

# Appendix I:

Data Assembly Methodology  
for Statistics Cited in Initial Report

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**APPENDIX I: DATA ASSEMBLY METHODOLOGY FOR STATISTICS CITED  
IN INITIAL REPORT**

In this Appendix I describe in detail the methodology followed to prepare the following figures: 1) The 87.2% figure that represents the alternative facilities revenue addressability figure (see pp. 2, 28, and 29 of my initial Report); 2) The 94.2% figure representing the MCI WorldCom/AT&T alternative facilities special access LDC addressability (see pp. 2, 28, and 29 of my initial Report); 3) The 69.1% figure that represents the collocation addressability of minutes of use in LATA 358 (see pp. 2, 27, and 29 of my initial Report); 4) The 86.7% figure representing the collocation addressability of minutes of use in the city of Chicago (see p. 27 of my initial Report); 5) The 62.9% figure that represents the collocation addressability of minutes of use in the Chicago suburbs (see p. 27 of my initial Report); and 6) The 94.9% figure representing the ratio of revenues within the MSA to total revenues within LATA 358 (see p. 2, footnote 3 of my initial Report). These figures are referred to as figures 1, 2, 3, 4, 5 and 6, respectively.

The first step in preparing the data was to compile an accurate and exhaustive list of Common Language Location Identification (“CLLI”) codes that represents all of the wire centers present in LATA 358. This list of CLLIs was assembled using data from Ameritech.

The codes present in this master list were then mated to a revenue file that contains revenue data for DS1, DS3, dedicated SONET, point-to-point SONET, express SONET and express point-to-point SONET. The revenues data are organized primarily by CLLI code, which identifies a particular switch. Each CLLI is associated with revenues data for the various high-capacity products. The revenues were compiled by matching CLLIs in the revenues file to CLLIs in the aforementioned master list (which was assembled in the first step). Special access local distribution channel (LDC) counts were also matched to the appropriate CLLI in a similar manner.

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This CLLI list, with corresponding revenues and LDC data for each CLLI code was the basis for those figures describing revenues or LDCs present in wire centers with competitive fiber (namely, figures 1 and 2) and the figure that indicates the ratio of revenues present in the MSA to those present in the entire LATA (figure 6).

Revenues and LDCs present in wire centers with competitive fiber were calculated by using the data compiled in the master list and incorporating the information in Quality Strategies' fiber route maps. The first step in this process was to determine which wire centers actually contained competitive fiber. This was done by analyzing a map, prepared by Quality Strategies, Inc., which indicated those wire centers that contained alternative facilities. The revenues and LDCs present in these wire centers (as calculated in the master list) were then summed together and compared with the corresponding totals present in LATA 358 (again, as calculated in the master list).

To calculate figure 6, the ratio of revenues present in the Chicago MSA to revenues present in LATA 358 was calculated by determining those wire centers that fell inside the MSA. This was accomplished using data provided by Ameritech. Once the MSA distinction was made, the revenues for wire centers within the MSA were summed together and compared with the total revenues present in LATA 358.

Those figures involving collocation addressability (figures 3, 4, and 5) were also calculated using CLLI codes, and the data processing procedures are similar to those outlined in the preceding discussion.

The first step in processing the data involved merging a complete list of wire center CLLIs present in LATA 358 with corresponding Ameritech minutes of use data.<sup>77</sup> To calculate figures involving collocation, the total number of minutes of use present in wire centers that were identified as being collocated were summed together and compared with the corresponding overall total minutes of use for the entire LATA.

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In those collocation addressability figures (figures 4 and 5) where a city vs. suburbs delineation is made, the data are compiled by first determining those wire centers present in the MSA. The data is then subdivided into those wire centers that fall within the Chicago city limits and those that do not. The former represents the "city of Chicago" while the latter (wire centers within the MSA but outside of the city limits) represents the suburbs. To calculate figures 4 and 5, the revenues present in collocated wire centers in the appropriate market (either the city of Chicago or the suburbs) were summed together and the appropriate total was compared to the overall total revenues for the relevant market (again, either the city of Chicago or the suburbs).

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<sup>77</sup> Revenues data used in this calculation are the same as those previously employed in the preceding discussion.

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## Appendix II:

### CAP Expansion Model

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## **APPENDIX II: DESCRIPTION OF LECG CAP EXPANSION MODEL**

### **I. INTRODUCTION AND PURPOSE**

The list of competitive providers of high-capacity services in the Chicago LATA include the most established and experienced competitive access providers (CAPs) in the industry – MFS and TCG. The extensive fiber networks of these CAPs place them in an advantageous position to extend facilities-based high capacity service to the majority of the high capacity customer locations in the Chicago LATA. MFS and TCG were acquired by two of the largest purchasers of high-capacity services, MCI WorldCom and AT&T. Smaller wireline players are targeting small and medium-size business customers or select geographic markets, and alternative competitors are using (and developing) advanced wireless and IP-based networks. Due to data limitations, the LECG CAP Expansion Model (LCEM) focuses on TCG's and MFS' fiber network for the build-out calculations. The LCEM is designed to assess the financial attractiveness, from the perspective of Ameritech's competitors, of extending their CAP networks to provide high capacity services over their own facilities to locations that are currently served with Ameritech's facilities. The two leading competitors, MCI WorldCom and AT&T are currently leasing facilities from Ameritech to serve many of the customers at these locations.

### **II. METHODOLOGY**

#### **A. COSTS THAT ARE INCREMENTAL IN THE BUILD V. LEASE DECISION**

The LCEM is designed to examine the build versus lease decisions of Ameritech's competitors for high capacity customers in the Chicago LATA. In the model, the build or lease decision is determined by comparing the present values of the costs for serving customer locations. For the build versus lease decision there is little or no difference in expected retail costs; the retail costs are incurred in either case. For the build option, therefore, the LCEM focuses on the costs incurred when a competitor

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builds, operates, and maintains facilities that it extends from its existing CAP network to high capacity service customer locations that are currently served by Ameritech's facilities. The present values of the costs of extending, operating, and maintaining facilities are compared with the present values of the cost of leasing facilities from Ameritech. The model analyzes the extent to which, given Ameritech's current and expected prices for facilities, competitors have viable business opportunities to build, operate and maintain facilities, when the alternative is to lease facilities from Ameritech. The model uses the distance from each customer's location to the nearest CAP fiber route, the level of demand at the location, and expected growth to determine the type and cost of the facilities required to provide service. For customer locations where LCEM determines that the present value of the costs related to extending facilities is less than the present values of the costs of leasing these facilities from Ameritech, the model indicates that the competitor is not dependent upon Ameritech's facilities to provide service to that location.

The LCEM is an Excel spreadsheet model that allows for the assessment of scenarios on a number of key inputs, including price trajectories, maintenance factors, demand growth, and the cost of capital.

#### **B. ANALYSIS OF DS1s AND DS3s**

The LCEM focuses on the build versus lease decision for DS1s and DS3s. Results from the LCEM indicate that it is not necessary to provide a detailed analysis of the build versus lease decision for locations with circuits that exceed the capacity of DS3s, such as optical circuits (OCs). For all of these locations it is clear that the build option is financially superior to leasing facilities from Ameritech. The results of the LCEM demonstrate that the attractiveness of the build option increases with increases in revenue from customer locations. For locations with multiple DS3s, for example, the build option clearly dominates. The decision to lease is driven primarily by the cost of installing fiber, which is much the same for locations with small amounts of high capacity revenue as it is for locations with much greater revenue. For high revenue locations, the relative cost of the fiber decreases and attractiveness of the build option increases. It is, therefore, not

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necessary to perform a detailed analysis of locations with higher capacity and revenues than are associated with DS3 circuits.

### **C. CASH FLOW ANALYSIS**

LCEM estimates CAP cash flows related to the build versus lease decision for high capacity services. The revenue that Ameritech receives today from providing high capacity service on its facilities represents the costs that a CAP can avoid by installing its own facilities. Whether the competitor builds or leases facilities, it incurs costs for retailing and customer care. The relevant cash flows for the build option are:

- capital expenditures for fiber routes and DLC equipment;
- operations, administration and maintenance of the new facilities in their network;
- payment of the term agreement liabilities, if appropriate; and
- the tax shields created by depreciation of the new assets and OA&M expenses.

When the CAP installs its own facilities, it begins avoiding lease payments to Ameritech. The model estimates these cash flows, after taxes. The model indicates that a CAP could build facilities if the present value of the costs associated with building facilities is less than the present value of costs associated with leasing facilities from Ameritech.

## **III. INPUTS AND ASSUMPTIONS**

The model was designed to test the hypothesis claimed by competitors that the investments required to build, operate, and maintain facilities to existing Ameritech customer locations are prohibitive. Assumptions and inputs were selected so that this hypothesis would not be rejected without good cause.

### **A. NO EXTENSIONS OF CAP FIBER BACKBONES**

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Perhaps the most conservative assumption in the LCEM is that the CAPs will not extend their fiber backbone networks into areas where there are clusters of customer locations. This means that every customer is served by an individual fiber spur that extends from existing CAP fiber. Even if there are numerous customer locations clustered several miles from the nearest existing CAP fiber route, the LCEM forces the CAPs in the model to bear the cost of extending a separate fiber route to each location. An examination of the customer location data indicates that clusters of customer locations are the norm. The customer locations map included in the main body of the affidavit shows that most of Ameritech's customer locations are clustered in close proximity with other customer locations. This clustering of locations makes it possible for a CAP to provide service to multiple locations with a single spur and thus share the cost of placing fiber. Charts 6 and 7 in the affidavit demonstrate that sharing the costs of fiber routes among clustered locations would turn the financial viability of the build option positive for many more locations.

## **B. INPUTS**

### **DLC Planning Horizon**

Digital loop carrier (DLC) facilities are sized in the LCEM to accommodate growth over the productive life of the DLC unit, as indicated by the depreciation life for DLC equipment. For example, the model sizes DLC equipment so that there is enough capacity for the entire productive life of the system, assuming that the CAP will realize expected growth rates and shares of demand. With its default growth rates, the model places an OC-3 system in all locations with only 1-2 DS1s to plan for future growth. These systems cost approximately \$40,000 to purchase and install. By comparison, a Quad system can provide four channels of capacity for around \$5,500. A more cautious approach of making the initial builds to low demand locations with four DS1 size Quad systems and replacing these with an OC-3 system would reduce the present value of the costs for serving these locations.

## Equipment Costs

The model uses the DLC equipment costs from the PEI study filed with the Phoenix forbearance filing made by U S WEST. LECG worked with Ameritech to confirm that PEI equipment cost profiles are reasonable.

## Fiber and Placement Costs

The model contains input values for the cost of placing fiber from CAP networks to customer locations for each of the nine distance bands used in the model. The model assumes that the CAPs place 24 strand fibers to each location. The tables below shows the default values used in the LCEM. Total fiber route costs increase moving down the table from the shorter to the longer distance bands. Costs per foot, however, decrease moving down the table, reflecting the movement from dense urban areas, where it is very costly to place fiber, to less dense areas outside of the urban centers, where it is possible to use less expensive placement techniques.

**Table 1**  
**Fiber Route Costs**  
**Used In The LCEM**

Distance Band	Range (Feet)	Average Route (Feet)	LCEM Costs
1	0	0	\$0
2	1-100	35	\$1,176
3	100-500	399	\$13,370
4	500-1,000	933	\$31,269
5	1,000-2,000	1,867	\$43,870
6	2,000-4,000	3,809	\$51,422
7	4,000-9,000	7,810	\$58,578
8	9,000-15,000	15,211	\$98,873
9	15,000+	86,813	\$564,283

For each distance band, the air miles distance was calculated. A factor of 1.3 was applied to this distance to estimate an average route distance. Estimates of the placement costs were multiplied by estimated route distances to estimate the total placement costs.

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## Growth

There are separate inputs in the LCEM for DS1 and DS3 growth. The default inputs are initial growth rates of 30 percent for DS1s and 15 percent for DS3s, with these rates tapering toward 8 percent beginning in year 6 of the cash flow analysis. These inputs were derived from the growth rates that Ameritech experienced over the last three years and the percent of the growth that occurred at existing locations in 1998. Adjusting overall growth rates downward for growth at existing locations is appropriate because the LCEM only examines the build versus lease decision for existing locations of high capacity service customers on Ameritech's network.<sup>78</sup>

## COC

The model uses a weighted average cost of capital to determine the present values of future cash flows. The default cost of capital used in the LCEM is 11.25 percent, which is the authorized interstate rate of return on interstate services.<sup>79</sup>

## Depreciation

The model contains inputs for reporting and tax depreciation of fiber and DLC equipment. The model uses reporting life to determine when to retire plant, at which time the model includes capital expenditures to replace the retired plant. The cost of replacement facilities is determined by the years until replacement occurs, the expected gain in plant productivity each year (6.5 percent) and the expected inflation rate for plant of 1.5 percent. Accelerated depreciation is used for calculating tax depreciation.

The model uses the FCC economic lives for the reporting lives of fiber and DLC equipment.<sup>80</sup> For DLC, the model uses the mid-point of the recommend lives, 12 years.

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<sup>78</sup> Also note that Merrill Lynch recently estimated that there is a "30-40% y/y growth of DS1s and DS3s", "The Business Line Migration Phenomenon: Updated Methodology, Even Better Growth", Merrill Lynch & Co., Telecom Services – Local, September 9, 1998, p.1.

<sup>79</sup> See Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, *Order*, 5 FCC Rcd 7507 (1990), *recon.*, 6 FCC Rcd 7193 (1991).

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For fiber plant, the model uses the lower bound estimate of 25 years. The model uses 5 year accelerated depreciation for DLC plant and 15 year, 1.5 declining balance depreciation rates for tax depreciation on fiber plant.

### **Tax Rate**

The default tax rate is 39.25 percent. This is the default value for taxes in the HAI model, which was supported by AT&T and MCI in numerous cost proceedings over the last three years.

### **OA&M**

The model calculates operations, administration, and maintenance expenses associated with the network investments as a function of gross plant. The model uses 10 percent as the default value. This expense includes the cost of rights of way.

### **Price Trajectory**

The baseline price expectation for DS1s and DS3s is that prices will decline by 5 percent each year beginning in 2000. Annual price declines of 5 percent are based on an inflation rate (GDP-PI) of 1.5 percent per year and an annual productivity offset of 6.5 percent. As shown in the affidavit, the impacts of flat prices and price increases are also examined.

### **No Copper Facilities**

The model does not include the ability for a CAP to provide service for low demand DS1 customers over copper cables, even though it may be significantly less expensive to serve low demand DS1 locations with four-wire copper loop technology.

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<sup>80</sup> Second Report and Order, Federal Communications Commission, CC Docket No. 92-296, Released June 28, 1994, p. 12 and Third Report and Order, Federal Communications Commission, CC Docket No. 92-296, Released May 4, 1995, p. 9.

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## **IV. DATA GENERATION AND CONSTRUCTION**

### **A. DATA SOURCES**

#### **Locations of Ameritech's Customers**

LECG received from Ameritech billing and network data describing the high capacity services that Ameritech sells in the Chicago LATA. For each location the data provided the:

- location of the originating and terminating point of the circuit;
- recurring monthly revenue that Ameritech receives to provide the service;
- types of services provided;
- type of term agreement, if any, that the customer signed when the circuit was ordered;
- date when the term agreement will expire; and
- company purchasing the circuit.

Based upon this data, LECG constructed a table that tallied the total quantity of service and revenue at each location. As part of this process, LECG calculated a total cost of terminating contracts for each location and the weighted average remaining length of existing term agreements. These values are used in the model's lease versus build analysis.

#### **Geocoding of Customer Locations**

After constructing the table of Ameritech customer locations, the locations were geocoded. Approximately 80 percent of all locations were successfully geocoded. These results are in line with the results of geocoding success for the cost proxy models. Locations that were not successfully geocoded were excluded from the analysis. The percentage of locations with a demand of 1-2 DS1s is 72 percent of the data included in the model. For the locations excluded due to unsuccessful geocoding, 80 percent of the

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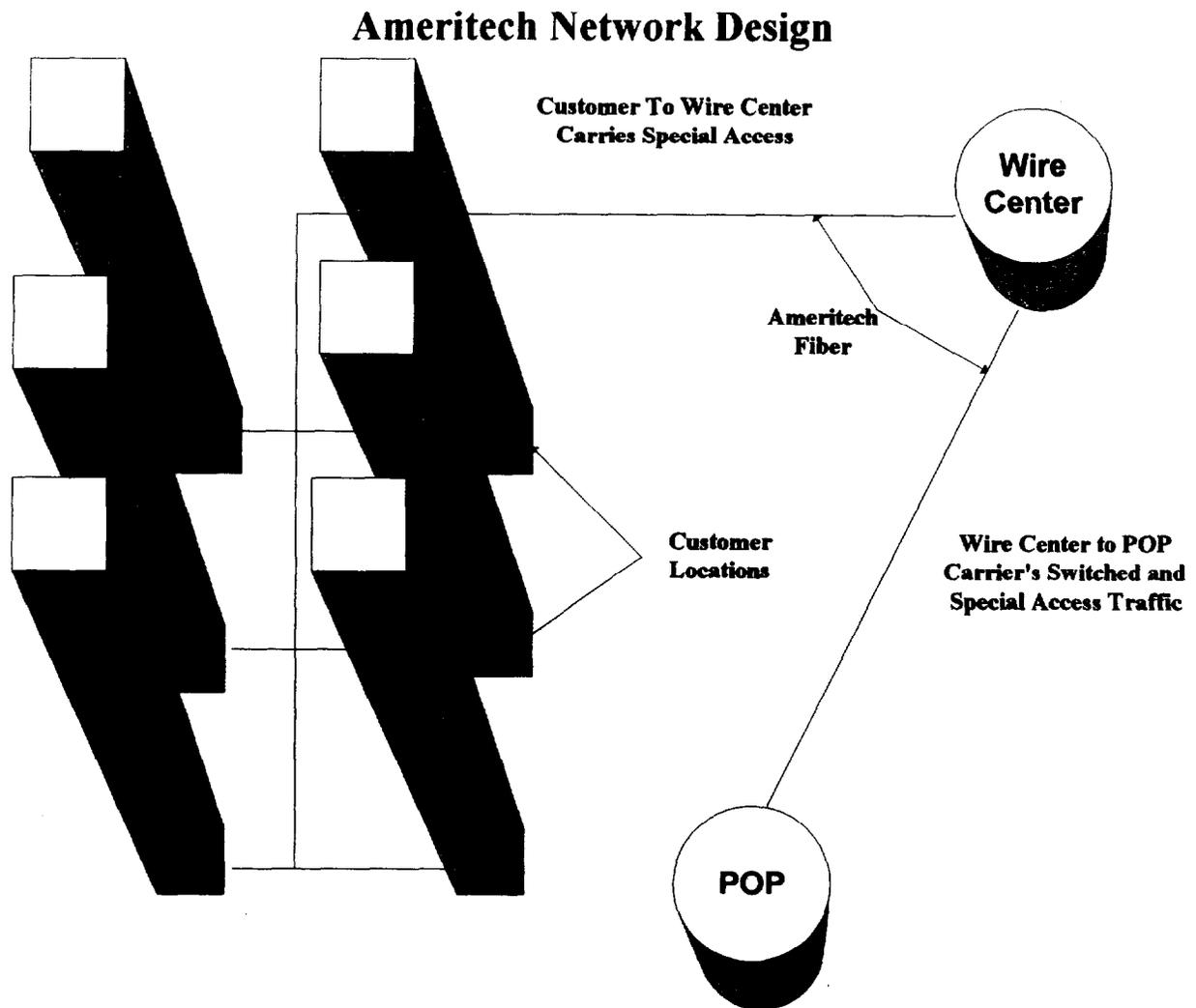
locations have a demand of 1-2 DS1s. It does not appear, therefore, that excluding these locations biases the analysis.

### **Locations of Competitor Fiber Routes**

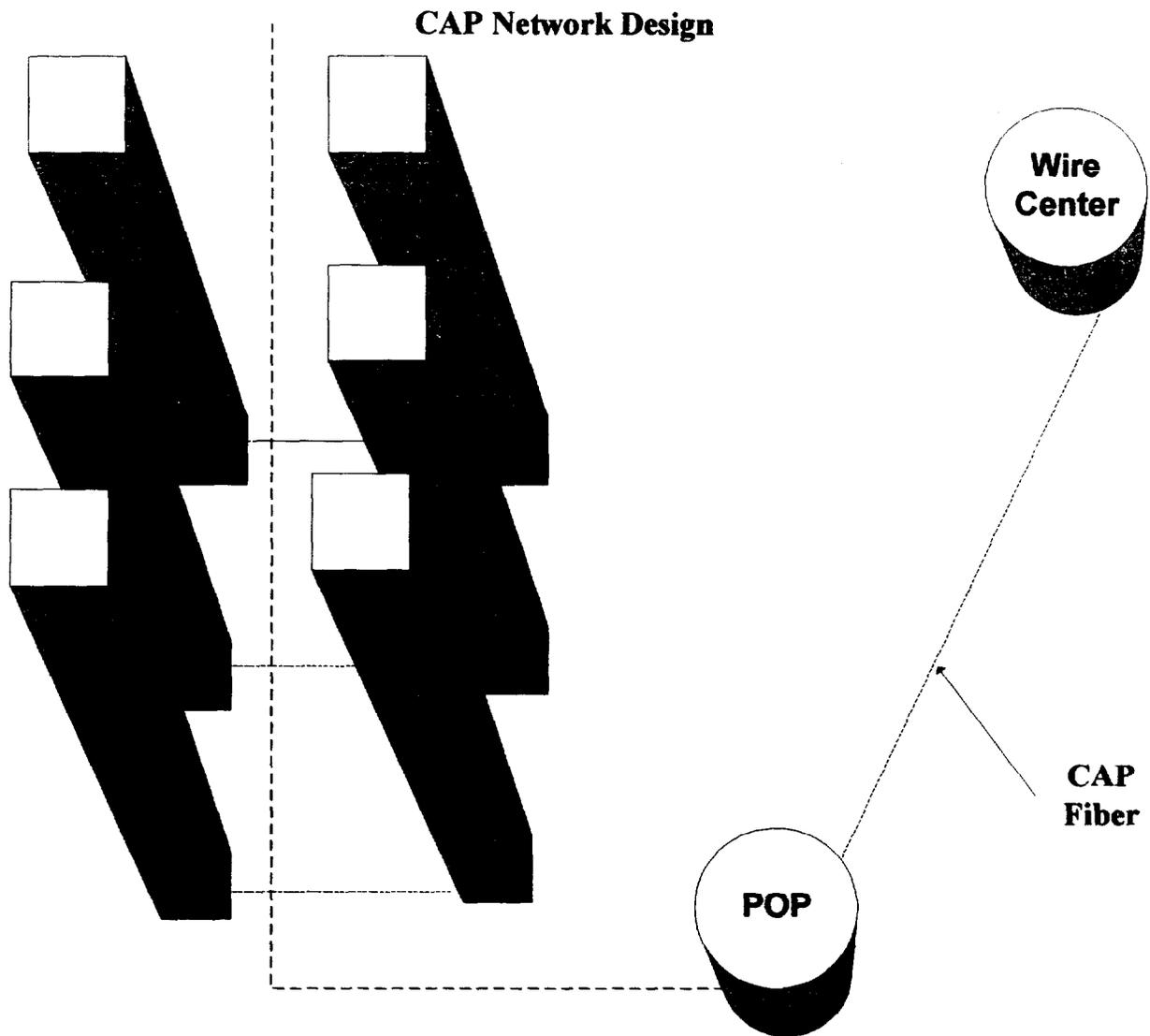
The location of the CAP fiber routes are based upon the maps produced in the 3<sup>rd</sup> Quarter HICAP tracking Report produced by Quality Strategies.

**B. DATA CONSTRUCTION**

To provide special access to a customer, an IXC will typically order two separate circuits from Ameritech. For example, to provide one DS3 to a customer location, an IXC will order: 1) a DS3 to connect the customer's location to the serving wire center of carrier's POP; and 2) a higher level service to transport traffic from the serving wire center to the IXC's POP. This second connection can carry special access traffic from several customer locations and traffic from the switched network to the POP.



For a CAP to bypass Ameritech's network and provide special access service directly to customer locations, a CAP will construct its network differently than Ameritech's network. The CAP will build a connection from its fiber ring to the customer location to provide special access and other services. Second, the CAP will build a fiber route to the Ameritech central office to gather and terminate switched traffic.



To construct a table listing the total quantity of service demanded at each location, each circuit was marked as either building to the originating point, building to the terminating point, or building to both points. The table below lists the possible combinations of circuits included in the analysis and to which end(s) of the circuit the CAP must build.

### Rules For Building Circuits in Analysis

	End User	POP	Ameritech WC	Independent Companies' WC	Wireless/ Competitors' Switches
End User	Keep the circuit Build to both ends	Keep the circuit Build to End User	Keep the circuit Build to End User	Drop the circuit	Keep the circuit Build to both ends
POP		Drop the circuit	Keep the circuit Build to Ameritech WC	Drop the circuit	Keep the circuit Build to Wireless/ Competitors' Switches
Ameritech WC				Drop the circuit	Keep the circuit Build to both ends
Independent Companies' WC				Drop the circuit	Drop the circuit
Wireless/ Competitors' Switches					Keep the circuit Build to both ends

Circuits were excluded from the analysis that are outside the scope of the request for forbearance or are not relevant to the issue of dominance. Circuits with only one end in Ameritech's territory are not part of the forbearance request and were excluded from the analysis. Circuits connecting two of a carrier's points of presence, presumably to add redundancy to their network, were also excluded. These circuits are not relevant for considering the issue of market power.

## V. SCENARIOS ANALYZED

### A. CAP SERVES ALL OR ONE-HALF OF DEMAND AT EACH LOCATION

For each high capacity customer location served by Ameritech's facilities in the Chicago LATA, distances from the known fiber routes of MFS and TCG were calculated. For the LCEM analysis presented in the affidavit, the relevant costs are the costs for the closest CAP(s) to build, operate, and maintain facilities to supply service to the customer location. The amount of cost depends on the distance and demand that the competitor can expect to achieve across time. To examine the alternative demand expectations, the LCEM uses two scenarios:

1. The closest competitor serves all of the demand at each location; and
2. The closest competitor serves only 50 percent of the demand at each location.

This demand consists of current services provided on Ameritech's facilities and expected growth in demand. With expected growth of 30 percent for DS1s and 15 percent for DS3s, current quantities will account for less than half of all DS1 service in 3 years and less than half of all DS3 service in 5 years. An important consideration for current quantities is the potential cost to CAPs associated with termination agreements that customers have with Ameritech.

#### **B. OPTIONS RELATED TO TERMINATION AGREEMENTS**

The majority of high capacity customers purchase service under contracts that range from 1 to 5 years. If a customer terminates the contract prematurely, the customer is required to pay Ameritech the difference in the price per month for the actual duration and the duration stated in the contract times the months that the service was used prior to termination. The LCEM assumes that a competitor that begins serving current demand prior to the end of the contract period incurs the cost of terminating the contract.<sup>81</sup> In the model, three options are considered, and the highest value option is selected. For the selected scenario (1 or 2 immediately above) the three options are:

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<sup>81</sup> For locations with multiple termination agreements, the LCEM uses the weighted average period remaining.

1. The competitor begins its build-out immediately, takes either all or one-half of the demand at the location and incurs the cost of dissolving existing termination agreements with Ameritech;
2. The competitor begins its build-out immediately, takes either all or one-half of the growth, and takes the appropriate share of the current demand when the termination agreements expire; and
3. The competitor waits to build facilities until the existing termination agreements expire, and takes either all or one-half of the demand at the location at that time and the appropriate share of growth going forward.

## VI. INTERPRETATION

### Meaning of a Positive Value Business Case

For all DS1 and DS3 customer locations in the Chicago LATA, the LCEM compares the present values of cash flows associated with building, operating, and maintaining facilities for high capacity services with the cost of leasing facilities from Ameritech. For locations where the model indicates that the present value of building, operating, and maintaining facilities is less than the present value of leasing these facilities from Ameritech, the model indicates that the CAP has an attractive financial opportunity to supply its own facilities. For these locations, there is no meaningful financial barrier to expansion of CAP facilities to serve the majority of the high capacity customer locations served on Ameritech's facilities today, especially considering the substantial financial resources of MCI WorldCom and AT&T. By serving these locations, either MCI WorldCom or AT&T would have facilities at locations that account for more than 90 percent of Ameritech's high-capacity revenue included in this analysis.<sup>82</sup>

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<sup>82</sup> Locations that were not geocoded, circuits that have one end out of Ameritech's territory, and SNET express circuits were not included in the analysis.

**Appendix III:**

**Statement of Quality Strategies, Inc.**



COMMUNICATIONS RESEARCH AND CONSULTING  
PHONE: 703.610.1000  
FAX: 703.903.9123

April 16, 1999

## QUALITY STRATEGIES Statement

QUALITY STRATEGIES is a research and consulting firm working primarily in the telecommunications industry. QUALITY STRATEGIES has provided competitive market information, including market share results and competitive market data to every RBOC and large LEC for the last decade.

QUALITY STRATEGIES has conducted hundreds of similar High Capacity market share studies on a per metro basis in all RBOC regions nationally. In addition, QUALITY STRATEGIES has conducted thousands of research projects measuring market share (Local, HICAP, Data etc.), customer perception, and competitive landscape information extensively throughout the nation in all major metros over the past decade. We are commonly perceived as the industry standard for market share measurement at a product and metro specific level.

### 1) Market Definition

The research process begins with market identification and segmentation. The Overall High Capacity Market is the combination of the Special Access (Provider) and IXC POP (Transport) market segments.

#### Special Access Market Segment

The Special Access Market segment is defined as high capacity services provided by Ameritech or a Competitor over its own facilities to connect a customer premise to a POP. The special access market shares were based on the customer premise-to-local switching office local distribution channels only.

#### IXC POP Market Segment

The IXC POP Market segment is defined as high capacity service provided to carriers by Ameritech or a competitor over its own facilities to connect a CO to a POP or a POP to a POP. The IXC POP market shares were based on the POP-to-local switching office local distribution channels and entrance facilities only.

### 2) Revenue vs. Circuit Equivalents

Overall High Capacity Market Share is provided on a DS1 equivalent circuit basis. All circuits are expressed in terms of 1.544 Mbps. QUALITY STRATEGIES uses the following calculations to determine DS1 equivalent share.

- DS3's Circuits:  $\text{Number of DS3 circuits} \times 28 = \text{Number of DS1 equivalents}$

This equivalency factor equates the market in terms of capacity for traffic. The analysis is based on end to end circuits and not individual end points, therefore the market share for higher bandwidth services are not being overweighted toward DS-1 because the endpoints are not in the equation.

WASHINGTON, D.C. • NORTHERN VIRGINIA • SEATTLE

8614 WESTWOOD CENTER DRIVE, SUITE 550  
VIENNA, VA 22182  
(703) 610-1000

QUALITY STRATEGIES affirms that in order to measure market share accurately, an equal measurement must be used. Market share measurement by the circuit standard is the most accurate method for several reasons. First, in evaluating trend over time, consistency in share measurement necessitates the use of the least fluctuant measure. A circuit is a constant value of measure regardless of which company provides the service. However, the dollar value of that circuit varies by competitor. All providers' charge differently for their circuits, and over time these prices change. Providing a share measure overtime using revenue introduces additional inconsistencies (fluctuations in price/revenues) into the market share. Thus market share of the facilities, and answering the question of who is controlling the end user relationship, must always be checked against the current pricing structure of the individual market. Measuring market share in circuits directly answers the question of who is controlling the end user relationship, and that measure is not dependent on a fluctuating price structure. Therefore, circuits are the most consistent and equal measure for the market.

Second, measuring market share from end-user survey research presents challenges in reducing total error. Our sampling methodology provides results at a 95% confidence level with a  $\pm 5\%$  margin of error. Sampling error is simply one form of potential error in research. Proper survey design and implementation provides an instrument that can reduce the total error that is inherent in all market research. One of the most important challenges to overcome is response bias. By reducing response bias in survey results the overall accuracy of the market share data is improved. An example of response bias would be an end-user overstating the monthly amount paid for a DS-1 circuit. The customer might be including installation charges, or equipment charges in the answer. There are differences in how the service is billed, for example: does it include just the circuit? Does it include hardware (muxes etc.)? Each of these factors further cloud a revenue market share view. While survey design can eliminate a lot of this response error by accurately defining which spending figure is desired it cannot eliminate it altogether. An effective method for reducing this type of bias in High Capacity research is to ask each respondent for the number of circuits in service. Responses to this type of question are much more accurate. If a customer has 8 DS-1 circuits, and that respondent is the telecommunications decision-maker (the QUALITY STRATEGIES standard for interviews), then that respondent is very accurate in reporting 8 DS-1s. The type of question reduces potential response bias because the options for defining potential answers are much less ambiguous. In addition, it is not unusual for customers when asked, "what do you pay for these circuits?" To reply "I don't know". Therefore an accurate base of data is much harder to gather.

The data provided shows market share based on circuits. It should also be noted that QUALITY STRATEGIES' market share, based on circuit equivalents, also reflects the capacity of those circuits in the market place. QUALITY STRATEGIES' market share reflects the true capacity (call handling/volume handling) of each competitor. In addition, in attempting to determine if customers have an option for competitive communications services, measuring market share in the actual service being provided would seem to be most appropriate.

Individual DS1 and DS3 shares are provided on a 1 for 1 basis. However, in order to measure overall share an equivalency must be used in order to integrate different types of circuits with different capacities. Since the same equivalency factors are used for all providers, no single provider's share is over or understated.

Most importantly market share measurement should be an unbiased view, which represents the market in a consistent manner over time. When the same measurement is used for all providers then the market is displayed in an equal manner and the market share is valid as a stand alone number. It is QUALITY STRATEGIES assertion that while our comparison for Revenue and Circuit Share shows the measures give the same directional picture of the market, the consistency of circuit counts over time in addition to the reduction of the response bias from the end-user, clearly indicates circuits are the best measurement.

### 3) Identifying the underlying provider

In identifying the true nature of the provider market QUALITY STRATEGIES is able to incorporate several inputs to refine the accuracy of the final market share. QUALITY STRATEGIES has been tracking competitors across the country for over 10 years. Our internal databases on competitors provide valuable inputs such as a solid foundation of which competitors in each metro offer HICAP service on a facilities basis versus on a resale basis. In addition exhaustive competitive intelligence research details the extent of competitor facilities and thus is quantified in to potential competitor facility reach. A decade of tracking CAPs in all major metros nationwide has established QUALITY STRATEGIES as an industry expert in the nature and extent of CAP/CLEC high capacity offerings. Extensive probing techniques in the survey research increase the accuracy of the results. Survey questions probing for the underlying provider in a reselling situation include questions on what company bills for the service versus provides the underlying service, what company services the circuits for repair, and what company installs the circuits. An important factor in ensuring the accuracy of provider versus retail results, is the screening process for the telecom decision-maker of the end-user business. QUALITY STRATEGIES survey techniques include rigorous screening procedures in order to identify the person responsible for decisions related to telecommunications services. This decision-maker has often played an integral part in the negotiation of the telecom services with the RBOC or the competitor. These decision-makers are knowledgeable on the market for communications service and generally are aware of which company is actually providing the underlying service. This knowledge is necessary for issues that may arise in service, installation, or billing. All of these inputs and checkpoints increase the accuracy of the provider market view.

#### ADDITIONAL BACKGROUND ON QUALITY STRATEGIES

QUALITY STRATEGIES is a research and consulting firm working primarily in the telecommunications industry. Our mission is to assist communications companies that are committed to developing and maintaining effective responses to competition. QUALITY STRATEGIES has provided competitive market information, including market share results and competitive market data to every RBOC and large LEC for the last decade. Our focus on the telecommunications market enhances the results of our research because we have developed industry expertise. QUALITY STRATEGIES is intimately familiar with the nuances of telecommunications competition in all parts of the country. We have national databases and a national competitor intelligence network to monitor expansion of competitors into incumbent LEC's territories and to conduct projections based upon ten years of experiential data; few vendors can demonstrate a similar capability. This expertise is disseminated throughout our entire organization from our field team callers, to our industry analysts, to our senior Directors. The sole

focus on telecom issues increases the efficacy and accuracy of our response team. Having telecom knowledgeable callers increases efficiency and reduces error. This expertise is one of our comparative advantages in the market research industry.

QUALITY STRATEGIES produces research for telecommunications clients, which is used primarily for marketing and financial divisions. Our research provides an objective and acutely accurate description of the marketplace and is performed in accordance with modern statistical sampling practices. Due to the important nature of the research information provided to marketing divisions, it is imperative that QUALITY STRATEGIES provide relevant, up-to-date, and detailed information describing all the aspects of the marketplace.

QUALITY STRATEGIES performs and conducts all research "in house" with no outsourcing of fieldwork. We conduct continuous field research, which includes over 350,000 telephone interviews annually, using our CATI system to enhance calling efficiencies and sample management. QUALITY STRATEGIES maintains its own professional team of analysts, methodologists, client service personnel and calling centers focused exclusively on the telecommunications market.

QUALITY STRATEGIES is a recognized leader in provider market share, customer perception data, and competitive information to the telecommunications industry. Our methodology is detailed and rigorous to eliminate error and bias. We stand behind our research results as accurate and reflective of the true market conditions.

Appendix IV:

Affidavit of Denise M. Reidy

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of )  
 )  
Petition of Ameritech for Forbearance from )  
Dominant Carrier Regulation of its Provision of ) CC Docket No. 99-65  
High Capacity Services in the Chicago LATA )  
 )

Declaration of Denise M. Reidy

I, Denise M. Reidy, Declare as follows:

1. I am currently employed by Ameritech as Director, Market Management, Ameritech Long Distance Industry Services, in Hoffman Estates, Illinois. I have held this position since October 1997.
  
2. I hold a Master of Business Administration degree from Loyola University of Chicago (1988), and a Bachelor of Science degree in Communications from the State University of New York – Brockport (1981). I have 18 years of telecommunications experience in network planning and engineering, sales, strategic marketing and product management. I have been employed by Ameritech (and its subsidiary, Illinois Bell), since 1981.
  
3. In October 1997, I assumed my current position as Director, Market Management, where I am responsible for managing transport and data products and services for the Interexchange Carrier market segment. In my

role, I oversee product development, pricing, strategy and forecasting for this segment.

4. I have been involved in Ameritech's efforts to obtain pricing flexibility relief through acquisition and analysis of market information supporting Ameritech's Petition.
5. I will discuss factors Ameritech considers in setting prices as well as Ameritech's efforts over the past few years to create and implement a number of promotional offers and unique pricing plans that addressed market needs.
6. Ameritech is continually looking for ways to adapt pricing approaches to meet the needs of the market. In the area of Switched and Special Access high capacity services, Ameritech is utilizing all pricing freedoms available today: zone pricing, geographic deaveraging, and volume and term pricing.
7. Ameritech pricing is a function of a number of inputs including, use, cost characteristics, demand, and price basket constraints. On an annual basis, Ameritech surveys pricing throughout the high capacity market. Based on recent analysis, Ameritech believes that its long-term rates are competitively priced.

8. While in recent years Ameritech has increased some rates, these changes have been directed toward monthly rates or short-term contracts. Over the past three years, the number of customers opting for short-term rates has significantly increased. In some cases, customers are employing Ameritech's network as an interim or transitional resource prior to migrating to their own or alternative provider facilities. As costs are spread over all contract terms, the increasing reliance on short-term contracts diminishes Ameritech's ability to recover its costs.
  
9. In addition to employing zone, geographic and volume and term pricing, Ameritech frequently develops promotional offerings that address a market need, or introduce a new product or service. Some of Ameritech's past promotional offerings included Non-Recurring Charge (NRC) waivers such as those associated with the FCC mandated Local Transport Restructure (1993) and Unitary Price Structure elimination (1998). These offerings were intended to facilitate customer transition from usage sensitive pricing to dedicated arrangements. In other promotional offerings, Ameritech has provided customers the opportunity to: optimize their Switched and Special Access networks (The Optimization Plan" (TOP)); subscribe to new SONET product offerings (SONET Hub Rearrangement Plan and Switched Access Feature Group D on SONET waivers); upgrade bandwidth, technology or price plan (Ameritech Base Rate Conversion Promotion, Analog-to-Digital

Conversion and Frame Relay waivers), or help them better manage their networks (Network Reconfiguration Service Installation waivers).

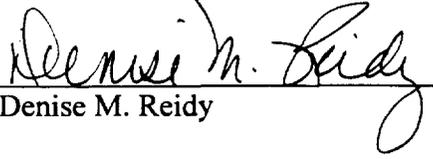
10. In 1997, Ameritech developed an Optional Payment Plan Renewal Program (“Re-Up”) that offered discounted monthly recurring rates to customers renewing Switched Transport (LT1/LT3) and Special Access (DS1/DS3) contracts.
  
11. Over the years, Ameritech has created other proposed offerings designed to provide customers the opportunity to grow their services with Ameritech. These failed to gain acceptance with the FCC.

In late-1996, Ameritech developed a proposed filing known as the Ameritech Network Optimization Plan (ANOP). ANOP was designed to provide customers with ongoing network management and consulting services for the design and implementation of more elegant architectures that enhance network performance, capacity and utilization. Under ANOP, the rates would have reflected the more efficient optimized network. In return, customers would have made certain volume commitments to Ameritech.

During Local Transport Restructure (1993), Ameritech proposed a virtual Direct Trunked Transport Option that would have provided customers with a means of more efficiently utilizing interoffice high capacity transport.

In each case, after numerous discussions with the FCC Staff, and a series of tariff deferrals, both filings were ultimately withdrawn.

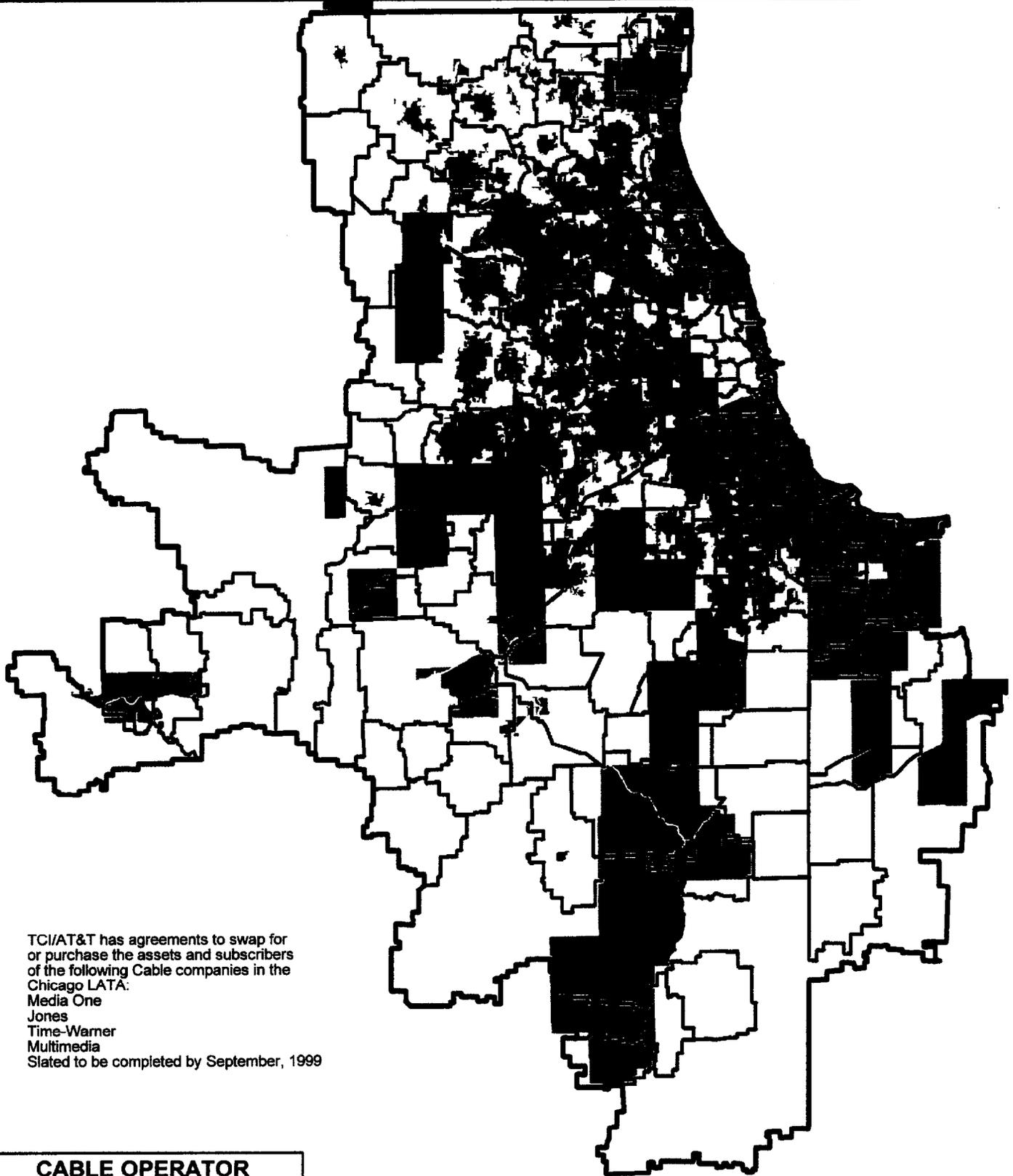
I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

  
Denise M. Reidy

**Exhibit I:**

**AT&T/TCI Cable Presence in Chicago LATA 358**

# Exhibit 1: AT&T/TCI Cable Presence in Chicago LATA 358



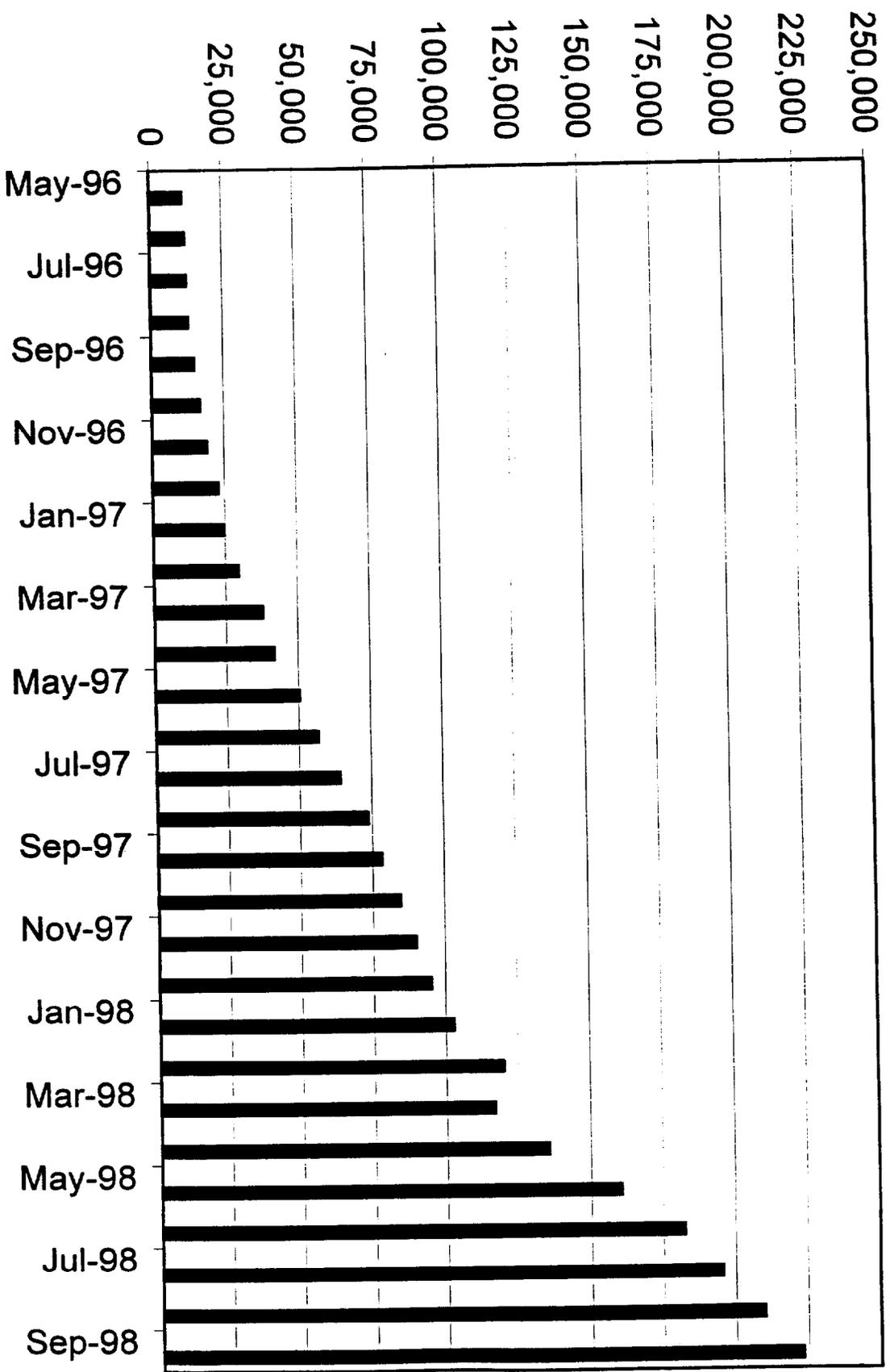
## CABLE OPERATOR

■ AT&T/TCI    ■ TCI Swaps

# **ATTACHMENT B**

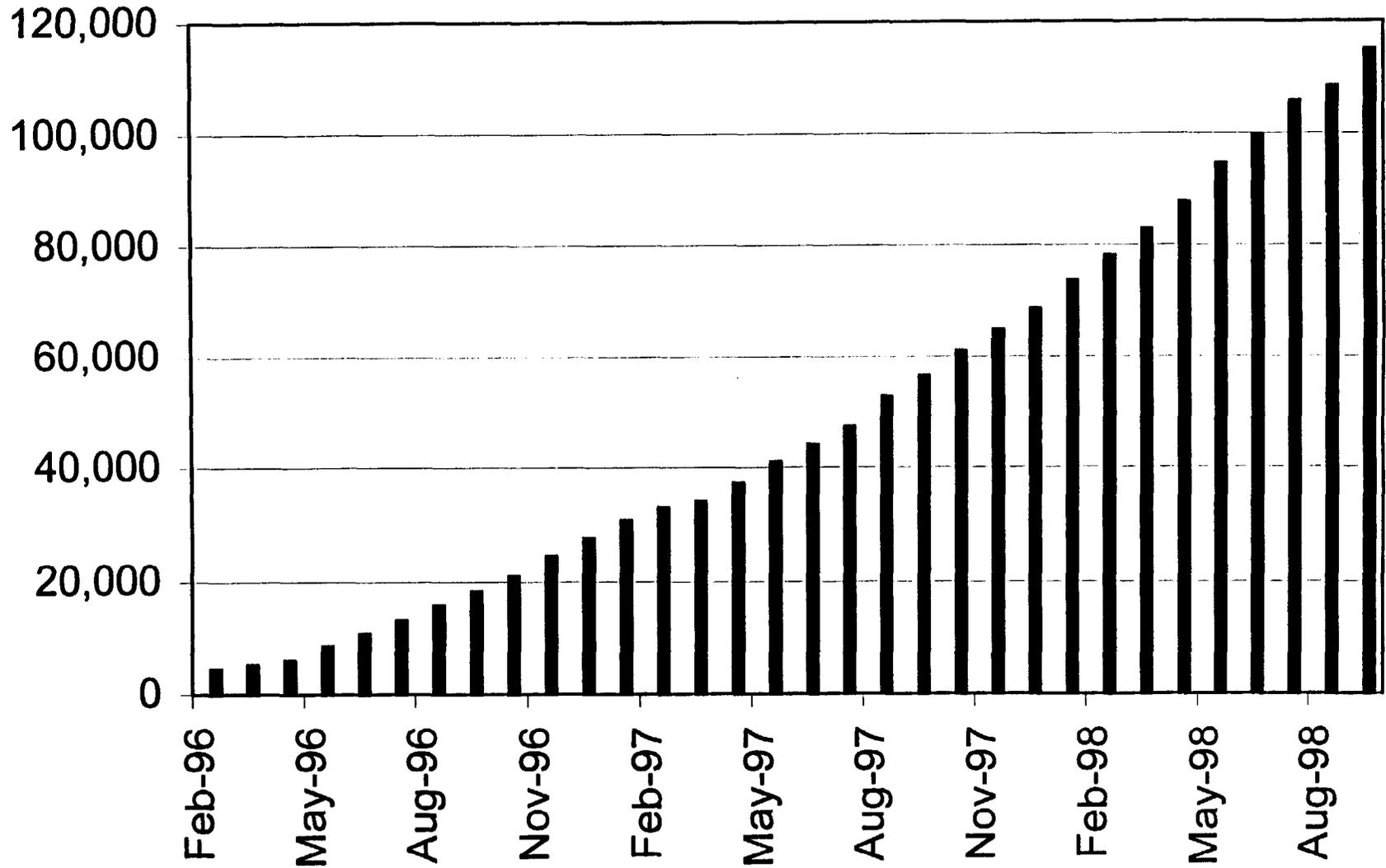
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# End office integration trunks -- Ameritech served region



Cumulative Ameritech provided trunks, not net of any disconnect activity.

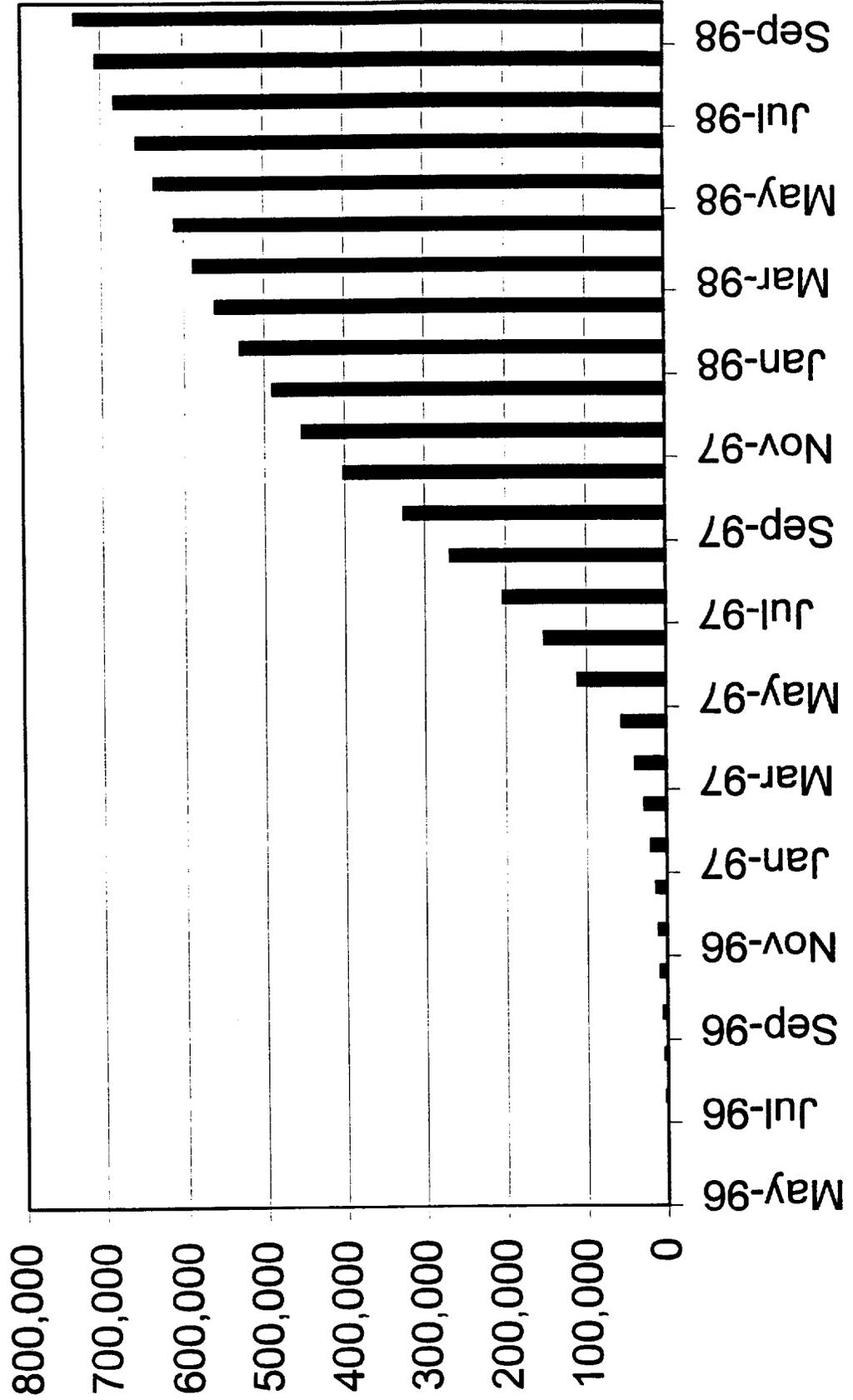
## Unbundled loops -- Ameritech served region



Cumulative Ameritech provided loops, not net of any disconnect activity.

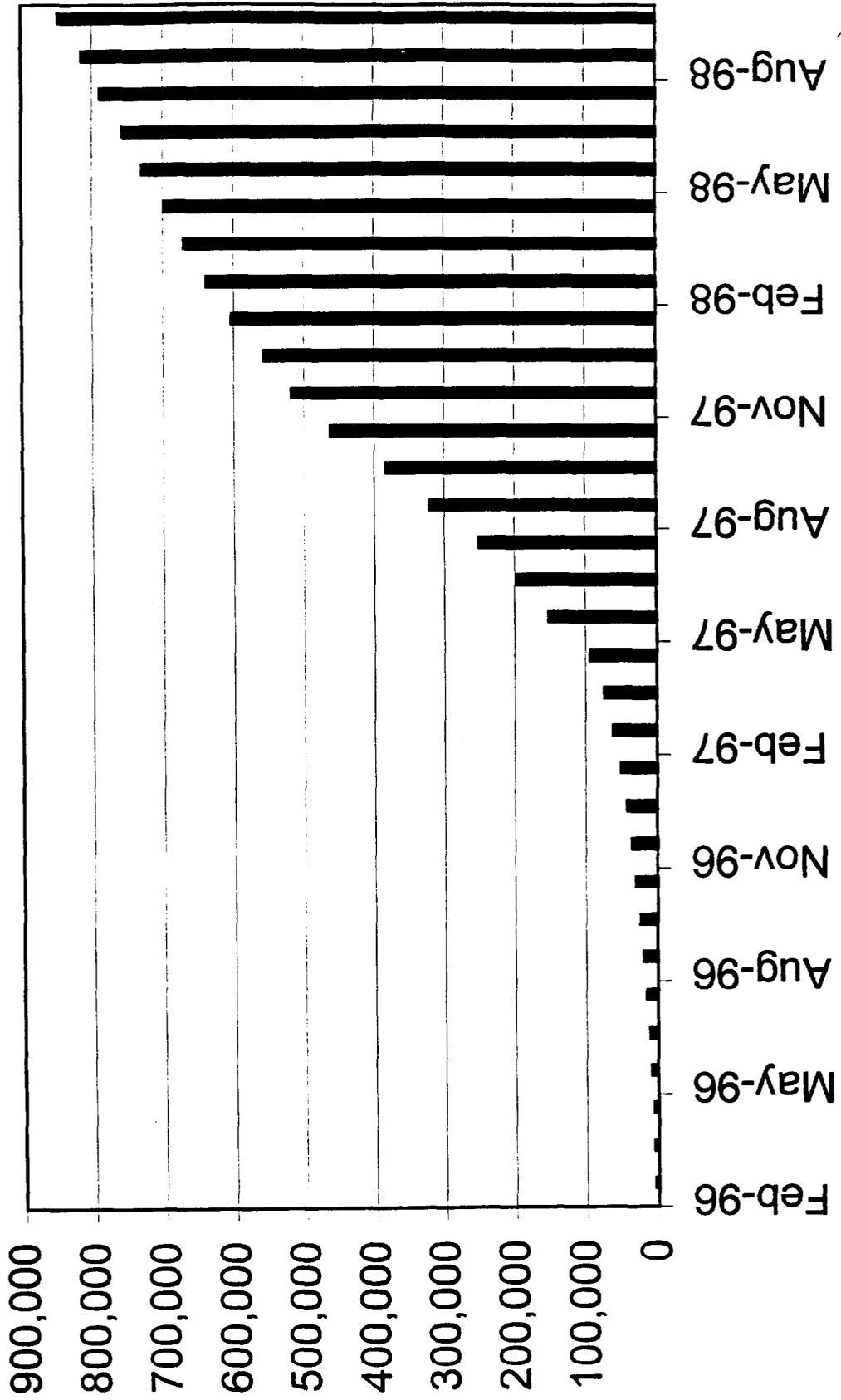
# Resold lines -- Ameritech served region

Excludes resold centrex lines



Cumulative Ameritech provided lines, not net of any disconnect activity.

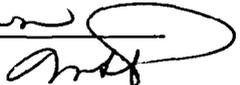
# Competitor lines in the Ameritech region (excluding CLEC self-provisioning)



Cumulative Ameritech provided lines, not net of any disconnect activity.

CERTIFICATE OF SERVICE

I, Grace Germain, do hereby certify that a copy of the Reply Comments of Ameritech has been served on the parties listed on the attached service list, via first class mail, postage prepaid, on this 21<sup>st</sup> day of April, 1999.

By: Grace Germain  
Grace Germain 

RUSSELL M. BLAU  
PATRICK J DONOVAN  
ATTORNEYS FOR FOCAL COMM.CORP.  
AND KMC TELECOM, INC.  
SWIDLER BERLIN SHEREFF  
FRIEDMAN, LLP  
3000 K STREET, N.W., SUITE 300  
WASHINGTON, DC 20007

EMILY M WILLIAMS  
ASSOCIATION FOR LOCAL  
TELECOMMUNICATIONS SERVICES  
888 17<sup>TH</sup> ST., N.W., SUITE 900  
WASHINGTON, D.C. 20036

CAROL ANN BISHOFF  
EXECUTIVE VICE PRESIDENT AND  
GENERAL COUNSEL  
COMPETITIVE TELECOMMUNICATIONS  
ASSOCIATION  
1900 M STREET, N.W.  
SUITE 800  
WASHINGTON, D.C. 20036

LAWRENCE E. SARJEANT  
LINDA L. KENT  
KEITH TOWNSEND  
JOHN W. HUNTER  
ATTORNEYS FOR UNITED  
STATES TELEPHONE ASC.  
1401 H STREET, NW, SUITE 600  
WASHINGTON, D.C. 20005

CHARLES C. HUNTER  
CATHERINE M. HANNAN  
ATTORNEYS FOR  
TELECOMMUNICATIONS RESELLERS ASC  
HUNTER COMMUNICATIONS LAW GROUP  
1620 I STREET, N.W., SUITE 701  
WASHINGTON, D.C. 20006

ERIC J BRANFMAN  
RONALD J. JARVIC  
ATTORNEYS FOR CORECOMM, LTD  
SWIDLER BERLIN SHEREFF  
FRIEDMAN, LLP  
3000 K STREET, N.W., SUITE 300  
WASHINGTON, D.C. 20007

ANDREW D. LIPMAN  
PATRICK J DONOVAN  
ATTORNEYS FOR MCLEOD USA  
TELECOMMUNICATIONS SERVICES, INC.  
SWIDLER BERLIN SHEREFF  
FRIEDMAN, LLP  
3000 K STREET, N.W., SUITE 300  
WASHINGTON, D.C. 20007

ROBERT J. AAMOTH  
MICHAEL B. HAZZARD  
ATTORNEYS FOR COMPETITIVE  
TELECOMMUNICATIONS ASSOCIATION  
1200 19<sup>TH</sup> STREET, N.W.  
FIFTH FLOOR  
WASHINGTON, D.C. 20036

ROBERT M. LYNCH  
ROGER K. TOPPINS  
MICHAEL J. ZPEVAK  
THOMAS A. PAJDA  
KATHLEEN E. PALTER  
ONE BELL PLAZA, ROOM 3003  
DALLAS, TEXAS 75202

LEON M. KESTENBAUM  
JAY C. KEITHLEY  
JAMES W. HEDLUND  
ATTORNEYS FOR SPRINT CORPORATION  
1850 M STREET, N.W.  
WASHINGTON, D.C. 20036

DANIEL M WAGGONER  
ROBERT S. TANNER  
ATTORNEYS FOR NEXTLINK  
COMMUNICATIONS, INC.  
DAVIS WRIGHT TREMAINE LLP  
1155 CONNECTICUT AVENUE, N.W.  
SUITE 700  
WASHINGTON, DC 20036

MARK C. ROSENBLUM  
PETER H. JACOBY  
JAMES W. GRUDUS  
ATTORNEYS FOR AT&T CORP.  
295 NORTH MAPLE AVENUE  
ROOM 3250J1  
BASKING RIDGE, N.J. 07920

ALAN BUZACOTT  
HENRY G. HULTQUIST  
ATTORNEYS FOR MCI WORLDCOM  
1801 PENNSYLVANIA AVE, NW  
WASHINGTON, DC 20006