

# THE STATE OF THE TELECOMMUNICATIONS INDUSTRY IN UTAH



Sixth Annual Report to the Governor,  
Legislature, the Public Utilities and Technology  
Interim Committee, and Utah Technology  
Commission

Utah Public Service Commission  
<http://www.psc.utah.gov>

October 2003

## **UTAH PUBLIC SERVICE COMMISSION**

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### *Preface*

Pursuant to UCA § 54-8b-2.5, the Utah Public Service Commission submits this report to the Governor, Legislature, the Public Utilities and Technology Interim Committee, and Utah Technology Commission. The Sixth Annual Report on the State of the Telecommunications Industry in Utah documents our efforts to implement state and federal legislation furthering competition in Utah's telecommunications markets.

Over the past several years, the Utah legislature, Congress, and the Federal Communications Commission have laid the groundwork for competitors to enter the local telecommunications market. Since last year's report, we have continued to implement policies that foster a competitive local market. We have also focused increased resources at facilitating universal service, broadband deployment, and customer protection measures. These issues and others will be explored in depth in this report, along with our recommendations for regulatory changes necessary to achieve the policies of the state.

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## **THE STATE OF THE TELECOMMUNICATIONS INDUSTRY IN UTAH**

### **I. INTRODUCTION**

This “Sixth Report on the State of the Telecommunications Industry in Utah” fulfills the statutory requirement of Utah Code Title 54-8b-2.5 to report on the state of the telecommunications industry in Utah and to make recommendations for any legislative or regulatory changes necessary to achieve the policies of the State. Since the Utah Telecommunications Act of 1995 and the Federal Telecommunications Act of 1996 contain a number of provisions that are intended to open local markets to competition we generally focus on the implementation of these laws. We provide a review of telecommunications markets, trends, and competition issues, including significant changes during the past year. The data and discussions primarily address the nature and scope of the Utah market, but also include some comparative national data. Together these analyses describe the competitive status of the local, local toll, long distance, and advanced services markets.

Before the passage of the Utah Telecommunications Act of 1995, there were no competitive local exchange carriers (CLECs) operating in the state; monopoly incumbents were the only carriers offering local exchange service in Utah. The Utah Telecommunications Act of 1995 went into effect on May 1, 1997. There are now 77 CLECs licensed to operate in portions of Utah, as well as 16 incumbent local exchange carriers (ILECs), and 422 toll resellers that have registered to provide long distance service in Utah (although only 151 resellers are active). Because the market is dynamic and characterized by new entrants, acquisitions, mergers, bankruptcies and business reorganizations, current information about these companies is available on our web site. <http://www.psc.utah.gov>.

#### **Federal and Regional Impacts on the Competitive Marketplace**

Legal and regulatory actions at both the state and federal level have spurred significant changes in Utah’s telecommunications marketplace. Over the past two years, the Federal Communications Commission (FCC) has launched a number of local competition and broadband proceedings. A key proceeding at the federal level is the Federal Communications Commission’s (FCC) Triennial Review of unbundled network elements (UNEs). The FCC’s Order in this matter requires the state Commissions to undertake a detailed analysis of what portions of the network Qwest will need to continue to provide to the CLECs. The Commission is currently starting work on two proceedings to collect the evidence needed for these determinations. We continue to actively monitor telecommunications policy developments at the FCC, other state commissions, and within the federal courts.

**Indicators of Telecommunications Competition in Utah**

- 77 CLECs hold certificates and 28 of them currently provide service
- 16 ILECs operate throughout the state
- 422 toll resellers have notified the Commission of their intent to provide long distance in Utah and 151 currently provide long distance service to customers in the state
- 116 interconnection agreements have been approved
- 153 collocations currently exist along the Wasatch Front
- 14 Competitive Local Exchange Carriers each serve more than 1,000 local exchange lines
- Within Qwest's service area, Qwest's overall market share is 80 percent; the CLECs, 20 percent
- Within Qwest's service area, Qwest provides 62 percent of business lines; CLECs, 38 percent
- Within Qwest's service area, Qwest provides 89 percent of residential lines; CLECs, 11 percent
- The largest competitive local exchange carriers based on lines served are Comcast Phone of Utah, XO Utah, and McLeodUSA, respectively
- The largest local exchange companies based on revenues are Qwest, AT&T Communications of the Mountain States, XO Utah, and Comcast Phone of Utah, in order of magnitude

## **II. COMMISSION EFFORTS TO FURTHER COMPETITION AND PROMOTE QUALITY TELECOMMUNICATIONS SERVICE IN UTAH**

The Utah Public Service Commission promotes flexible and reduced regulation for telecommunications corporations and services as competition develops, encourages new technologies, modifies regulatory policies to allow greater competition and to provide wider customer choices for telecommunications services throughout the state, and endeavors to protect customers who do not have competitive choices. Our major efforts to promote competitive telecommunications markets in Utah during 2003 are explained below.

### **Approve and Arbitrate Interconnection Agreements**

Interconnection agreements are negotiated or arbitrated contracts between two telecommunications carriers. The contracts address such issues as rates, terms, and conditions for unbundled network elements, network interconnection and architecture, operations support systems, and monitoring performance. A total of 16 new interconnection agreements, and 48 amendments to existing agreements were submitted to us in the past twelve months. Since the opening of competition in the Utah telecommunication's market following the 1995 Act, 152 interconnection agreements have been submitted to the Commission, of which 116 have been approved.

The Commission also arbitrates disputes among local exchange carriers. We implement the regulatory mandate regarding fair access to the monopoly's network as required by the 1995 State Act and the 1996 Federal Act. At times this includes arbitrating interconnection and other disputes.

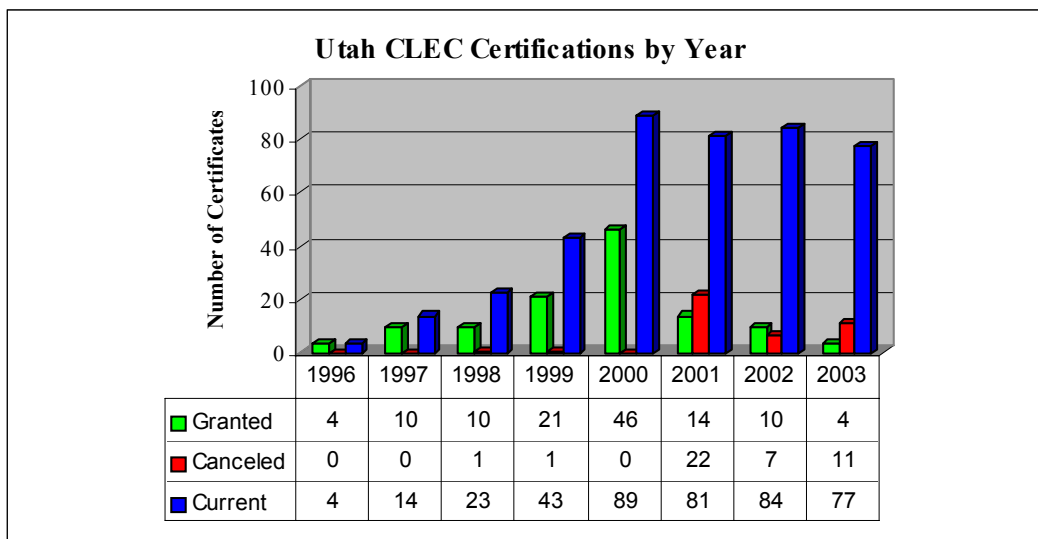
### **Review Applications for New Competitors**

From the passage of the 1995 State Act until 1999, Utah saw a significant influx of CLECs seeking certificates to operate in Utah. Since that time the number of applications has declined and some CLECs have left the market. Currently 77 CLECs have certificates, and 28 of them serve at least some customers in the major urban population centers of the State. Under Commission Rule 746-349 and pursuant to UCA § 54-8b-2.1, a CLEC must have a certificate issued by the Commission to operate and provide telecommunications service in Utah. The number of CLEC applications has decreased from sixteen to twelve from the previous twelve-month period, but there have been nine applications submitted in the first six months of 2003. There seems to be a renewed interest in telecommunications competition since the financial markets have improved. Of the twelve applications that were submitted in the past twelve

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months, we have approved four. The eight unapproved applications were incomplete and the Division is in the process of obtaining the necessary information from the applicants.

It is important to note that the number of CLECs overstates the actual number of entrants into the market. While we have certified many carriers to provide service, most have yet to offer any service to the public. A carrier that has no customers is only a potential competitor. In addition, some carriers with certificates are no longer providing service. The number of CLEC certificates that have been cancelled at the request of their holders decreased from 22 in 2001 to 7 and 11 in 2002 and 2003, respectively. The accompanying table shows the changes over time in Utah certifications since the 1995 State Act.



### Enforce Price Cap and Pricing Flexibility Regulation

Pursuant to Utah Code Ann. 54-8b-2.4(5)(a), price cap regulation is the means by which the prices of Qwest's tariffed services are set. This form of regulation employs price indices that are revised annually to reflect the effects of inflation, productivity, and exogenous factors. The 2002 price cap compliance filing reduced customers' rates by \$4.3 million.

Under Utah statute, Qwest applied for and received approval to flexibly price specific business services in fifteen additional wire centers in 2002 in Utah, Summit, and Tooele Counties, as well as most of Northern Utah. For the first time in 2002, Qwest petitioned for and was

granted pricing flexibility (with a maximum price cap) for residential services. The areas that received residential pricing flexibility were in Salt Lake, Provo, Orem and Ogden. Qwest has also recently applied for pricing flexibility for most of the remaining areas where it offers business and residential services in Utah. With these two recent applications Qwest has either received or applied for pricing flexibility in 50 of 59 wire centers for general business services, and 44 of 59 wire centers for general residential services.

### **Promote Competition in Utah's Long Distance Markets**

Pursuant to federal guidelines and our Final Order Regarding Qwest's § 271 Compliance, issued on July 8, 2002, the Federal Communications Commission (FCC) granted Qwest approval to begin providing interstate long distance telephone service to its Utah customers on December 27, 2002. The FCC's approval for Qwest to provide intrastate long distance telephone service came as a result of Qwest's compliance with Section 271 of the Federal Telecommunications Act of 1996. As part of the Section 271 process, Qwest was required to meet the statutory requirements to open its local telecommunications market to competition. Qwest began offering long-distance service to its Utah residents in January 2003 and can now offer long-distance service to all of its residential and business customers in Utah. In order to ensure that Qwest continues to keep its local telephone market open to competition, we are actively monitoring Qwest's performance in providing wholesale services to its competitors.

### **Audit and Review Wholesale Performance Measures**

Qwest's Performance Assurance Plan (the Plan) was created as part of the long distance application process. The Plan provides a comprehensive set of performance measures and a performance remedy plan. The Plan includes detailed Performance Indicator Definitions (PIDs) to measure and compare Qwest's wholesale performance to Qwest's retail performance to determine whether Qwest is providing wholesale performance at parity with the performance it provides to itself, its retail customers and/or its affiliates, or at a benchmark level that provides CLECs with a meaningful opportunity to compete.

The Plan sets forth the procedures for Qwest's payment of liquidated damages to the CLECs (Tier 1 payments) and Qwest's payment of penalties to the State (Tier 2 payments) for performance that does not meet the necessary standards. As a part of the ongoing management of Qwest's post-Section 271 performance, we are in the process of setting up periodic reviews (along with several other states) of the effectiveness of the PIDs and the performance plan. These reviews are intended to be an opportunity for Qwest, the CLECs, and the Commission to reevaluate the PIDs and determine whether existing measures continue to be necessary or need to be modified, and whether new measures should be added.



Various measures have different levels of Tier 1 and/or Tier 2 classification (high, medium, or low) depending on the severity of the measure's effect on competition and/or customer satisfaction. Tier 1 payments are intended to compensate the CLECs for below-par performance that is customer affecting, thereby impairing the CLEC's ability to compete. Tier 2 payments are intended to compensate the citizens of this state for other substandard performance that inhibits competition. In establishing Tier 1 and 2 payments, we intended to ensure that the payments made because of sub-par performance to the CLECs were not simply included within the cost of doing business for Qwest. The plan is designed to be self-executing. Qwest provides the Commission and the CLECs with monthly data for each measure, calculates its payments, and remits those amounts to the appropriate parties. After the first six-month review has been completed, we will be able to get a snapshot of Qwest's wholesale performance related to several different areas of the company's provisioning to CLECs versus its provisioning of service to its affiliates and/or to itself. We believe this work is instrumental in ensuring that CLECs have an opportunity to compete, now that Qwest has opened its network to competitors.

### **Establish Unbundled Network Element Prices**

In August of 2002, Qwest filed UNE rates for its application to the FCC for long distance approval that were below some of the wholesale rates set by the Commission. Since many of the variables in the total element long-run incremental cost (TELRIC) studies change over time, we opened a new docket in April 2002, to ascertain if the loop rates set in 1999 were still appropriate. Division staff analyzed both the Qwest and AT&T cost proxy models and provided us recommendations for changes within the models. After much review, we chose to adopt the AT&T model with several adjustments, as we found that the basic model is capable of estimating the average cost of building a least-cost, most-efficient, forward-looking telecommunication network that can be used to calculate UNE rates.

We issued an Order in the loop rate docket on May 5, 2003. Several parties filed for reconsideration, and we granted reconsideration and gathered additional data to respond to the filing. In our Final Order issued on July 25, 2003, we clarified all requests for reconsideration raised by the various parties and set the weighted average total unbundled loop rate at \$12.97 (which is near the \$13.03 loop rate set by Qwest itself in the August FCC filing).

### **Set Terms and Conditions of Collocation**

Collocation is one method for CLECs to interconnect with Qwest for the purpose of accessing the local loop. Presently, CLECs are collocated in 32 of Qwest's 59 wire centers. As

of May 2003, there are 153 physical and virtual collocations along the Wasatch Front, using a combination of caged and cageless techniques.

### **Promote Technology and Advanced Telecommunications Services**

Encouraging carriers to provide more capacity for the backbone of the telecommunications network continues to be an important priority for the Commission. Pursuant to stipulations in the dockets examining the merger of Qwest and US West, and the sale of several US West rural exchanges in Utah, Qwest agreed to spend up to \$15 million to deploy broadband capabilities (e.g., DSL) to its Utah central offices. As a result of careful management, advances in technology, and state oversight, Qwest installed DSL equipment in every one of its 59 Utah central offices, finishing with Green Valley, on March 30, 2003. As a result, Utah is the first Qwest state to equip all its central offices with DSL capability. However, this does not mean that DSL services are available to all of Qwest's Utah customers. Due to the design of the loops and associated network infrastructure, and the capacity of the DSL equipment currently installed, some 40 to 50 percent of customers cannot get DSL service. The number of customers that have access to DSL has been increasing, and will continue to increase, as Qwest installs remote DSL technologies and upgrades the existing network infrastructure.

### **Implement Number Pooling, Conservation, Reclamation, and Porting**

One of our recent efforts to improve the efficiency with which telephone numbers are used is called "thousands-block number pooling," where each 10,000 block of numbers associated with a given prefix (an NXX code) is broken into ten sequential blocks of 1,000 numbers. Historically, local telephone companies received geographic numbers in blocks of 10,000. Carriers are required to return unused or underutilized blocks to a pooling administrator, which then assigns those thousands-blocks to other carriers in need of numbers. This effectively allows the assignment of numbers in blocks of 1,000 rather than 10,000 and conserves unused number blocks.

We have implemented number pooling for both the 435 and 801 area codes in Utah. The 801 area code was opened in January of 1947 and presently has 37.6 percent of phone numbers available for future assignment. Approximately fifty years later, we opened the 435 area code in September of 1997. At the current time, approximately 22 percent of these numbers are assigned and almost three fourths of the numbers are available for future use. Presently, there are 4,630,000 numbers assigned to carriers in Utah. The nationwide pooling schedule that was established by the FCC will be completed by December 2003. Because of successful number pooling within Utah, the 801 Area Code depletion and forecasted exhaust has been extended to

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September 30, 2005. In addition, since wireless carriers started pooling last year on November 24, 2002, the increased efficiencies from number reclamation are expected to increase.

Telephone number reclamation is another way we strive to conserve telephone numbers. Number reclamation prevents a telecommunications carrier from hoarding or stockpiling large blocks of telephone numbers that may go unused for a significant period of time. Once telephone numbers are returned, they are available for use by another company. Sequential number assignment establishes requirements for telecommunications carriers in distributing telephone numbers. In general, sequential number assignment requires telephone companies to assign telephone numbers within an existing opened block of one thousand numbers before assigning telephone numbers from another block of numbers. We continue to investigate area code usage, reclaiming of unused telephone numbers, and continue to implement telephone number conservation.

Local number portability (LNP) allows consumers to keep their phone numbers when switching wireline carriers, when switching wireless carriers, or when switching between wireline and wireless carriers. LNP makes it easy for customers to take their business elsewhere when they are dissatisfied with the quality of the service offered. The end result is increased competition and greater customer satisfaction. While LNP furthers the goal of competition, it can have a negative effect on number conservation. When a number is ported, a second number is used up in order to correctly route the ported number to a new carrier. LNP between wireline carriers has been very effective, and later this year the wireless industry will begin implementing wireless number portability pursuant to FCC Orders.

### **Review Tariffs and Price Lists**

When a company offers a new service, it must first submit a price list or tariff. The Division reviews the filings and makes recommendations for Commission action. During this report period we received 209 tariff and price list filings by telecommunications companies to introduce new services or to revise the rates, terms, and conditions of existing services.

### **Monitor Consumer Rights and Relations**

The Commission and Division work to help consumers to better understand their telecommunications bills and to have some control over what charges are found on their bills. Consumers and potential competitors can easily look up frequently asked questions such as: where do I pay my bill, how do I apply as a competitive local exchange carrier, how do I submit a complaint, and other useful tips. Both the Commission's and Division's web sites include

telecommunications-specific information and links to statutes and rules to keep the public and industry informed.

This past year we have been active in monitoring and enforcing rules and regulations for telecommunications corporations. For instance, we mandated that companies have on file with the Division, and posted in each customer service center, a “Customer’s Statement of Rights and Responsibilities.” Rule R746-240-1 states that these rules have been established to enforce uniform telecommunications service practices and procedures in order to assure adequate provision of residential and business services and in order to restrict unreasonable termination of service or refusal to provide telecommunications service to customers.

### **Facilitate Relay Utah for the Deaf and Hard-of-Hearing**

During 2003, we have implemented several key additions to Relay Utah. Video Relay Services (VRS) is one of the newest developments in the field of telecommunications relay services that we have made use of. VRS is a method of communication which allows a deaf individual to see an interpreter through a screen (computer or TV) which has a high speed Internet connection. The interpreter is at a remote location and can see the deaf person on a screen as well. The phone conversation is interpreted and allows deaf people to clearly express their message in their own language. Sprint (Utah’s relay provider) was the first company to establish a video relay service in July 2002. They can be contacted at [www.utvrs.com](http://www.utvrs.com). Utah Video Relay Service continues to gain momentum as more companies set up services for the deaf in Utah and throughout the country. This year a local Utah company, Sorenson Media, has entered the VRS arena. They have introduced new technology that will impact how VRS develops in the future. Sorenson VRS can be contacted at [www.sorensonvrs.com](http://www.sorensonvrs.com).

Another new technology has been developed for the hard of hearing called the CapTel, or captioned telephone. It is on-track to be introduced in Utah by the end of 2003. The CapTel allows hard of hearing individuals to not only hear, but read the information being spoken by the person he or she is calling. This technology makes having a conversation more natural and enjoyable for all involved. Both the CapTel and VRS are the most functionally equivalent form of communication that have ever been introduced for deaf and hard of hearing people.

### **Ensure and Maintain Public Safety**

Telecommunications is part of the nation’s infrastructure that is essential to the normal functioning of our economy and government. Utah Homeland Security is the lead agency for critical infrastructure threat/vulnerability assessment, warning, mitigation, criminal investigation and response. We continue to work with Utah Homeland Security and other public and private

partners to ensure that the telecommunications infrastructure is resistant to attack. The Division has organized a Disaster Recovery Plan in concert with utility companies and counties which increases the likelihood that the E911 networks throughout the State will continue to function in the case of a serious emergency.

### **Preserve and Advance Universal Service and Provide for the Lifeline Program**

The Utah's Universal Service Support Fund (USSF) currently provides \$6,887,373 in annual assistance to rural telephone companies to keep rates comparable across the state. Telecommunications corporations, or prospective customers may petition the Commission for funding to extend telephone service to areas not served when traditional methods of funding are not available. We granted eight one-time distributions from the State USF in 2002 totaling \$149,195.

The percentage of households that have telephone service is a measure of the success of federal and state universal service programs. This percentage is measured by the United States Bureau of the Census under an ongoing arrangement with the FCC. This undertaking allows the FCC, state commissions, and others to examine the possible effects of various actions on household decisions to maintain, acquire or drop telephone service. The most current data show that 96.4 percent of households in Utah have telephone service, compared to 95.5 percent nationwide.

In the past 12 months, the USSF also provided approximately \$1,109,916 in telephone assistance (Lifeline) for approximately 18,000 Utah customers. The telephone assistance plan is designed to help low income customers defray the monthly cost of telephone service.

It is notable that a majority of the revenues that currently make up the USSF now come from wireless providers. In 1993, wireless providers' collections accounted for less than 1 percent of the USSF, whereas they now account for approximately 60 percent of the fund. Accordingly the percentage of the fund coming from landline carriers has decreased substantially. The table below shows these changes by type, or class, of provider.

**Table 3.1 USSF Summary Data for 1993 and 2003  
Percentage of Funds Collected**

Company or Type of Provider	1993	2003
Qwest	69.9%	25.9%
Wireless Providers	.5%	60.3%
Competitive Local Exchange Companies	0%	6.0%
Rural Incumbent Local Exchange Companies	2.7%	2.6%
Toll Resellers	26.9%	5.2%

**Administer Extended Area Service Dialing**

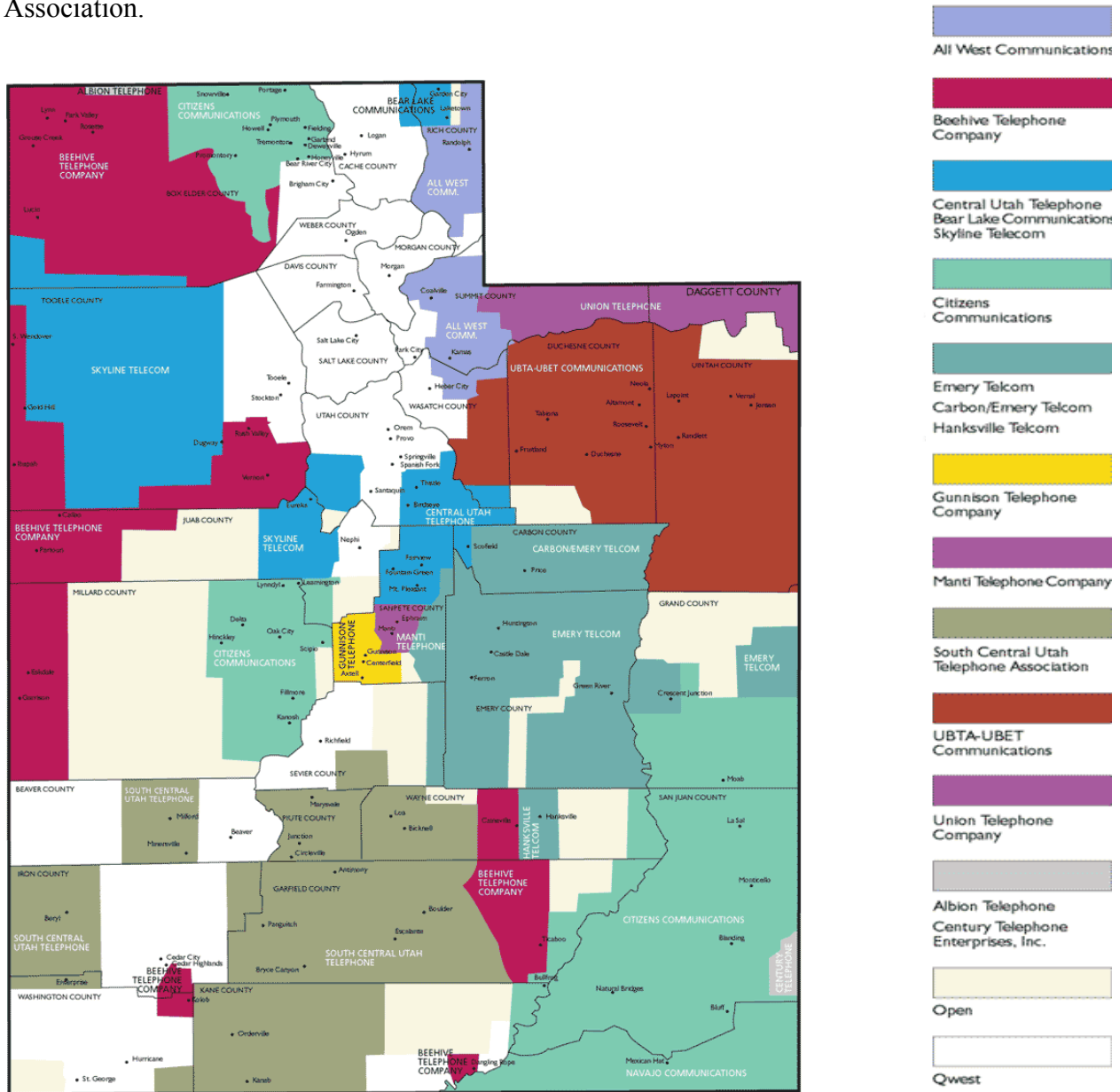
Extended Area Service (EAS) provides an expanded local toll-free calling area. Customers pay an increased monthly local service rate to pay for the cost of the physical facilities to link together the central offices included in the EAS area. The Commission published new EAS rules in November 2002 that became effective on March 10, 2003. In May 2003, we approved EAS for the Uintah Basin. We are anticipating an EAS case will be filed for Sanpete County and surrounding areas sometime this calendar year. We recently amended the EAS rule lowering the EAS threshold of support from 75 percent to 66.7 percent. This will likely increase the number of EAS areas approved in the future.

**Rural Telecommunications Services**

The fifteen member companies of the Utah Rural Telecom Association (URTA or rural ILECs) offer a broad range of services to their customers. URTA members provide telecommunications service to about eight percent of Utah telecommunications market, but cover approximately 80 percent of the area of Utah. Unlike Qwest, rural ILECs are either rate-of-return regulated telecommunications carriers or cooperatives. The Commission approved new rates and Universal Service Support distributions in four rate cases which were supported by formal audits

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conducted by the Division of Public Utilities. In addition, this year the United States Department of Agriculture provided a grant of \$1.3 million to some of Utah's rural telecommunications companies for broadband community infrastructure projects. The areas served by these rural ILECs can be seen on the following map from the Utah Rural Telecom Association.



### **Approved The Sale of Qwest Dex**

In August 2002, Qwest Corporation filed an application with the Commission for approval of the sale of its directories subsidiary, Qwest Dex. The Company sold the 14-state directories business in two transactions for a total of more than \$7 billion. Qwest earned more than \$30 million annually from its Yellow Pages and related activities in Utah. Over many years, the Commission and the Utah Supreme Court have consistently ordered that a portion of these profits should benefit the customers who underwrote the development of this business--whose names, addresses and phone numbers form the basis of the directories, and who create the value of the business by using them.

After stipulation by the parties, we issued an Order protecting the potential loss of the approximate \$2.50 by which the monthly price for each Qwest phone line in Utah is presently offset and ordered that the annual \$30 million benefit be continued indefinitely. In addition, to compensate customers for the loss of the increasing future value of the directories business, we approved a \$22 million settlement in the form of one-time credits of nearly \$33 to each telephone account. The good news for Utah customers is that Qwest's present telephone prices will continue unchanged, and the one-time credit is going out to Qwest's customers in the current billing cycle.

### **Reduce Regulatory Burdens**

We have been instrumental in simplifying the reporting process for telecommunications service providers in the state. Since last year's report, we implemented revised rules for Public Utility Reports (See Rule R746-400). Inasmuch as there have been many technological changes to the telecommunications industry in recent years, the revised rule clearly defines new terms and specifies reporting requirements so that companies provide data in a uniform manner. We also held a Technical Conference for all companies and regulatory directors in the state, where we clarified points of methodological confusion, unclear definitions, and other past reporting problems. This resulted in a new Legislative Information Form that has been posted on the Division's web site and is simpler for companies to complete. Telecommunications service providers can now report by email, by postage, by fax, or can download the form on the Internet at the following web site: [www.publicutilities.utah.gov/tc017-competrpt.html](http://www.publicutilities.utah.gov/tc017-competrpt.html). This is in keeping with our objectives to promote the public interest in utility regulation and to make the regulatory process flexible and simple for the public.



### **Enforce and Monitor Service Quality Rules**

The Commission promotes telecommunications service quality in Utah by tracking service quality and the customer service practices of local exchange companies. The Division and Commission resolve customer complaints through informal and formal complaints processes. At the first contact a complaint is designated as informal, and is handled by the Division. If the complaint cannot be resolved through the informal process, then the Commission undertakes a formal complaint process to reach a final resolution. As with all types of complaints mentioned here, the Division investigates and recommends appropriate action.

Under ongoing service quality monitoring, Qwest continues to improve their customer service as evidenced by the decrease in the number of complaints. For 2002, Qwest's total complaints dropped by 13 percent. Specifically, complaints decreased by the following percentages: Billing, 7 percent; shut-off, 12 percent; installation, 40 percent; and repair, 25 percent. However, there were enough problems with Qwest meeting some service standards that in accordance with Commission Rules a price index penalty was assessed against Qwest for 2002.

Other telecommunications carriers that have entered the local Utah telecommunications market have experienced service problems as well. The Commission monitors these corporations interactions with customers and their service quality. We have observed that the number of complaints against these competitive carriers has also been in decline generally, while the total number of lines served by these carriers has been increasing. Although this trend is encouraging, there are two areas of concern; shut-off notices and billing. Shut-off notice complaints increased from 2001 to 2002. Although the number of billing complaints decreased over the same time period the relatively high number of complaints suggests there is still a significant problem to be addressed.

As of June 30, 2002, the Division has received 39 complaints from customers of the 15 rural telecommunications providers--the same number of complaints as last year. These complaints primarily involve billing and customer service problems.

### III. COMPETITION IN UTAH'S LOCAL SERVICE MARKET

#### Defining and Measuring Competition

A competitive market is defined by economists as one in which a substantial number of buyers and sellers trade a particular good or service independently, and thus, no single buyer or seller is powerful enough in the marketplace to independently set market prices or determine the quantities exchanged. Competition is more likely where there is freedom of entry and exit and buyers and sellers have complete knowledge about the goods or services traded. However, Utah law does not define what constitutes a competitive market. In an effort to provide information on this question the Commission has (both in previous reports and this year's report) conducted a market analysis that provides descriptive data and two unbiased mathematical yardsticks which focus on the question of measuring how competitive the Utah telecommunications market actually is. In evaluating the success of competition in the Utah market it is important to keep in mind that measuring the effect of competition is complicated by factors such as the boundaries of a given market, the definition of the good or services provided, and customers' perceptions.

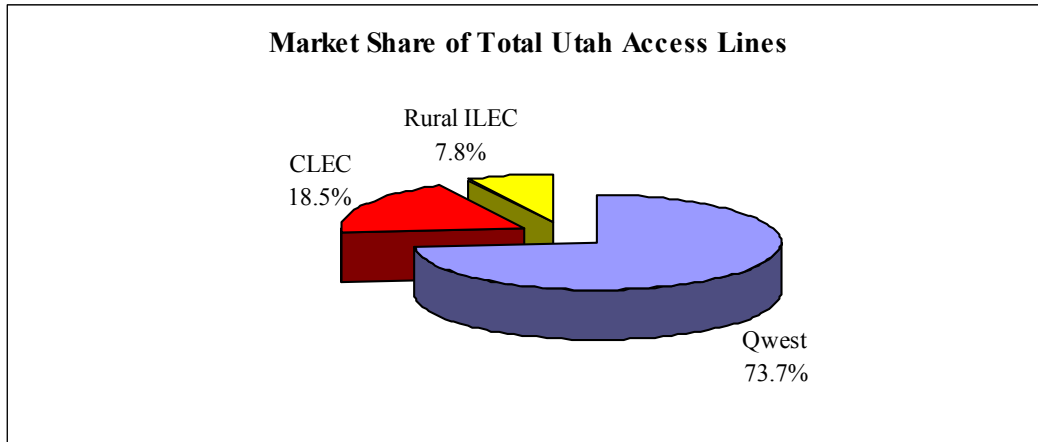
First, we look at the number of carriers actually providing service and where they are providing service. A customer who has only one provider available may not receive the hoped for benefits of competition that may be occurring elsewhere in the State. Second, we examine how much of the market each class (ILEC, CLEC) of company controls, as measured by the number of access lines and customers. Third we compute the Herfindahl-Hirschman and Effective Firm indices and examine how they have changed over time. Fourth, we look at revenues and growth rates over time.

#### 1. Number of Carriers, Their Location and Scale of Business

While competition for local telephone service in Utah continues to be primarily focused on business customers, interest and activity in the residential market is becoming much more noticeable. Competitive activity continues to be concentrated in Utah's more densely populated areas. Since the legislature first authorized local exchange telephone competition in 1995, we have approved 119 companies to provide telecommunications service in competition with Qwest, however, only 77 remain. As of June 30, 2003, competitors service approximately 221,252 access lines in Utah, or about 18.5 percent of Utah's almost 1.2 million access lines.<sup>1</sup> The market share for Qwest, the rural ILECs, and the CLECs collectively are shown in the following diagram.

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<sup>1</sup>There are 277 lines being served by CLECs outside of Qwest's current service territory.



### 1.1 Methods of Competitive Entry

Competitors provide local exchange telephone service through a variety of methods: by building their own facilities; by leasing unbundled network elements from the incumbent and using those elements (either alone or in conjunction with their own facilities) to provide service to their end-user customers; or by purchasing the ILEC's service directly and reselling that service to the CLEC's own end-user customers.

Facilities-based telecommunications companies own or lease physical telecommunications facilities, while resellers purchase or lease services from facilities-based providers to acquire, switch, enhance, transport, or terminate traffic. Facilities-based carriers do not necessarily carry all of their traffic over their own facilities and may purchase or lease facilities of others to help furnish the needed services.

Seventy-seven CLECs are currently certificated to provided local telecommunications services in Utah exchanges served by Qwest; however, only 28 of them actually do so. Widespread local service competition has yet to develop throughout all of Utah. Furthermore, in some Qwest exchanges with competitors present, business customers are not receiving the anticipated benefits of price competition as a result of pricing flexibility. In exchanges where Qwest has been granted pricing flexibility, prices for basic business service have remained unchanged from year-to-year. While in the exchanges where pricing flexibility has not been granted the Price Index has mandated price decreases. As a result in exchanges where Qwest has been granted pricing flexibility business customers now pay more for basic service than do business customers in areas where pricing flexibility has not been granted.

### 1.2 Describing the Market

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The following table shows the percentage of lines provided by CLECs in each of Qwest's exchange areas.

**Table 3.2 Utah's Local Service Market 2003**

Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Alta	American Fiber Networks, Qwest, XO Utah	3.8	4.5
American Fork	1-800-Reconex, AT&T Communications, Dieca, Electric Lightwave, Eschelon, Excel, First Digital, Integra, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	2.1	35.7
Beaver	McLeodUSA, Qwest, Sprint	0.2	7.9
Bountiful	1-800-Reconex, AT&T Communications, Ceristar, Comcast, Comm South, Dieca, Electric Lightwave, Eschelon, Excel, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	6.6	34.3
Brianhead	Excel, McLeodUSA, Qwest	0.1	2.6
Brigham City	1-800-Reconex, AT&T Communications, Eschelon, Excel, Integra, Level 3, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Z-Tel	1.1	29.8
Cedar City	1-800-Reconex, AT&T Communications, Comm South, Eschelon, Excel, Integra, Level 3, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Z-Tel	0.3	42.1
Corrine	Qwest	0.0	0.0
Clearfield	1-800-Reconex, AT&T Communications, Ceristar, Dieca, Electric Lightwave, Eschelon, Excel, Integra, Level 3, MCI Metro Access, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	4.1	34.8

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Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Cottonwood	Brooks Fiber, Dieca, Eschelon, Excel, First Digital, MCI Metro Access, McLeodUSA, Qwest, Sprint, Tel-West, Vartec, XO Utah	4.3	43.4
Draper	Brooks Fiber, Dieca, Eschelon, Excel, First Digital, MCI Metro Access, McLeodUSA, Qwest, Sprint, Tel-West, Vartec, XO Utah	4.2	33.5
Farmington	AT&T Communications, Electric Lightwave, Eschelon, Excel, First Digital, Integra, MCI Metro Access, Qwest, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	4.8	17.1
Grantsville	Excel, McLeodUSA, Qwest, Sprint	0.7	9.5
Heber City	1-800-Reconex, Eschelon, Excel, McLeodUSA, Qwest, Sprint, TCG of Utah	0.6	22.8
Holladay	1-800-Reconex, AT&T Communications, Brooks Fiber, Comcast, Comm South, Dieca, Electric Lightwave, Eschelon, Excel, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	10.0	44.8
Huntsville	1-800-Reconex, American Fiber Networks, Eschelon, MCI Metro Access, McLeodUSA, Qwest, Z-Tel	3.4	15.2
Hurricane	1-800-Reconex, Eschelon, McLeodUSA, Qwest, Sprint, Z-Tel	0.4	12.3
Hyrum	1-800-Reconex, Excel, McLeodUSA, Qwest, Sprint, Tel-West, Z-Tel	0.2	18.0
Kaysville	1-800-Reconex, Excel, McLeodUSA, Qwest, Sprint, Tel-West, Z-Tel	4.8	32.8

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Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Kearns	1-800-Reconex, AT&T Communications, Brooks Fiber, Comcast, Comm South, Dieca, Electric Lightwave, Eschelon, Excel, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	32.2	33.3
Layton East	1-800-Reconex, American Fiber, Eschelon, MCI Metro Access, McLeodUSA, Qwest, Sprint, XO Utah	2.4	16.9
Leeds	Qwest	0.0	0.0
Lehi	1-800-Reconex, AT&T Communications, Electric Lightwave, Eschelon, Excel, Integra, Level 3, McLeodUSA, Qwest, Sprint, Vartec, XO Utah, Z-Tel	0.8	32.3
Logan	1-800-Reconex, AT&T Communications, Eschelon, Excel, Integra, Level 3, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Z-Tel	0.2	26.1
Magna	1-800-Reconex, AT&T Communications, Brooks Fiber, Comcast, Electric Lightwave, Eschelon, Excel, Integra, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Tel-West, XO Utah	27.0	27.5
Midvale	1-800-Reconex, American Fiber Networks, AT&T Communications, Brooks Fiber, Ceristar, Comcast, Comm South, Dieca, Electric Lightwave, Eschelon, Excel, First Digital, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	7.3	58.9
Monroe	1-800-Reconex, Excel, Level 3, Qwest, Sprint, Tel-West	0.5	32.4
Morgan	1-800-Reconex, AT&T Communications, McLeodUSA, Qwest	0.1	16.8
Mountain Green	Qwest	0.0	0.0

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Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Murray	1-800-Reconex, AT&T Communications, Brooks Fiber, Ceristar, Comcast, Dieca, Electric Lightwave, Eschelon, Excel, First Digital, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	22.4	44.3
Nephi	1-800-Reconex, Excel, McLeodUSA, Qwest	0.2	8.4
Ogden	1-800-Reconex, American Fiber Networks, AT&T Communications, Brooks Fiber, Ceristar, Comcast, Dieca, Electric Lightwave, Eschelon, Excel, First Digital, Integra, Level 3, MCI Metro Access, McLeodUSA, New Edge Networks, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	21.0	35.5
Orem	1-800-Reconex, American Fiber Networks, Ceristar, Dieca, Eschelon, Excel, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	1.1	28.2
Parawon	1-800-Reconex, McLeodUSA, Qwest, Sprint, Z-Tel	0.5	4.5
Park City	1-800-Reconex, All West Utah, American Fiber Networks, AT&T Communications, Comcast, Dieca, Eschelon, Excel, Level 3, McLeodUSA, Qwest, Sprint, TCG of Utah, XO Utah, Z-Tel	4.3	18.6
Payson	1-800-Reconex, AT&T Communications, Eschelon, Excel, Integra, McLeodUSA, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	1.2	12.3
Pleasant Grove	1-800-Reconex, Dieca, Electric Lightwave, Eschelon, Excel, Integra, McLeodUSA, New Edge Networks, Qwest, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	2.4	36.7
Provo	1-800-Reconex, AT&T Communications, Brooks Fiber, Ceristar, Comcast, Dieca, Electric Lightwave, Eschelon, Excel, Integra, Level 3, MCI Metro Access, McLeodUSA, New Edge Networks, Qwest, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	40.9	43.0

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Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Richfield	1-800-Reconex, Eschelon, Excel, Integra, Level 3, McLeodUSA, Qwest, Sprint	0.4	10.5
Richmond	1-800-Reconex, AT&T Communications, Excel, McLeodUSA, Qwest, Sprint	0.3	22.0
Riverton	Brooks Fiber, Dieca, Eschelon, Excel, MCI Metro Access, McLeodUSA, Qwest, Sprint, Tel-West, Vartec, XO Utah	2.2	26.7
Salem	1-800-Reconex, McLeodUSA, Qwest	0.0	13.4
Salina	1-800-Reconex, McLeodUSA, Qwest, Sprint, TCG Utah, Z-Tel	0.3	13.1
Salt Lake	1-800-Reconex, American Fiber Networks, AT&T Communications, Brooks Fiber, Ceristar, Comcast, Comm South, Dieca, Electric Lightwave, Eschelon, Excel, First Digital, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Universal Access, Vartec, XO Utah, Z-Tel	13.4	43.3
Santaquin	Excel, McLeodUSA, Qwest, Sprint, Vartec	0.8	7.0
Smithfield	1-800-Reconex, Excel, McLeodUSA, Qwest, Sprint, TCG of Utah	0.3	28.4
Spanish Fork	1-800-Reconex, Ceristar, Electric Lightwave, Eschelon, Excel, Integra, McLeodUSA, Qwest, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	1.7	23.6
Springdale	McLeodUSA, Qwest, Sprint	0.2	2.7
Springville	1-800-Reconex, AT&T Communications, Electric Lightwave, Excel, Integra, McLeodUSA, New Edge Networks, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	1.5	16.7
St. George	1-800-Reconex, AT&T Communications, Comm South, Eschelon, Excel, Integra, MCI Metro Access, McLeodUSA, New Edge Networks, Quantum Shift, Qwest, Sprint, Vartec, Z-Tel	3.4	16.8



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Exchange Area	Local Exchange Companies Present	Percentage of Lines Provided by CLECs	
		Residential	Business
Tooele	1-800-Reconex, Eschelon, Integra, McLeodUSA, Qwest, Sprint, Tel-West, XO Utah, Z-Tel	1.3	9.7
Veyo *	Excel, Qwest		
West Jordan	1-800-Reconex, American Fiber Networks, Eschelon, Excel, MCI Metro Access, McLeodUSA, Qwest, Sprint, Vartec, XO Utah, Z-Tel	3.9	22.0

\* Percentage withheld to protect the individual company line count information.

### 1.3 National to Utah Comparisons

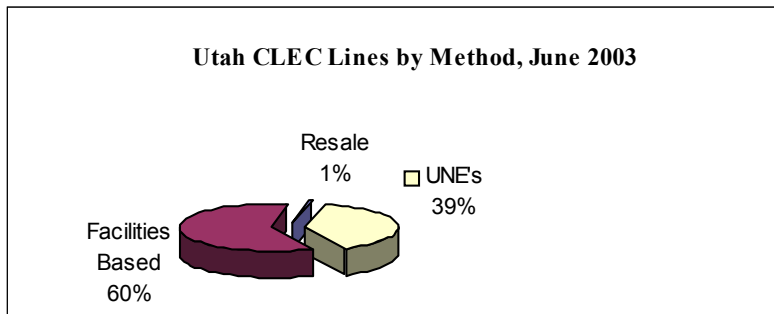
FCC data for Utah and the nation corroborates Qwest's market share dominance. However, the FCC does not require carriers with less than 10,000 lines in each state to report, and there is a substantial lag time before the data is compiled and made available. Therefore, the FCC data is not as accurate or recent as the Utah-specific data we provide in this report. However, the FCC data is useful for identifying trends and allowing broad comparisons between Utah and the rest of the country. The FCC data indicates that as of December 31, 2002, ILECs in Utah served 85 percent of the more than 1.2 million lines in the state, and CLECs served 15 percent of them. In addition, the FCC data demonstrates that the CLEC market share in Utah is higher, and rate of growth is lower, than is the case nationally, as the table below shows.

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**Table 3.3 FCC Data Total Local Telephone Lines Reported  
(as of December 31, 2002)**

		<b>ILEC Lines</b>	<b>CLEC Lines</b>	<b>Total Lines</b>	<b>ILEC Share</b>	<b>CLEC Share</b>
Utah	Dec. 2001	1,086,537	155,992	1,242,529	87%	13%
	Dec. 2002	1,075,061	194,352	1,269,413	85%	15%
	% Growth	1.05%	24.5%	2.1%		
Nationwide	Dec. 2001	172,628,691	19,653,441	192,282,132	90%	10%
	Dec. 2002	162,742,937	24,765,873	187,508,810	87%	13%
	% Growth	-5.7%	26%	-2.5%		

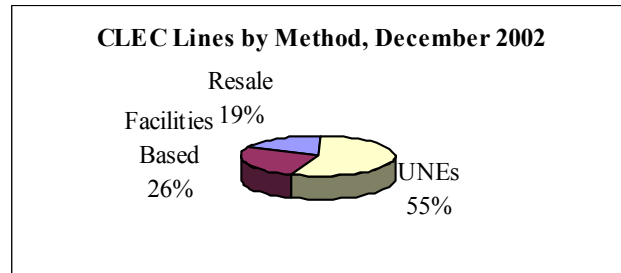
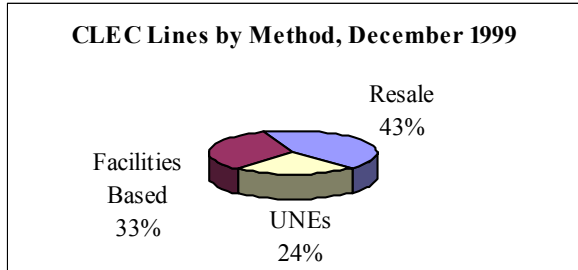
Source: FCC Form 477 data for the periods ending December 31, 2002 and December 31, 2001.



Competitive providers in Utah reported providing about 1 percent of their switched access lines by reselling the services of other carriers and about 39 percent by means of unbundled network elements, including the UNE-P Platform, leased from other carriers, with the remainder (about 60 percent) being served over the CLEC's own facilities.

National trends illustrate that CLECs' primary entry vehicle has changed from predominately using resale in December 1999 to the use of unbundled network elements in December 2002 as the following diagram shows.

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**2. Market Share and Annual Growth Information**

The following summary data is compiled based on data requests from Utah telecommunications service providers that is provided to the Division. This information includes data as recent as June 30, 2003.

Table 3.4 Summary Data for 2003

Data	Qwest	CLECs	Other ILECs
Number of Local Access Lines Served	879,189	221,252	92,691
Residential	643,997	77,090	64,373
Business	235,192	144,162	28,318

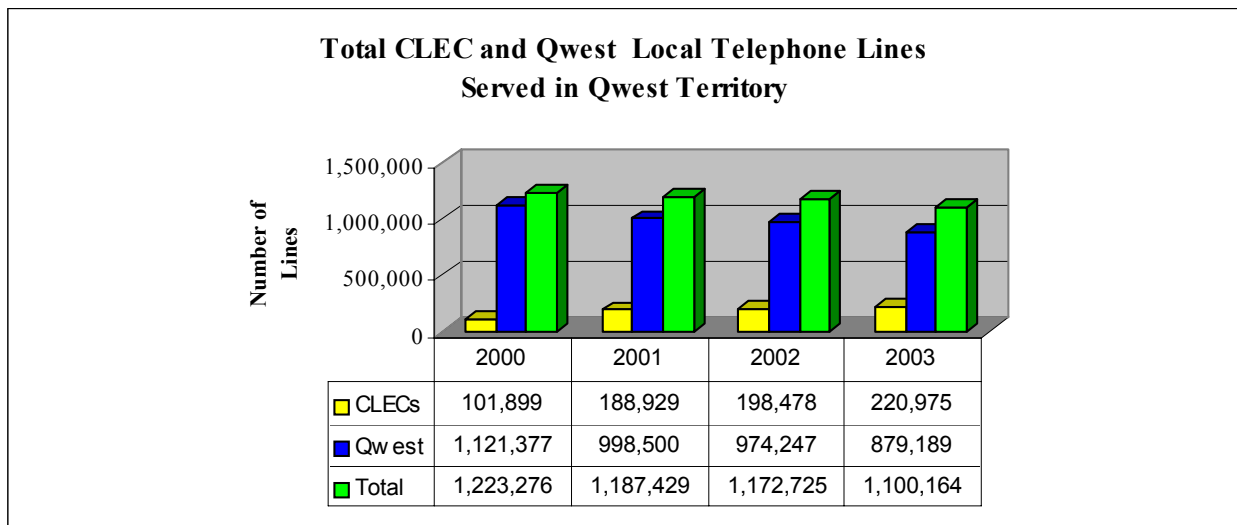
Table 3.5 Annual Growth, ILECs 2002 to 2003

Data as of June 30	Qwest June 2002	Qwest June 2003	% Growth	Other ILECs June 2002	Other ILECs June 2003	% Growth
Number of Local Access Lines Served (as of June 30, 2003)	974,247	879,189	(9.8%)	95,000	92,691	(2.4%)
Residential	686,650	643,997	(6.2%)	67,813	64,373	(5.1%)
Business	287,597	235,192	(18.2%)	27,187	28,318	4.2%

Table 3.6 Annual Growth, CLECs 2001 to 2003

Data as of June 30	2001 % Growth		2002 % Growth		2003 % Growth	
Number of Local Access Lines Served	101,899	113%	161,218	58%	221,252	37%
Residential	6,094	638%	45,305	643%	77,090	70%
Business	95,805	104%	115,913	21%	144,162	24%

The graphic below illustrates the changes in the number of CLEC lines that are served solely in Qwest’s territory, as well as changes in Qwest’s access lines from 2000 through 2003.



### 3. Competitive Structure/Effect Analysis

### 3.1 Herfindahl-Hirschmann Index for Qwest’s Utah Operations

A lack of competition can be evidenced by the level of concentration in the market. Market concentration is frequently measured using what is known as the Herfindahl-Hirschmann Index (HHI). The federal Department of Justice Merger Guidelines indicate that HHI values between .100 and .180 reflect a moderately concentrated market. While HHI values over .180 are considered to be highly concentrated markets, and values below .100 are considered competitive to mildly concentrated. High HHI values indicate a concentration of market power and therefore a lack of effective competition. The 2003 HHI values for the Qwest service territory (the only areas where direct competition is occurring) are high. These values are residential .804, and business .408. These values reflect the fact that the market for basic telecommunications service remains highly concentrated in Utah. The potential danger of significant market concentration is that is that the dominant firm may be able to exercise market power in a way that thwarts the desired benefits of competition from occurring, by unilaterally setting prices and service offerings. However, in the case of the Utah market, the HHI values have demonstrated a sustained downward movement in each of the past four years, as shown in the table below.

Table 3.7 Herfindahl-Hirschmann Index Values

<b>Herfindahl-Hirschman Index for Qwest’s Utah Operations</b>			
Year	Total Market	Residential Market	Business Market
2000	.844	.985	.614
2001	.716	.888	.480
2002	.695	.853	.472
2003	.644	.804	.408

### 3.2 Effective Firm Index for Qwest’s Utah Operations

The companion index to the HHI is the Effective Firm Index. The effective firm index provides a mathematical measure of the likely effect of the competitors' presence on the market. For relatively low values of the index (less than 2) the decimal portion of the index represents the proportional effect of all the competitors as compared to one effective competitor. As long as there remains one dominant firm the approximate effect of the competitors can be obtained by subtracting the value of one from the Effective Firm Index's value. For the Utah market the approximate joint effect of the competitors in the residential market is about 24 percent of one effective competitor: while for the business market the approximate effect is about 145 percent of an effective competitor. Generally Effective Firm Index values of two or more are necessary before economic theory would predict benefits from competition. The following table provides the Effective Firm Index values for the past four years.

Table 3.8 Effective Firm Index Values

<b>Effective Firm Index</b>			
Year	Total Market	Residential Market	Business Market
2000	1.18	1.02	1.63
2001	1.40	1.13	2.08
2002	1.44	1.17	2.12
<b>2003</b>	<b>1.55</b>	<b>1.24</b>	<b>2.45</b>

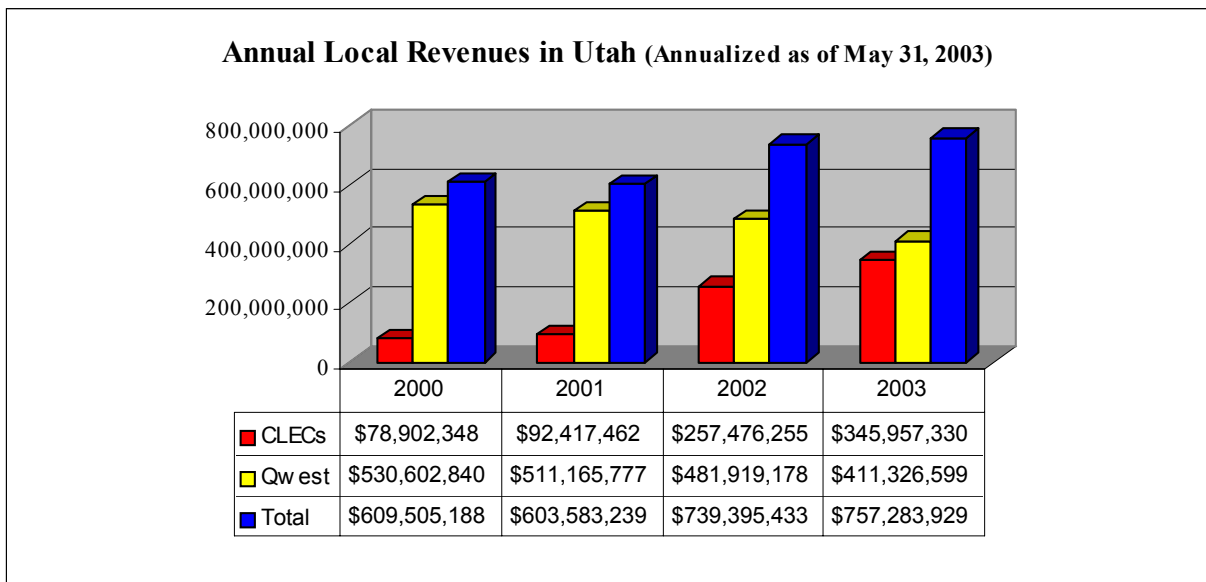
The values in these two tables show that movement towards a competitive environment in Utah's telecommunications markets continues to occur. While the HHI values are high and the Effective Firm Index values are low, improvement has been noted each year. This suggests that the policies currently in place are working to promote competition. As has been noted elsewhere much of the competitive interest has been in business customers and in population centers, the values above generally conform with that observation. The business market is further along the path towards effective competition.

**4. Revenue Reports**

**Table 3.9 2003 Fiscal Year Telecommunications Operating Revenue**  
(Based on YTD figures as of May 31, 2003)

Category of Revenue	Qwest	CLECs	Other ILECs
Residential Local Exchange	74,833,872	9,988,996	5,361,082
Business Local Exchange	51,560,121	19,715,571	2,997,737
Intra-State Toll	5,448,065	17,054,270	3,239,519
Inter-State Toll		72,330,636	3,512,119
Other	39,544,025	25,059,414	19,032,220
<b>Total</b>	<b>\$171,386,083</b>	<b>\$144,148,888*</b>	<b>\$34,142,677</b>

(The revenues in Table 3.5 are reported to the Division by each company and may not include all earnings or Commission adjustments.)



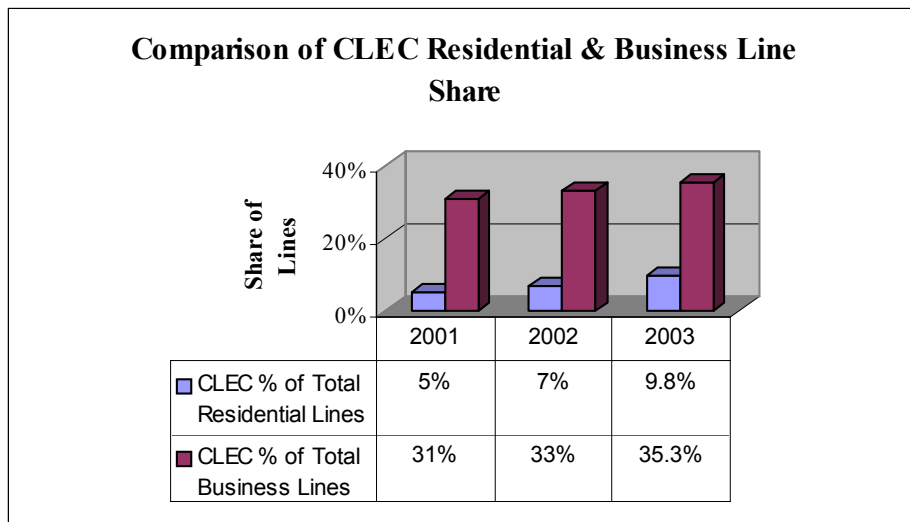
The market share, location, Herfindahl-Hirschmann/Effective Firm, and revenue analyses show that competition has a foothold in the Utah market. While the telecommunications industry

was affected by the downturn in the stock market, the competitors continued expanding in the Utah market. However, much uncertainty remains. The recent Triennial Review Order by the FCC may alter the fundamental relationships between CLECs and Qwest. Further, Qwest remains the dominant firm in both the residential and business markets. Federal initiatives pending before Congress and stirring within the FCC will undoubtedly affect the current dynamics within the telecommunications industry in Utah and could significantly change the business plans and the business relationships among ILECs, CLECs, Internet service providers, and other related industry participants. Much remains to be done in order to ensure that the market continues to develop, and that the likelihood of effective competition continues to increase.

**Challenges to Competition**

While competition can promote lower prices, innovation, and improved service quality, competition can also present some challenges and hazards to consumers. To realize benefits customers need full information in order to make informed choices, effective competition must be present, and laws and institutions must offer protection from fraudulent individuals and companies that may attempt to victimize consumers. To this end, we have enforced Rule R746-240-1 that establishes uniform telecommunications service practices and procedures in order to assure adequate provision of residential and business services and to restrict unreasonable termination of service or refusal to provide telecommunications service to customers.

Since January 2003, eight companies providing local exchange service have discontinued service in the state of Utah. However, the number of bankruptcies has still decreased considerably compared to 2002. Often carriers that are reorganized or combined with other companies emerge as companies that are



more able to compete in the telecommunications marketplace because of lower debt levels and leaner organizations with lower expenses. As a result of these setbacks, local service competition continues to grow in Utah at a slow but steady pace resembling last year's growth. There was a net gain of approximately 59,941 CLEC lines in 2003 compared to almost 161,218 lines the year before.



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A worrisome trend that is becoming more noticeable is that various companies are attempting to set up “mini” monopolies by entering into exclusive contracts with developers or property owners that either exclude or set strict limits on other local exchange carriers’ access to the eventual end-user customers. The Commission is in the process of investigating the issue and will determine if a Commission Rule regarding access to “bottleneck” facilities is needed to address the anti-competitive nature of these exclusive contracts. We note that Utah’s 1995 Act addresses access to essential facilities without specifying whether the facilities are owned by an ILEC or CLEC.

#### **IV. INDUSTRY TRENDS, COMPETITIVE INNOVATIONS, AND OTHER FORMS OF COMPETITION**

Wireless options represent a growing challenge to traditional phone service providers. We do not regulate wireless companies (cell phone or paging services) when such services and facilities are provided under a license granted by the FCC; therefore, acquiring accurate data on this segment of the market is difficult. However, based on the information that we can review, we believe that wireless demand remains high, and that some consumers have begun to substitute wireless phones for traditional landline phones. The FCC estimates that 3 to 5 percent of wireless customers use their wireless phones as their only phone. Wireless communications services are competing with local exchange carriers for new growth and as substitutes for a second line in homes and small businesses. The FCC reported that as of December 31, 2002, Utah had 1,052,522 wireless subscribers. Contrast that number with the 1.2 million land lines in the State to understand just how significant the rapidly growing wireless market is. This is a 14.5 percent increase from December of 2001.

Many wireless plans include a block-of-time calling plan that people use to carry long distance calls. Many analysts believe that when wireless prices are low enough and the new number portability of wireless phones goes into effect, consumers will look to wireless communication as an all out replacement to their traditional land line phone. Wireless offers a mobility characteristic that significantly distinguishes it from wireline service and is becoming less of a luxury and more of a necessity. Some indicators of wireless success will be lower prices and more creative packaging.

Consumers have also benefitted significantly from strong competition in the long-distance market. With respect to long distance telecommunications services, Utah customers have a wide selection of carriers, terms, conditions and prices which have been brought about by the functioning of the competitive market. In addition, the entry of Qwest into Utah's long distance market will likely impact this segment of the market significantly. While it is too early to evaluate the results of Qwest's entry into the long distance market, we do note that Qwest is offering innovative bundling of services, and responding to market share losses aggressively.

Broadband Internet demand has also grown. While the availability of advanced services, such as DSL and cable telephony, continues to increase, a continuing challenge for Utah is how to encourage widespread deployment of these services, especially in rural areas of the state. Although supply and demand for broadband services may be affected by many variables, the primary issues appears to be price. Other issues such as population demographics, distance, and technology factors are significant factors as well. "Broadband" is a term used to describe high-speed access to the Internet. Modes of broadband include digital subscriber line (DSL) service provided by phone companies over telephone lines, high-speed access via cable typically

provided by cable television providers, satellite, and wireless services. Most subscribers to DSL service are residential customers and small businesses. Because DSL service uses the high frequency portion of the “loop” or phone line, and voice service uses the low frequency portion of the loop, DSL and voice service can be provisioned together over a single loop.

Digital subscriber line services continue to increase their market presence. Market share statistics collected by the FCC reveals that of the high-speed lines in Utah, 89.3 percent were for residential and small business use and the remaining 10.7 percent were lines in service which were connected to medium and large business, institutional, or government end-user customers. An FCC report released in July 2003 noted that 15 carriers in Utah offer broadband access. As illustrated in Table 3.10 below, the number of broadband users nationwide has steadily increased since 2000, more than tripling in the last two years.

Table 3.10. Number of Broadband Users Nationwide (2000-2002)

Broadband Technology	June 2000	June 2001	June 2002
Cable Modem	2,284,491	5,184,141	9,172,895
DSL	951,583	2,693,834	5,101,493
Other Wireline	758,594	1,088,066	1,186,680
Fiber	307,151	455,593	520,884
Satellite/Fixed	65,615	194,707	220,588
<b>Total</b>	<b>4,367,434</b>	<b>9,616,341</b>	<b>16,202,540</b>

Source: High-Speed Services for Internet Access: Subscribers as of December 2001, FCC (Dec. 2002)

Alternatives to traditional wireline telephone service, such as wireless communications and cable telephony, are spurring local exchange carriers to become more competitive and innovative. Our public policy goals continue to support a technology neutral, pro-competitive approach to encouraging other forms of competition. In other words, we do not favor any particular technology as a delivery platform for advanced services.

Voice Over Internet Protocol (VOIP) is poised to revolutionize the scope of traditional voice communications. VOIP is simply the transport of voice traffic using the Internet Protocol (IP), which also enables file sharing, shared printers, e-mail, the world wide web, streaming audio and video, instant messaging, and numerous other applications. IP is a packet-based protocol which means that the traffic is broken into small packets that are sent individually to their destination, rather than utilizing circuit switched telephony to process voice calls, as we know it

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today. ILECs, CLECs, and Internet Providers are readily adopting VOIP because their companies will realize tremendous cost savings in the administration of their networks.

Although providing VOIP is desirable to telephone companies and Internet providers, it may not be classified as a telecommunications service by the FCC and therefore may not be subject to common carrier regulation. Both ILECs and long distance providers are petitioning the FCC to classify IP technology as telecommunications, seeking authority to collect access charges from IP providers. However, there is still widespread regulatory forbearance in relation to Internet and broadband services.

Taken together, these trends indicate that the telecommunications industry as a whole is undergoing significant restructuring that will bring more choices to consumers. Results of the growing competition are evident in the number of optional toll package alternatives available and the number of providers who offer them, as well as declining prices for higher usage customers who do not utilize basic toll rates. Innovative bundling of services (both local and long distance) and new pricing plans are blurring the distinction between toll and local services. Many providers are offering unlimited local and long distance services plus unregulated features at one combined price. In some cases, these bundles also include wireless and Internet access services.

## **V. POLICY RECOMMENDATIONS**

This year CLECs have again made progress in the Utah telecommunications market. While CLEC market presence continues to grow, Qwest still holds a dominant position in the market. The Commission will continue its work to further competition in the telecommunications industry. As we move forward, it is important to create an environment in which customers are able to easily and readily move from one provider to another to get the service offerings they desire. That will help to keep service prices in check and sustain the viability of the market over the long term.

At this time of uncertainty and pending federal actions, we make no recommendations for state policy initiatives or changes for the 2004 legislative session. However, in the event legislation is proposed by some other party, the Commission suggests the following set of criteria by which to judge the proposal:

1. Does the proposal promote competition or consolidation in the industry?
2. Will the proposed changes expedite the progress CLECs have made to date or will they stall it?
3. Will there be resulting litigation and what effect will that have?
4. If the changes are made, will investors be more or less willing to invest capital in the telecommunications industry in Utah?
5. Does the legislation create any unfair advantages?

## **GLOSSARY**

Advanced telecommunications services - The new service offers that ILECs, CLECs, and others are providing over telecommunications networks. This category includes high speed data networks, various vertical features, video, and other services. Basic telecommunications is often referred to as POTS, meaning “Plain Old Telephone Service”, the new advanced services are called PANS, for “Pretty Amazing New Stuff”.

Broadband - High capacity internet or data service.

Caged and Cageless Collocation techniques - Related to the method by which Competitive Local Exchange Carriers (CLECs) locate equipment in a central office of another carrier. Caged refers to a practice of building a secure “cage” around the CLEC’s equipment, while cageless refers to locating in an open area with other carriers.

Certificates of Public Convenience and Necessity - The certificate that the Public Service Commission issues to a utility (ILEC, CLEC, Power, Natural Gas, Water) that allows them to operate in the State.

Collocation - Locating equipment (usually switches) inside the central office of another carrier.

CLEC, Competitive local exchange carrier - Alternative carrier for dial-tone, these carriers were authorized by the State’s 1995 Act, and the 1996 federal Act.

Cost proxy models - Models that provide an estimate of the costs an efficient, forward-looking carrier would incur to serve the full demand for basic telecommunications services in a given area. (See TELRIC)

EAS, Extended area service - Allows a caller to call outside of the geographic area covered by the central office switch through which they get their service. A monthly charge is applied to all customers receiving service through a given switch that pays the costs of providing transport to the other central office switches that are covered by the EAS area. Commission rules establish a procedure by which customers or carriers may petition the Commission to change (increase or decrease) EAS areas.

Herfindahl-Hirschmann Index - A mathematical measure of concentration and/or market power in an industry. A companion index is the Effective Firm Index. Both provide a measure of the likely competitiveness of a given market.

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ILEC, Incumbent local exchange carrier - The incumbent is the telecommunications company that traditionally has provided service to a specific area. Often referred to as the provider of last resort.

Interconnection agreement - The contract between and ILEC and CLEC that determines how they will exchange telecommunications traffic and what service and facilities will be purchased, and how and where the facilities will be installed, used, and maintained.

Land line, local loop, or loop - The physical connection between a premise (home or business) and the central office that carries the telecommunications signal.

Life line - A program designed to reduce the cost of basic telecommunications service for people living in or close to the poverty level.

Local exchange carrier - A carrier providing local service, may refer to either an ILEC or a CLEC.

Number pooling - The process of assigning telephone numbers to carriers in 1,000 number blocks rather than in the traditional 10,000 number blocks.

PIDs, Performance indicator definitions - The standards that Qwest must meet in order to provide acceptable service to its competitors. They primarily focus on the provision of UNEs and on the administrative systems the companies use to communicate information.

Price Cap - The 1995 State Act established an alternative form of regulation that replaced rate-of-return regulation. The price cap is the maximum price that can be charged for a telecommunications service under the 1995 Act.

Pricing flexibility - The 1995 State Act stopped rate-of-return regulation for Qwest (at the time US West) and put in place a price index and pricing flexibility system of regulation. When sufficient competition develops the 1995 State Act anticipates that market forces will provide sufficient price restraint, in the absence of such competition, a price index and/or cap is employed to provide a cap on prices.

Price Lists - CLECs, and ILECs where pricing flexibility has been approved, file price lists with the Commission instead of tariffs that list the terms and conditions for the services and products they offer. Price lists are not approved by the Commission, they are filed for public review, not Commission approval.

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Relay Utah - The service that provides telecommunications services for the Deaf and hard-of-hearing citizens in the State.

Tariffs - ILECs file tariffs with the Commission that list the terms and conditions of their service and product offerings. These are approved by the Commission if the terms and conditions are found to be just and reasonable.

Toll Resellers - Companies that provide long distance services, both intra and inter-state, but do not own physical facilities. They buy bulk capacity from existing long distance companies, and provide services over the original company's facilities.

TERLIC, Total element long-run incremental cost - The concept that the cost proxy models are based upon. TELRIC is the concept of determining what the minimum long-run cost an efficient carrier could provide telecommunications "elements" for and still cover all costs (including a normal profit).

UNEs, Unbundled network elements - The pieces of the network that are used to provide service. The 1995 State Act and the 1996 Federal Act require carriers to provide many of these to their competitors at TELRIC rates.

USF, USSF, Universal Service Fund(s) - There are two funds, the first is the Utah's Universal Service Support Fund (USSF), and the second is the federal Universal Service Fund (USF). Both are designed to offset the high cost of telecommunications service in certain areas by taxing all customers (in their jurisdictions) and transferring money to companies providing service in high cost areas.

Virtual collocation (see also collocation above) - A CLEC can virtually collocate by allowing the ILEC to physically install and then run and maintain its equipment. The CLEC can only remotely control what the equipment does, it can not go into the area. A more accurate term would be remote collocation, but the virtual collocation is the term that has evolved in the industry.