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## The State of the Telecommunications Industry in Utah

First Biannual Report to the Governor, Legislature, the Public Utilities and Technology Interim  
Committee, and the Information Technology Commission

by

The Public Service Commission of Utah

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(Subject to Amendment)

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**Biannual Report to the Governor, Legislature, the Public Utility and Technology Interim  
Committee, and the Information Technology Commission  
The State of Competition in Telecommunications in Utah**

**Introduction**

In 1995, the Utah State Legislature passed H.B. 364, the Telecommunications Reform Act ("1995 State Act" or "State Act") requiring the Public Service Commission of Utah to prepare a biannual report of the state of the telecommunications industry in Utah. Utah Code Section 54-8b-2.5 states:

Beginning October 15, 1998, and biannually thereafter, the commission shall submit a report to the governor, Legislature, the Public Utilities and Technology Interim Committee, and Information Technology Commission on the state of the telecommunications industry and make recommendations for any regulatory changes necessary to achieve the policy of the state as set forth in Section 54-8b-1.1. The commission shall determine criteria to be used to evaluate the performance of price regulation and the information necessary to conduct the evaluation.

In this first biannual report, we evaluate the extent to which competition has become meaningful for Utah telecommunications customers. For decades government-authorized monopolies were the sole providers of telecommunications service in Utah and throughout the United States. In exchange for their monopoly franchise, the companies were regulated by government on a rate-base, rate-of-return basis. Significant advancements in technology and a growing competitive interstate market opened the door for local telecommunications service competition.

In 1995, Utah rejected traditional regulation of telecommunications and allowed competitive entry in the local Utah market. Congress followed in 1996 by passing a comprehensive telecommunications reform bill ("1996 Federal Act" or "Federal Act") after a majority of states had taken action similar to Utah's. As a result, today, the intent and design of both federal and state public policy is to develop a competitive telecommunications industry so that ultimately, local prices can be kept in check by competition rather than by regulation.

In this report, we examine factors that enhance or inhibit telecommunications competition, and provide a history of the Commission's efforts to promote competition. The report has six sections. In the first section, we give a brief overview of the 1995 State Act and 1996 Federal Act and describe how they interact.

The second section presents the Commission's efforts to further competition in Utah and indicates some of the work that still must be completed. In the third section we survey the current state of competition in the telecommunications industry. We view this first report as a baseline from which to judge the direction and pace of change in telecommunications competition. We summarize data collected from telecommunications companies and describe the competitive activity in the state. We include in the section basic economic measures of competition and market concentration indices. Our information in this section shows that all local service competition is occurring along the

Wasatch Front. Despite promising competitive activity and interest, the Utah telecommunications industry is still dominated by a single firm.

The fourth section explains why the pace of competition has been slower than expected. The fifth section gives our best estimate of the areas and services in which competition may occur and speculates about future competition in Utah.

Our public policy recommendations to further the intent of the legislative policy declarations in Utah Code Section 54-8b-1.1 are presented in the sixth section. Our principal recommendation is that the three-year price freeze imposed by the 1995 State Act be eliminated, allowing the Act's price-cap regime to take effect as soon as the statutory price index can be established. For reasons described in sections three and four, we do not believe the freeze is achieving its purpose or serving the public interest. We also recommend consideration of certain customer protection legislation.

## Section 1

### The 1995 State Act and the 1996 Federal Act

The 1995 State Act authorized competitive entry into an incumbent telecommunications firm's service area.<sup>(1)</sup> It requires that telecommunications companies be able to interconnect with one another's networks and to have access to essential facilities and services to serve their customers. Access to essential facilities and services allows competitive companies entering the market to serve customers efficiently without having to duplicate all parts of the network. In return for making their systems accessible, the 1995 State Act allows incumbent providers to price their services flexibly once competition takes hold.

The State Act contemplated a final traditional rate case for U.S. West Communications, Inc. (USWC). The legislature encouraged the Commission to move prices further toward cost in that case to promote competition for all telecommunication services. In Docket No. 97-049-08 (USWC's last rate case) the Commission heard expert testimony on USWC's costs and prices, and on subsidies in rates. In that case, the Commission awarded USWC \$1 million of a \$70 million increase request. Based on evidence and pursuant to legislative intent to move prices toward cost, the Commission increased the single line residential rate \$2.80 per month (an annual increase of \$22 million), decreased the single line business rate \$1.88 per month (an annual decrease of \$4 million), cut long distance rates by \$10 million annually, reduced access rates (the service competing long distance companies buy from USWC to complete their service) by \$2.4 million annually, and reduced the call waiting rate about \$3 million annually.<sup>(2)</sup>

To protect customers and to begin the new statutory regime, the 1995 State Act froze USWC's service prices for three years following the December 4, 1997 issuance of the order in that rate case. USWC cannot raise the prices of existing services, but can voluntarily lower prices at any time. Following the freeze, the Commission must determine service prices using a "price-cap" formula consisting of industry-specific measures of inflation, estimated changes in productivity and other factors.

The 1996 Federal Act establishes three ways for local service competition to develop. First, a competitor firm (Competitive Local Exchange Carriers are often called "CLECs") will be able to resell the incumbent local exchange carrier's service under its own name. Second, a CLEC can purchase "unbundled network elements" (UNEs), which are elements or functions of the incumbent's network, and reassemble them, or combine them with their own facilities to provide finished services to customers. Third, a CLEC can build its own network and service systems, and interconnect them with the incumbent's system to complete the path to its customers without fully duplicating the incumbent's system. In addition, competitors have improvised a fourth method by purchasing high capacity lines from the incumbent and using them to complete local and long distance calls for customers.

To avail itself of these methods, a competitor must enter comprehensive interconnection and pricing agreements with the incumbent carrier. These extensive agreements cover all aspects of interaction and billing between the companies. Among other issues, service quality, access, pricing, reciprocal compensation arrangements, maintenance, and delivery of services must be addressed. The Commission has spent considerable time since the passage of the State and Federal Acts reviewing, arbitrating, and approving interconnection and pricing agreements.

The 1995 State and 1996 Federal Acts adopt somewhat different strategies for encouraging competition. As noted above, the 1995 State Act permits an incumbent to flexibly price its services once it has allowed other companies to interconnect with its network and competition takes hold. The 1996 Federal Act would permit Regional Bell Operating Companies (RBOCs) like USWC to provide interstate long distance service within their service territories if they completely open their local markets to competition. However, a checklist of 14 items, showing that the local service market is open to competition, must be completed by an RBOC before it is permitted to enter the long distance market. USWC has not completed the checklist for Utah, or for any other state in its 14-state service territory.<sup>(3)</sup>

## Section 2

### **Commission Efforts to Further Competition in Utah**

Since passage of the 1995 State Act, the Commission has been working to establish the framework for a competitive local service market to facilitate competition in the state. Our work to date falls in 12 categories, some of which are required by the 1996 Federal Act:

1. Establishing rules by which companies intending to provide local service are certified;
2. Processing local service certification requests;
3. Arbitrating and approving interconnection agreements;
4. Establishing discounts from USWC's retail prices for resale of service by competitive firms;
5. Estimating forward-looking economic costs and determining prices of unbundled network elements, non-recurring costs, and collocation;
6. Developing a new universal service fund consistent with state and federal requirements, including estimating the forward-looking economic costs of local basic service and establishing fund operating procedures;
7. Instituting carrier-to-carrier quality of service rules;
8. Monitoring instate toll (long distance) competition;
9. Requiring equal access 1+ dialing to further instate long distance competition;
10. Achieving local number portability (changing companies but keeping the same telephone number);
11. Drafting end-user quality of service rules;
12. Starting a Section 271 proceeding (local competition checklist for USWC to enter in-region interLATA service).

#### **Rules for Entry**

As soon as the 1995 State Act became effective, the Commission began establishing procedures under the Act by which competitors could be certificated to compete in the state. The effort was to obtain the information on applicants' qualifications needed to protect the public interest without unnecessarily burdening the industry. Ultimately, the Commission issued rules to make the process uniform.

#### **Certification**

The first certification proceeding took considerable time and consumed significant regulatory resources. There simply was no precedent for the action given the very recent change in public policy. The Commission issued the first certificate to compete on August 16, 1995. After two or three certification proceedings, the process became routine.

#### **Arbitration**

Although the 1995 State Act requires interconnection of incumbent and competitor facilities and access to essential facilities and services, the 1996 Federal Act institutes a proceeding for state commissions to arbitrate interconnection agreements when parties cannot agree on terms. Interconnection is contentious and parties leave significant issues for the Commission to decide. There are time requirements in the 1996 Federal Act which force the Commission to focus immediate attention on petitions for arbitration. We spent several months in late 1996 and early 1997 meeting with parties in technical conferences trying to mediate disputes. In cases where that failed, the Commission held arbitration hearings and issued final orders deciding the issues. Through mediation technical conferences and formal arbitration hearings, the Commission has approved local interconnection agreements between USWC and 10 competitors.<sup>(4)</sup> We have also approved four resale agreements with certificated competitors.<sup>(5)</sup>

The arbitration proceedings made clear the importance of, and the lack of, required cost data on which to base prices competitors should pay for interconnection. Out of necessity, we set prices on an interim basis in the interconnection agreements until we could review evidence, hold hearings, and determine final prices.

#### **Wholesale Discounts and Interconnection Costs and Prices**

We took up these cost issues in hearings beginning in 1996.<sup>(6)</sup> First, we established wholesale discount rates for the resale of USWC's services. Under the Federal Act we determined the costs USWC would avoid when its retail services are sold to competitors at wholesale. There was a tremendous discrepancy between the discounts USWC proposed and those the competitors proposed. The burden of that discrepancy fell on the Division of Public Utilities which developed its own study that served as the basis for the discounts we established. The discounts are: 14.5 percent on basic residence and business services, ISDN, central office features (call waiting, caller ID, etc.), and listing services; 22.2 percent on PBX and Centron/Centrex services; 11 percent on private line and advanced communications services; 13.4 percent on operator and directory assistance services; and, 17 percent on message toll service (instate long distance), optional calling plans, and 800 services.

The process became even more complicated as we moved to set rates for unbundled network elements competitors purchase from USWC and to establish the cost of basic service for universal service purposes. Heretofore the telecommunications network has been considered an integrated whole and customer rates for service have been based on the incumbent's historical, embedded costs. The 1995 State Act, the 1996 Federal Act, and the Federal Communications Commission's (FCC) rules changed the way costs are determined for telecommunications services. Instead of basing prices on the incumbent's embedded costs, both Acts contemplate the use of total service (or element) long-run incremental costs to set competitive prices. These costs are forward looking, economic costs of a hypothetical telecommunications network and are supposed to reflect a competitive market. They do not exist on a firm's books and can only be estimated. Cost proxy models are required to make the estimates.

To put the importance of correctly costing and pricing unbundled network elements in perspective, we would note that if prices are too low, that is, less than properly determined costs, USWC strenuously asserts that recovery of its huge investment in the telecommunications network may be jeopardized. On the other hand, if prices are too high -- greater than appropriate costs -- competitors just as vigorously argue that entry into the market will be unlikely, and the sale of unbundled network elements will not be the route to competition. On each side, incumbent or competitor, argument about what costs are proper reflects a deep self interest and makes the task extraordinarily difficult.

USWC sponsors the Benchmark Cost Proxy Model (BCPM) to develop costs for universal service and the Integrated Cost Model (ICM) to estimate unbundled network element costs. AT&T, supported by MCI, has filed the Hatfield Associates, Inc. (HAI) model for both purposes. The models are still under vigorous examination here and at the FCC. The Division of Public Utilities spent months analyzing these models in an attempt to independently verify them. That work continues.

The model estimates vary widely because they use different network designs, and require different assumptions and input data. The Commission has not been willing to rely on one model exclusively because of the results they produce. Because of the range in costs estimated by the models we blended their results in setting a \$20 price for an unbundled local loop.<sup>(7)</sup> That price was set in a Commission order issued April 8, 1998, but we will undoubtedly have to revisit it when the model results become more reliable. In fact, we just took additional evidence on the cost of an unbundled loop in September 1998.

We have also heard testimony on USWC's non-recurring network costs and the cost of collocation (placement by competitors of network equipment at the incumbent's central offices). Hearings are complete but decisions await analysis of late-filed information that we have required the parties to file. The objective is to have decisions before the end of the year.

### **Collocation**

The 1996 Federal Act requires incumbent firms such as USWC to allow competitors to place equipment (to "collocate") on their premises. This is a sensitive issue, particularly for incumbents, and can become highly adversarial. During the arbitration proceedings, we learned that a competitor's ability to compete is substantially lessened when there are impediments to collocation. The following are some of the issues that the Commission must resolve: allocation of floor space among competitors; the space an incumbent should retain for its own future purposes; whether an incumbent should be forced to relocate equipment to make space for a competitor; reasonable charges for construction, power, and space conditioning; reasonable time for construction; whether a competitor's equipment should be fenced off (caged) from the incumbent's; and security of facilities.

We have held both technical conferences and formal hearings to air party positions and to take evidence. Here again, however, the complexity of the cost issues, wide range of cost model results, and the intransigence of the parties force us to evaluate alternative bases for our decisions. We required, for example, that the parties file actual collocation construction costs they have incurred so far.

### **Universal Service**

Universal telephone service has been an important regulatory principle for decades. Utah established a telecommunications universal service fund in 1987 to promote access and affordability of telephone service throughout the state. Generally, as a result of support from the universal service fund, prices in rural Utah have been considerably lower than they otherwise would have been.

Both the 1995 State Act and 1996 Federal Act strongly maintain the universal service principle and both rely on statutory support mechanisms. In 1997 the Utah legislature amended the state universal service fund statute and required changes to the fund to be consistent with the significant change in public policy reflected by the 1995 State Act.<sup>(8)</sup> The Commission began rulemaking under the amendment as soon as it became effective.

<sup>(9)</sup>

The new explicit funding mechanism required by the amendment is in place and the former fund has been phased out. We have made provision for telecommunications companies to draw from the fund.

We have scheduled a hearing for November 23, 1998 to further refine the state's universal service support program and rules. Our intent is to select an appropriate cost model by which to estimate the forward-looking economic cost of local basic service. Because local service will be supported by both the federal universal service fund and the state fund, we will also have to consider the effects of the forthcoming FCC decision (not expected until next summer) on the structure and operation of the federal fund.

### **Quality of Service Rules**

Retail customers, and competitors who are dependent on the incumbent for resale of services, supply of unbundled network elements, collocation, and interconnection of network equipment, must be satisfied on issues of service quality. Service quality has always been a key concern of regulation, but it usually has been confined to services provided by the utility to its retail customers. Thus, we have initiated rulemaking to deal with service quality issues between competing telecommunications companies (Carrier-to-Carrier Quality of Service Rules).

After protracted technical conferences and internal Commission preparation, the Commission proposed a Carrier-to-Service Quality rule (R746-365) in April 1998. Comments from the parties diverged widely. USWC asked that most standards be set through party negotiation. Competitors asked for very specific rules governing all technical aspects of delivering services. USWC argues that its compliance with this proposal will cost millions of dollars. The comments provoked substantive changes in the draft rule. We have recently proposed changes to the rule which establish initial measurements to track USWC's actual performance. We have a second hearing on the rule scheduled October 23, 1998.

Although our emphasis has been on carrier rules to help facilitate competition, service quality for customers who subscribe to retail services (the "end users") are also necessary. Many customers contact the utility with installation, repair, billing, and other service quality problems. The transition to competition will not lessen these areas of concern (though effective competition might), and has already created new problems. Customers are being billed for services not rendered; improper charges appear on the bill because of the practice of billing for non-telecommunications services and for other companies (cramming); and charges appear on the bill when a customer's long-distance carrier is switched without authorization (slamming). These and others are problems that necessitate reexamination of service quality for retail customers.

### **IntraLATA Long Distance and Equal Access**

Customers have had a choice of instate long distance providers for more than a decade. USWC's share of the long distance market in Utah is approximately 56 percent and they recently petitioned the Commission to deregulate the service. We are scheduled to hear that case December 1, 1998.

By Commission rule, telecommunications companies proposed plans to implement intrastate equal access in their service territories. The Commission approved USWC's plan which made equal access available throughout its area July 1, 1998. The effect is that today, any instate long distance service provider can serve their customers using 1 + (Area Code) + Telephone Number in USWC territory. Code dialing to access a long distance carrier is no longer required. Other incumbents either have made, or are in the process of making this change as well. This action should help augment long distance competition in the state.

### **Local Number Portability**

Local number portability is a switched network capability that allows a customer to change telephone service providers, locations (in same rate area), or the type of service, without changing telephone numbers. The process is referred to as "porting" a number. Ubiquitous number portability depends on a regional network database, which recently was created, to store address information for ported numbers.

Competitors have designated several central offices where they plan to solicit customers. Accordingly, these were first in line for number portability modifications<sup>(10)</sup> and were activated with number porting capability October 12, 1998. Telephone numbers are now ported from USWC to competitors from those offices.

### **Section 271**

An incumbent must meet a 14-point checklist under Section 271 of the 1996 Federal Act showing that its local service market is open for competition before it can compete in the interstate long distance market in its own territory. Though the FCC makes the final determination of whether an incumbent has met the checklist, it must consult with the affected state before making the decision. Initially, USWC expressed interest in filing a 271 proceeding in Utah. In response, we established a procedure for addressing the petition. Recently, USWC informed the Commission that it will not file in 1998.

The past three years at the Commission have been very active, challenging, and difficult. There is still significant work ahead but we have seen some progress which we describe in Section 3. The progress has been slower than expected, the reasons for which we elucidate in Section 4.



### Section 3

#### The Current State of Telecommunications Competition

Three market areas in which telecommunications competition can take place are local services, intraLATA (instate) long distance, and interLATA (state to state) long distance.

Two types of competition are possible in the local service market and to some extent already exist. The first is competition from a substitute product. The second type of competition, structured under the State and Federal Acts, is of the same type and technology, and occurs through resale by a CLEC of an incumbent's services, purchase of an incumbent's unbundled network elements, and interconnection of physical facilities.

#### Utah's Local Service Market is Not Yet Competitive

A substitute product is one that performs a service sufficiently like the original product as to be mostly interchangeable. The primary example today is wireless communication in the form of analog and digital cellular phone service. It is an imperfect substitute for traditional wireline service. Traditional wireline local service is usually billed at a monthly flat rate, while wireless tends to be billed at measured rates (a charge for each call). Second, wireless by its nature can be mobile, while wireline is not. And third, the quality and capacity of the transmission signal differs. Modems cannot be used with great success on analog wireless phones, though wireless digital phones show promise in this area. So while wireless service is an option, most customers do not consider it a direct competitor to traditional wireline service. As a result, most customers who use wireless phones also have traditional wireline telephone service.

Competition that requires interconnection, purchase of unbundled network elements, or resale of an incumbent's services is just now developing in Utah. While the Commission has granted certificates to 26 CLECs, seven report providing local service, all in USWC territory. NextLink, Electric Lightwave (ELI), MCI/WorldCom (formerly Brooks Fiber), and AT&T Local (formerly TCG), serve customers through a combination of their own facilities and unbundled network elements. Reconex, Citizens, and Tel-Link of Utah serve customers by reselling USWC's services.<sup>(11)</sup> MCI/WorldCom serves some of its customers through resale as well. Of the 26 certificated companies, 10 have interconnection agreements. The competitors reselling USWC's services have resale agreements. Comm South also has a resale agreement, but based on our information, has not yet begun providing service. In total, therefore, 14 competing companies have agreements with USWC.

Companies that are providing local service today are dealing largely with business customers. Competitive resale companies have entered the residential customer market on a very limited basis. As of May 1998, USWC served 1,072,051 local access lines (See Table 2 below). By the end of Summer 1998, seven competitors served approximately 18,000 local access lines, all in USWC's service territory (See Table 4 below). Most of the competitors' lines are in the Salt Lake City Metropolitan Area; relatively few lines are outside Salt Lake County in Weber, Davis, and Utah Counties. One of the principal means employed to serve these lines is either interconnection of physical facilities or routing customer calls over high-capacity lines controlled by the competitor. USWC reports that competitors have purchased 1,053 unbundled loops to provide local service to some of their business customers. In addition, competitive resellers are serving 3,091<sup>(12)</sup> customers by reselling services acquired at wholesale from USWC. Competitors have collocated<sup>(13)</sup> their equipment in 13 of USWC's central offices to serve customers.<sup>(14)</sup>

Despite the fact that there are 26 certificated local service competitors, and 14 incumbent local exchange carriers other than USWC which serve 52,500 lines (See Table 5), USWC still controls 95.4 percent of all the lines in Utah. We therefore classify it a dominant carrier. Price is the primary difference between the service offered by USWC and the competitors, though service quality and responsiveness to customers may play a role in customers' decisions. Table 1 presents information on incumbents and competitors by county. Resellers are included in the table where we believe they are serving, but out information is incomplete.

Table 1. Local Telecommunication Companies in Utah - Local Service

County	Incumbent Wireline Providers	Companies Providing Service		Competitors Present	
		Competitive Providers	Business	Residential	
Beaver	USWC, South Central Utah		No	No	
Box Elder	Beehive, Citizens, USWC, Albion		No	No	
Cache	USWC, Central Utah		No	No	
Carbon	USWC, Central Utah		No	No	

<b>Daggett</b>	Union		No	No
<b>Davis</b>	USWC	NextLink, ELI MCI/WorldCom, Resellers	Yes	No
<b>Duchesne</b>	Uintah Basin, USWC		No	No
<b>Emery</b>	Emery		No	No
<b>Garfield</b>	South Central Utah, Citizens, Beehive		No	No
<b>Grand</b>	Citizens, Emery, Uintah Basin		No	No
<b>Iron</b>	USWC, South Central Utah, Beehive		No	No
<b>Juab</b>	USWC, Beehive, Central Utah, Citizens Comm.		No	No
<b>Kane</b>	South Central Utah, USWC, Beehive, Citizens		No	No
<b>Millard</b>	Citizens, Beehive		No	No
<b>Morgan</b>	USWC		No	No
<b>Piute</b>	South Central Utah		No	No
<b>Rich</b>	All West Comm., Central Utah, USWC		No	No
<b>Salt Lake</b>	USWC	NextLink, ELI, MCI/WorldCom, AT&T Local, Resellers	Yes	No
<b>San Juan</b>	Citizens, Navajo Comm., Century		No	No
<b>San Pete</b>	USWC, Central Utah, Emery, Manti, Gunnison		No	No
<b>Sevier</b>	USWC, South Central Utah		No	No
<b>Summit</b>	Union Tel, All West Comm., USWC		No	No
<b>Tooele</b>	USWC, Beehive		No	No
<b>Uintah</b>	Uintah Basin, USWC		No	No
<b>Utah</b>	USWC, Central Utah	NextLink, ELI, MCI/WorldCom, Resellers	Yes	No
<b>Wasatch</b>	USWC, Uintah Basin, All West Comm., Central Utah Tel.		No	No
<b>Washington</b>	USWC, South Central Utah, Beehive		No	No
<b>Wayne</b>	South Central Utah, USWC, Beehive, Citizens		No	No
<b>Weber</b>	USWC	NextLink, ELI, MCI/WorldCom, Resellers	Yes	No

Table 2. USWC

Number of Local Access Lines Served (As of May 1998)	1,072,051
Residential (Estimated using 1997 Percentages)	717,202
Business (Estimated using 1997 Percentages)	344,128
Other (Estimated using 1997 Percentages)	10,721
Annual 1998 Utah Revenue (Estimated based on First and Second Quarter)	\$160,737,415
Excess Return on Equity (Above Authorized Rate of Return of 11.5%)	5.5%
Excess Collected from Customers, Estimated 1998	\$29,000,000
(Annualized Based on First and Second Quarters 1998)	

Table 3. Other Incumbent Local Exchange Carriers

Number of Local Access Lines Served	52,478
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Residential	37,220
Business	13,119
Other	2,139
Utah Operating Revenue (1997)	\$54,889,447
Utah Basic Local Service Revenue (1997)	\$9,522,682

Table 4. Competitive Providers of Local Service

Approximate Number of Local Access Lines Served (As of Aug./Sept. 1998)	18,000
Residential	Some resold
Business	17,800- 18000
Other	0
Utah 1997 Fiscal Year Revenue (See below for detail)	\$29,696,038

Table 5. Competitive Local Exchange Carriers' Intrastate Revenue, Fiscal Year 1997

Category of Revenue	Total
Residential Local Exchange	\$0
Business Local Exchange	\$3,686,570
Vertical Services	\$258,565
Private Line and Special Access	
Local	\$2,959,203
Interexchange	\$1,205,511
Network Interexchange	
Switched Access	\$760,345
Toll	\$20,385,435
Other	\$440,409
Total	\$29,696,038

Since 1996, the total number of access lines in USWC's Utah service territory has increased by approximately 150,000 to about 1,090,000. Competitive Local Exchange Carriers have been able to acquire about 18,000 lines, while the number served by USWC has increased by about 132,000 lines. During the same period, USWC revenues and earnings have grown substantially. We estimate that during 1998 alone USWC will earn more than \$29,000,000 above the rate of return on rate base we authorized in Docket No. 97-049-08 (Report and Order issued December 4, 1997). That is the reason for our recommendation in Section 5 to eliminate the freeze. Although USWC is authorized to voluntarily reduce prices during the freeze, there have been no reductions. The facts suggest that USWC faces little effective competition.

There have been competitive alternatives for intraLATA long distance for many years. The Utah legislature deregulated resellers of USWC long distance service in 1985. The Federal Communications Commission (FCC) has jurisdiction over interLATA long distance service. Since the 1984 divestiture of AT&T there have been competitive alternatives in the interLATA market. Customers can choose a service provider in either market. Utah policy only affects the intraLATA market, where competitive carriers are increasing market share. USWC's share of this market is currently near 56 percent. In a case now under investigation, USWC has petitioned the Commission for a determination that

Utah's intraLATA toll market is competitive and therefore should be deregulated.

Under federal policies, USWC can offer interstate long-distance service outside its service territory. Like other RBOCs, it has not devoted significant resources to offer such service. In addition, once USWC meets Section 271 requirements to open its local-service market to competition, it will be able to offer interstate long-distance service in its 14-state service territory. USWC can acquire long-distance customers within its own service territory at lower cost than would be required to acquire customers outside its territory. Outside its territory, it would be just as costly for USWC to serve customers as for any other new carrier. RBOCs like USWC are therefore spending resources to defend local market share with an eye toward reaping future economic benefits from providing "in-region" long-distance service.

Although it is evident from the facts we present that local service competition is not effective, there are objective economic measurements that can be used to test the competitiveness of markets. While it may not be necessary in this instance, they may provide useful measurements in future evaluations of Utah telecommunications markets. For this reason we introduce examples here. One such economic measure is the Herfindahl Index. We constructed the index for the Utah local service market. To calculate the index, each firm's market share is squared and the results for all firms are summed. The value of the index is one if a single firm serves the entire market (monopoly) and moves toward zero (full competition) as competition increases. The index for all local service in USWC's Utah service territory is .97. If the calculation is done for just local business service where the competitive activity is occurring, the result is .91, far from a fully competitive market outcome. Given the status of competition in the residential service market, the index produces a value of .99. In the service territories of the remaining Utah incumbents, the index is one because competition does not yet exist.

A companion measure is the Effective Firm Index (the inverse of the Herfindahl Index) which indicates the number of effective firms in the market. It is 1.03, meaning only 3/100 of an effective competitor is present, in USWC's territory. If the business sector is evaluated in isolation, the effective firm index equals 1.1, indicating that even where competition is the strongest, the effect is equivalent to one tenth of a competitor. Seven competitors are currently selling local service there. For competition to be effective, the seven competitors would have to have about 31 percent of the market, or approximately 337,000 lines in USWC's territory. Until competition is effective, market forces will not protect consumers from the market power of the dominant firm. The combined market presence of all competitors taken together must be at least as strong as one theoretically effective firm before considering whether public policy should be changed to permit the replacement of price regulation with market-based pricing.

Based on the foregoing facts we must conclude that competition in the Utah local service market is not effective. The market is still controlled by a single firm. Competitors serve fewer than 1.7 percent of all lines. These are virtually all business lines with the exception of some resold service to a limited number of residential customers. Competitors serve about 5 percent of the business lines in USWC's service area. The current circumstances require regulation to enforce rules of conduct, to interpret law, determine unbundled network costs, and to rule on implementation. It is unlikely that competition will develop or remain viable without this regulatory role.

## **Section 4**

### **Reasons for Slower-Than-Expected Movement To Competition**

In Utah and around the nation, movement toward competition has been much slower than envisioned by the 1995 State and 1996 Federal Acts. Some of the reasons for the slow movement are evident in Section 2 and 3, but the most prominent reasons appear to be:

1. Unrealistic expectations at the time both the State and Federal Acts passed;
2. The development of new, untried, forward-looking cost models required by the change in public policy as the basis for interconnection prices.
3. The interest of incumbents to protect current and future market share;
4. The effort of potential competitors to acquire the most favorable interconnection terms;

5. Litigation between incumbents and potential competitors rather than effective negotiation;
6. The strategy of competitors to serve only the high-volume, low-cost, customers; and
7. The inability of competitors to complete the network infrastructure required to serve the market.

When the legislature passed the 1995 State Act and Congress followed with the 1996 Federal Act, many believed that telecommunications competition would follow immediately. Few anticipated the complexity of determining incumbents' costs fairly on a total service long-run incremental cost basis and then unbundling the integrated network for competitors' use. That process continues to be perplexing because cost model development appears to be based on the respective parties' positions, incumbents' model results being high, and competitors' model results being low.

Natural incentives of the parties have also been an impediment to full-fledged competition. The situation is one in which incumbent firms seek the advantages of pricing flexibility and the revenues associated with offering long distance service, but are reluctant to give up their regulated monopoly advantages. On the other hand, potential competitors want economic concessions from incumbent local providers like USWC before committing to provide local service to a broad range of customers. It is a conflict of business strategies. Beyond this, there are incentives for both the large competitors and the incumbents to delay parts of the process. Through delay, USWC retains local market share, while by delay, potential competitors keep USWC out of the lucrative interstate long distance market and prevent it from offering competitively desirable one-stop-shopping to its customers.

This, and the tremendous amount of money at stake, helps explain the large amount of litigation that has occurred since passage of the two Acts. Clearing impasses has often required a Commission order which, in turn, the parties appeal. Parties have appealed our orders to the Utah State Supreme Court and to the Federal District Court for the District of Utah. Likewise, several of the FCC's most significant actions are on appeal to Federal Circuit Courts of Appeal and to the United States Supreme Court. Some parties, particularly incumbents, have adopted a litigation strategy. They are challenging the new competitive regime for which there is no legal precedent. Once the litigation clears and new rules are established and tested, movement toward competition may accelerate. Given the noted technical difficulties and conflicting economic incentives, however, it will take more time before competition in local service markets is effective and vibrant.

When competitors entered Utah they informed the Commission in the certification hearings that they intended to begin serving just the local business market. Service to the residential market would come at an undefined time in the future. Today there is virtually no residential local service competition in Utah.

In entering the Utah local service market it has taken time for competitors to build their facilities and begin operating. In addition, competitors have not been able to get the services or gain access to the facilities they need from USWC. The USWC network was constructed by one provider to serve all customers. The change in public policy has created new and different demands that have required that the network be altered and augmented. When USWC has not had the necessary facilities for competitors, competitors have elected to build their own. While that has increased the capacity of the overall network in Utah, competitors argue that it has also slowed competition because it takes time to construct the facilities. The resources required to have full "facilities-based" (each competitor providing local service using its own plant and equipment) competition would be staggering and wasteful. For this reason, the 1996 Federal and 1995 State Acts envision that only portions of the network would be duplicated, and the unduplicated portions are to be sold at reasonable, cost-based prices to all competitors.

Although there has been significant interest shown in Utah's urban business markets and there has been promising entry, progress toward effectively competitive markets has been slow and arduous. We believe that once the forward-looking economic cost models are reliable and in place, and there is legal precedent for the new competitive regime, the pace of competition may quicken. We do not believe that, as a general rule, new state or federal legislation can circumvent the impediments we have encountered. Except where there are clear, unintended, damaging consequences under the existing law, new legislation only seems to invite new litigation and additional roadblocks.

## Section 5

## **Competition in the Near Future in Utah**

In the near term, competitors can be expected to continue to target large business customers along the Wasatch Front, much as they are currently doing. Competition will move more slowly to a broader range of customers in the state. Even though progress to competition has been slower than anticipated, even among urban business customers, there are certain facts today that could expedite the pace. For example, competitors have built significant fiber optic facilities stretching from Ogden to Provo with the highest concentration in Salt Lake County. Their investment indicates a strong commitment to do business in the state. In addition, from the 13 central offices where competitors have collocated already, potentially they can reach 238,000, or just under 70 percent, of USWC's business lines. We do not know the competitors' strategies, timing, or capital deployment plans, but we are aware of several requests they have made to augment their facilities in ten of USWC's central offices to expand their service capacity. That will likely result in more business customers being able to choose a provider other than the incumbent.

Until technology advances or the cost of providing service decreases, competitors are unlikely to serve many residential or rural customers in Utah in the near future. Of course, competition may develop by alternate means of providing local service - the Internet, cable TV, or wireless systems. Much technical work on these must be completed first, and the investments to carry them through are significant, but some companies are making the effort. For example, one known development is the AT&T purchase of TCI Cablevision. Clearly, that purchase indicates AT&T's strategy and commitment to enter the local service market. TCI is a major provider of cable television in Utah. It is within reach of the vast majority of Utah's homes and businesses, and, therefore, could become a near-ubiquitous alternative to incumbent service in the state. The biggest hurdle it faces, however, is the tremendous investment required to convert the cable system to a two-way system. In press reports AT&T has acknowledged that it will take at least four to five years to make that conversion so the TCI purchase will not alter the market overnight. Nevertheless, it is a potentially positive development for the state of Utah.

### **Section 6**

#### **Policy Recommendations**

In the 1995 State Act the legislature asked the Commission ". . . to make recommendations for any regulatory changes necessary to achieve the policy of the state as set forth in Section 54-8b-1.1." That section makes 10 declarations indicating that it is state policy to:

- (1) endeavor to achieve the universal service objectives of the state as set forth in Section 54-8b-11;
- (2) facilitate access to high quality, affordable public telecommunications services to all residents and businesses in the state;
- (3) encourage the development of competition as a means of providing wider customer choices for public telecommunications services throughout the state;
- (4) allow flexible and reduced regulation for telecommunications corporations and public telecommunications services as competition develops;
- (5) facilitate and promote the efficient development and deployment of an advanced telecommunications infrastructure, including networks with nondiscriminatory prices, terms, and conditions of interconnection;
- (6) encourage competition by facilitating the sale of essential telecommunications facilities and services on a reasonably unbundled basis;
- (7) seek to prevent prices for tariffed public telecommunications services or price-regulated services from subsidizing the competitive activities of regulated telecommunications corporations;
- (8) encourage new technologies and modify regulatory policy to allow greater competition in the telecommunications industry;

(9) enhance the general welfare and encourage the growth of the economy of the state through increased competition in the telecommunications industry; and

(10) endeavor to protect customers who do not have competitive choice.

Our work to implement the ten policies is presented in Section 2. The principal recommendation of this report in furtherance of those policies is to end the price freeze established in the 1995 State Act and move to the statutory price-cap regime as soon as the Commission can develop the appropriate price indices.

Were USWC still regulated on a cost-of-service basis, our calculation shows that they will overearn by \$29 million in 1998 (an annualized amount, based on the first six months of 1998), the first year of the freeze. The freeze was intended by the 1995 State Act to protect USWC's customers from paying more than a reasonable amount for phone service during the transition from regulation to competition. Overearnings lead us to conclude that the public interest is not well served by the freeze and, despite promising competitive activity in the state, Utah's local service market remains dominated by one firm. At the very least, the price freeze should end if USWC's overearnings persist.

Even after the policy change in 1995, the earnings measurement remains an important gauge in determining if the local market is competitive. Overearnings suggest a current ineffectiveness of the market restraint that competition is expected to impose. Competitors should keep those earnings in check, yet, despite competitive entry and presence, USWC's overearnings persist. Because USWC faces different financial incentives under price-freeze and price-cap regimes than it does under rate-of-return regulation, we conclude that overearnings may continue to be a problem. Since we do not expect the local market to be effectively competitive in the near term, we see the early elimination of the freeze and implementing the price-cap indices as the only option left under the terms of the statute to protect customers during the transition to competition.

Our second recommendation addresses customer protection provisions that we believe are necessary. We noted the growing problem of unauthorized changing of customers' long distance providers and adding charges to customer bills for services not provided. We have issued a rule prohibiting those actions on an intrastate basis, but more is likely needed.

1. U.S. West Communications, Inc. is the largest incumbent in Utah. There are 14 other incumbent telephone providers serving throughout the state. See Table 1 for a list of all incumbents.

2. USWC appealed five issues from that case to the Utah Supreme Court: 1) Yellow Page Imputation;

2) Reengineering Costs; 3) Exclusion of Pension Asset from the Rate Base; 4) 1996 Income Tax True Up; 5) Rural Exchange Sales Depreciation. The appeal is still at pending at the Court.

3. No RBOC in the country has met the criteria of the federal 14-point checklist.

4. AT&T, Brooks Fiber (now MCI/WorldCom), Convergent Communications, Inc., Electric Lightwave, Inc., Frontier Local Services, GST Lightwave, Inc., MCI Metro, Nextlink Utah, Inc., Sprint Telecom Co., and TCG (now AT&T Local). The Commission has also approved agreements between wireless providers which do not hold certificates and USWC, Citizens, and Beehive. USWC appealed three of the arbitration orders to the Federal District Court for the District of Utah where they are still pending.

5. Those companies are Comm South Companies, Reconex, Tel Link, and U.S. Telco.

6. Docket No. 94-999-01.

7. The local loop is the wireline connection between a subscriber and the central office where the switching function takes place. Local loop investment is a significant proportion of the public switched network. Local loops are therefore perhaps the most important of the unbundled network elements a competitor will have to obtain from the incumbent in order to serve customers. Initially, the HAI model set a \$13 cost for the local loop while the ICM model loop cost is \$28. As a result, the Commission has not adopted either one.

8. See Utah Code Section 54-8b-15.

9. A one percent surcharge is imposed on all intrastate telecommunications services.

10. Bountiful, Clearfield, Cottonwood, Draper, Holladay, Kearns, Magna, Midvale, Murray, Ogden Main, Orem, Provo, Salt Lake Main, Salt Lake South, Salt Lake West, and Salt Lake East.

11. Initially when the 1996 Federal Act passed, several national competitors intended to pursue a resale strategy to enter the local market. After state commissions established the required wholesale discounts, most of the competitors considering resale changed strategies. After adding their own costs to the rate they paid the incumbent, resale was not profitable. One of the main ways resale is being used now is to charge more to customers who have poor credit.

12. This was the number at the end of August 1998. It was up from 2,438 in July.

13. Collocation is explained in Section 2 of this report.

14. Within these 13 offices competitors have constructed a total of 30 collocation bays. The 13 offices are: Salt Main, Salt Lake East, Salt Lake South, Salt Lake West, Murray, Midvale, Holladay, Kearns, Provo, Orem, Kaysville, Clearfield, and Ogden Main.

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