Company LLC
Total Marketing Concepts, LLC
Touch Base Communications
Touchtone Communications Inc. of Delaware
<table>
<thead>
<tr>
<th>Company Name</th>
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<tbody>
<tr>
<td>*TQC Communications, Corp.</td>
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<tr>
<td>**Trans National Communications International, Inc.</td>
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<td>**Tristar Communications Corp.</td>
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<tr>
<td>tw telecom of florida l.p.</td>
</tr>
<tr>
<td>U.S. Metropolitan Telecom, LLC</td>
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<tr>
<td>**Universal Local Exchange Carrier of Florida, LLC</td>
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<tr>
<td>US Signal Company, L.L.C.</td>
</tr>
<tr>
<td>US Telesis, Inc.</td>
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<tr>
<td>Vanco US, LLC</td>
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<tr>
<td>Velocity The Greatest Phone Company Ever, Inc.</td>
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<tr>
<td>Verizon Access Transmission Services</td>
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<tr>
<td>Verizon Florida LLC</td>
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<td>Verizon Select Services Inc.</td>
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<tr>
<td>Vitcom, LLC</td>
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<tr>
<td>VoDa Networks, Inc.</td>
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<tr>
<td>Vodafone US Inc.</td>
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<tr>
<td>**Voice Stream Network, Inc.</td>
</tr>
<tr>
<td>VOX3COM</td>
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<td>Voxbeam Telecommunications Inc.</td>
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<td>Wholesale Carrier Services, Inc.</td>
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<tr>
<td>Wide Voice, LLC</td>
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<tr>
<td>WiMacTel, Inc.</td>
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<tr>
<td>Windstream KDL, Inc.</td>
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<tr>
<td>Windstream Norlight, Inc.</td>
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<td>Windstream NTI, Inc.</td>
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<tr>
<td>Windstream NuVox, Inc.</td>
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<td>WonderLink Communications, LLC</td>
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<td>WOW! Internet, Cable and Phone</td>
</tr>
<tr>
<td>WTI Communications, Inc.</td>
</tr>
<tr>
<td><a href="http://www.netquincy.com">www.netquincy.com</a></td>
</tr>
<tr>
<td>XO Communications Services, LLC</td>
</tr>
<tr>
<td>YMax Communications Corp.</td>
</tr>
<tr>
<td>Zayo Group, LLC</td>
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</tbody>
</table>
# Appendix B. Summary of Complaints by Carriers

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Docket Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A ICA adoption request</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A Late payment charges</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A 911 fees</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A Relay surcharge</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A LNP charges</td>
</tr>
<tr>
<td>FLATEL</td>
<td>Birch</td>
<td>N/A Disconnection</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A Trunk outage</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A Local interconnection</td>
</tr>
<tr>
<td>Communications Authority</td>
<td>AT&amp;T</td>
<td>140156-TP Arbitration</td>
</tr>
<tr>
<td>Terra Nova Telecom</td>
<td>AT&amp;T</td>
<td>N/A Number portability</td>
</tr>
<tr>
<td>Glossary</td>
<td>The circuit or channel between the demarcation point at the customer’s premises and the serving end or class 5 central office.</td>
<td></td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>Access Line</td>
<td>In wireless networks, the connection from an individual base station (tower) to the central network (backbone). Typical backhaul connections are wired high-speed data connections (T1 line, etc.), but they can be wireless as well (using point-to-point microwave or WiMax, etc.).</td>
<td></td>
</tr>
<tr>
<td>Backhaul</td>
<td>A term describing evolving digital technologies offering consumers integrated access to voice, high-speed data services, video on demand services, and interactive information delivery services.</td>
<td></td>
</tr>
<tr>
<td>Broadband</td>
<td>A fully operational two-way communications path.</td>
<td></td>
</tr>
<tr>
<td>Circuit</td>
<td>Competitive Local Exchange Company. Any company certificated by the Florida Public Service Commission to provide local exchange telecommunications service in Florida on or after July 1, 1995.</td>
<td></td>
</tr>
<tr>
<td>CLEC</td>
<td>The federal Communications Act of 1934, as amended by the Telecommunications Act of 1996, established a national framework to enable CLECs to enter the local telecommunications marketplace.</td>
<td></td>
</tr>
<tr>
<td>Communications Act</td>
<td>This term refers to VoIP service provided by the same company that provides the customer’s broadband connection. Facilities-based VoIP services are generally provided over private managed networks and are capable of being provided according to most telephone standards. While this service uses Internet Protocol for its transmission, it is not generally provided over the public Internet.</td>
<td></td>
</tr>
<tr>
<td>Facilities-based VoIP service</td>
<td>FiOS is Verizon’s suite of voice, video, and broadband services provisioned over fiber optic cable directly to the customer premises. FiOS can currently provide Internet access with maximum download speed of 500 Mbps and upload speed of 500 Mbps.</td>
<td></td>
</tr>
<tr>
<td>FiOS</td>
<td>Interconnection Agreement. An interconnection agreement is a contract that establishes the rates, terms and conditions that govern the business relationship between telecommunications companies.</td>
<td></td>
</tr>
<tr>
<td>ICA</td>
<td>Incumbent Local Exchange Company. Any company certificated by the FPSC to provide local exchange telecommunications service in Florida on or before June 30, 1995.</td>
<td></td>
</tr>
<tr>
<td>ILEC</td>
<td>According to the FCC, it is a VoIP service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user's location; (3) requires Internet protocol-compatible customer premises equipment; and (4) permits users generally to receive calls that originate and terminate on the public switched telephone network.</td>
<td></td>
</tr>
<tr>
<td>Interconnected VoIP service</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
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<td></td>
</tr>
<tr>
<td>Intermodal</td>
<td>The use of more than one type of technology or carrier to transport telecommunications services from origination to termination. When referring to local competition, intermodal refers to non-wireline voice communications such as wireless or VoIP.</td>
<td></td>
</tr>
<tr>
<td>Internet Protocol (IP)</td>
<td>The term refers to all the standards that keep the Internet functioning. It describes software that tracks the Internet address of nodes, routes outgoing messages, and recognizes incoming messages.</td>
<td></td>
</tr>
<tr>
<td>Over-the-Top VoIP service</td>
<td>This term refers to VoIP service that is provided independently from a particular broadband connection and is transmitted via the public Internet. Examples of this service include Vonage and Skype.</td>
<td></td>
</tr>
<tr>
<td>Switched Access</td>
<td>Local exchange telecommunications company-provided exchange access services that offer switched interconnections between local telephone subscribers and long distance or other companies. Long distance companies use switched access for origination and termination of user-dialed calls.</td>
<td></td>
</tr>
<tr>
<td>TDM</td>
<td>Time Division Multiplexing is a method of transmitting and receiving independent signals over a common signal path by means of synchronized switches at each end of the transmission line so that each signal appears on the line only a fraction of the time in an alternating pattern. TDM circuit switched lines represent the traditional wireline access line data within this report and do not include VoIP connections.</td>
<td></td>
</tr>
<tr>
<td>U-verse</td>
<td>U-verse is the brand name of AT&amp;T for a group of services provided via Internet Protocol (IP), including television service, Internet access, and voice telephone service. Similar to Verizon’s FiOS service, AT&amp;T’s U-verse is deployed using fiber optic cable.</td>
<td></td>
</tr>
<tr>
<td>Universal Service</td>
<td>This term describes the financial support mechanisms that constitute the national universal service fund. This fund provides compensation to telephone companies or other communications entities for providing access to telecommunications services at reasonable and affordable rates throughout the country, including rural, insular, high-cost areas, and public institutions.</td>
<td></td>
</tr>
<tr>
<td>Universal Service Administrative Company (USAC)</td>
<td>USAC is an independent American nonprofit corporation designated as the administrator of the federal Universal Service Fund by the Federal Communications Commission. USAC is a subsidiary of the National Exchange Carrier Association.</td>
<td></td>
</tr>
<tr>
<td>VoIP</td>
<td>Voice over Internet Protocol. The technology used to transmit voice conversations over a data network using Internet Protocol.</td>
<td></td>
</tr>
<tr>
<td>Wireline</td>
<td>A term used to describe the technology used by a company to provide telecommunications services. Wireline is synonymous with “landline” or land-based technology.</td>
<td></td>
</tr>
</tbody>
</table>