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August 3, 1998

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### VIA HAND DELIVERY

Ms. Blanca Bayó Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

> Docket No. 980696-TP - In re: Determination of the Cost of Basic Local Re: Telecommunications Service, Pursuant to Section 364.025, Florida Statutes

Dear Ms. Bayó:

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Enclosed are the original and 15 copies of Joseph Gillen's Direct Testimony on behalf of FCCA to be filed in the above docket.

I have enclosed an extra copy of the above document for you to stamp and return to me. Please contact me if you have any questions. Thank you for your assistance. AFA d

RECORDS

Sincerely,

Joseph A. McGlothlin

DOCUMENT NUMBER-DATE

08187 AUG -3 8

FPSC-RECORDS/REPORTING

### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 90 AUG -3 PM 4:28

RECORDS AND REPORTING

HECENED-FPSC

In re: Determination of the Cost of Basic Local Telecommunications Service, Pursuant to Se tion 364.025, Florida Statutes.

THE STREET

Docket No. 980696-TP

Filed: August 3, 1998

## DIRECT TESTIMONY

OF

**JOSEPH GILLAN** 

**ON BEHALF OF** 

## THE FLORIDA COMPETITIVE CARRIERS ASSOCIATION

RECEIVED & FILED FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE 08187 AUG-38 FPSC-RECORDS/REPORTING

## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Determination of the Cost of Basic Local Telecommunications Service, Pursuant to Section 364.025, Florida Statutes.

Docket No. 980696-TP

Filed: August 3, 1998

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## DIRECT TESTIMONY OF JOSEPH GILLAN ON BEHALF OF THE FLORIDA COMPETITIVE CARRIERS ASSOCIATION

## I. Introduction

| 1  | Q. | Please state your name, business address and occupation.                                |
|----|----|-----------------------------------------------------------------------------------------|
| 2  |    |                                                                                         |
| 3  | Α. | My name is Joseph Gillan. My business address is P.O. Box 541038, Orlando, Florida      |
| 4  |    | 32854. I am an economist with a consulting practice specializing in telecommunications. |
| 5  |    |                                                                                         |
| 6  | Q. | Please briefly outline your educational background and related experience.              |
| 7  |    |                                                                                         |
| 8  | Α. | I am a graduate of the University of Wyoming, where I received B.A. and M.A. degrees    |
| 9  |    | in economics. From 1980 to 1985, I was on the staff of the Illinois Commerce            |
| 10 |    | Commission, where I had responsibility for the policy analysis of issues created by the |
| 11 |    | emergence of competition in regulated markets, in particular the telecommunications     |
| 12 |    | industry. While at the Commission, I served on the staff subcommittee for the NARUC     |
| 13 |    | Communications Committee and was appointed to the Research Advisory Council             |
| 14 |    | overseeing NARUC's research arm, the National Regulatory Research Institute.            |

In 1985, I left the Commission to join U.S. Switch, a venture firm organized to develop 1 interexchange access networks in partnership with independent local telephone 2 At the end of 1986, I resigned my position of Vice President-3 companies. 4 Marketing/Strategic Planning to begin a consulting practice. Over the past decade, I 5 have provided testimony before more than 25 state commissions, four state legislatures, the Federal-State Joint Board on Separations Reform, and the Commerce Committee of 6 7 the United States Senate. I currently serve on the Advisory Council to New Mexico State University's Center for Regulation. 8 9 10 0. On whose behalf are you testifying? 11 1 am testifying on behalf of the Florida Competitive Carriers Association (FCCA). The 12 Α. FCCA represents a broad range of telecommunications carriers striving to provide 13 competitive local and long distance services throughout the State of Florida. FCCA's 14 members are committed to the continued realization of that goal commonly known as 15 16 "universal service" -- a goal which, quite candidly, equates to the largest possible base 17 of potential customers for their services. It is FCCA's basic view that standard commercial incentives (i.e., profit) are the principal motivator for "universal service" and 18 additional subsidy should be the exception and not the rule. 19

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**O**.

#### What is the purpose of your testimony?

The central goal of this proceeding is to determine the underlying cost of the network 3 Α. facilities used to provide local exchange service in Florida. As the Commission 4 approaches this technical task, however, it is important to never lose sight of the purpose 5 behind the exercise. The study that the Commission adopts here must accurately 6 estimate the cost of the exchange network, and it must be useful to determine whether 7 a governmentally mandated subsidy is needed to encourage the commercial offering of 8 local service. The purpose of my testimony is to identify two characteristics of an 9 10 appropriate cost model that are necessary to satisfy this basic objective.

11

## 12 13

Q. What are the two characteristics that you recommend be part of an appropriate cost study to determine whether "universal service subsidy" is necessary?

14

15 A. First, an appropriate universal service cost study should recognize that the network 16 facilities (principally the loop and the fixed costs of local switching) used to provide 17 local exchange service inherently provide other services as well (for instance, vertical 18 services, toll and access). The cost of these facilities, however, cannot be assigned 19 among these services in any economically meaningful way. Rather than pursue the 10 fool's errand of cost-assignment, I recommend instead a cost analysis which identifies 11 the *full cost* of the typical family of exchange services offered over these facilities. This

| 1  |    | cost can later be compared (by the Legislature) to the average price paid for this family |
|----|----|-------------------------------------------------------------------------------------------|
| 2  |    | of services to determine whether a need for external subsidy exists.                      |
| 3  |    |                                                                                           |
| 4  |    | Second, the study used to determine the cost of "universal service" should parallel in    |
| 5  |    | methodology, inputs and geographic application the cost analysis used to establish        |
| 6  |    | network element prices. The reason is simple. The economic cost of local exchange         |
| 7  |    | facilities should be the same whether they are used by the incumbent or leased to an      |
| 8  |    | entrant. Establishing a competitively neutral universal service mechanism must begin      |
| 9  |    | with a cost analysis that can be used in both applications.                               |
| 10 |    |                                                                                           |
| 11 |    | Adopting a cost-model with these characteristics is necessary to assure that the analysis |
| 12 |    | presented to the Florida Legislature can be used to rationally address the need (or lack  |
| 13 |    | thereof) for a governmentally sponsored subsidy.                                          |
| 14 |    |                                                                                           |
| 15 | Q. | Which specific issues does your testimony address?                                        |
| 16 |    |                                                                                           |
| 17 | Α. | The specific listed issues which my testimony addresses are:                              |
| 18 |    |                                                                                           |
| 19 |    | 1. What is the definition of the basic local telecommunications service                   |
| 20 |    | referred to in Section F.S. 364.025(4)(b)?                                                |
| 21 |    |                                                                                           |
|    |    |                                                                                           |

2. For purposes of determining the cost of basic local telecommunications 1 service appropriate for establishing a permanent universal service 2 mechanism, what is the appropriate cost proxy model to determine the 3 4 total forward-looking cost of providing basic local telecommunications 5 service pursuant to Section F.S. 364.025(4)(b)? 6 Before you turn to the specific cost issues addressed in your testimony, do you have 7 **Q**. a preliminary observation? 8 9 Yes. As the Commission begins this investigation, the past provides a useful insight. 10 Α. 11 In the predecessor to this proceeding (Docket No. 95-0696-TP), the Commission investigated whether an interim universal service fund was necessary. Despite the claim 12 13 by most of the ILECs that a universal service fund was needed immediately, the Commission instead adopted a procedure which would allow an incumbent LEC to 14 petition for universal service support if it could prove a valid need. In useful contrast 15 to their prediction that universal service was in jeopardy, not a single ILEC has come 16 before the Commission with a petition for support during the more than two and a half 17 18 years that this process has been available. 19

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This lesson provides important background to the cost proceeding underway here.
 History has shown that ILEC claims concerning the "threat of competition" have been
 (and, if repeated here, would continue to be) unfounded. Despite numerous cries during

the 1995 proceeding that widespread local competition was "imminent", the competitive
 landscape is little different now than then. There is still no widespread local competition
 in Florida and ILEC earnings continue to grow.

5 Of course, one reason for these phenomena will become obvious during this proceeding. 6 As explained below, the ILEC residential-monopoly is a *profitable* monopoly, even with 7 the relatively low rates for "dial-tone" local service being charged today. This 8 profitability arises because customers don't typically buy just dial-tone service without 9 also obtaining other services. The financial attractiveness of the residential customer is 10 decided by the family of services sold with local service, and an appropriate cost 11 analysis should recognize this basic fact.

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# Q. How does your testimony relate to the testimony of other competitive witnesses in this proceeding?

15

A. Individual FCCA members (such as AT&T) are also sponsoring witnesses that address
 the technical details of the HAI model as a means to estimate the forward-looking cost
 of exchange facilities in Florida. The HAI model satisfies the criteria I recommend here
 and, as a result, I endorse the Commission's adoption of that methodology.

20

| 1              |    | II. The Importance of Comprehensively Defining "Basic Local Service"                                                                                                                                       |
|----------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2              |    | to Include All Relevant Services and Costs                                                                                                                                                                 |
| 3              |    |                                                                                                                                                                                                            |
| 4              | Q. | Please describe your understanding of the Commission's task in this proceeding.                                                                                                                            |
| 5              |    |                                                                                                                                                                                                            |
| 6              | Α. | In Section F.S. 364.025(4)(b), the Florida Legislature directed the Commission:                                                                                                                            |
| 7              |    |                                                                                                                                                                                                            |
| 8<br>9<br>10   |    | To assist the Legislature in establishing a permanent universal service<br>mechanism, the commission shall determine the total forward-<br>looking cost, based upon the most recent commercially available |
| 11<br>12<br>13 |    | technology and equipment and generally accepted design and placement<br>principles, of providing basic local telecommunications service                                                                    |
| 14             |    |                                                                                                                                                                                                            |
| 15             |    | Implicit in this assignment is the responsibility to define an economically valid cost                                                                                                                     |
| 16             |    | methodology and to report the results of its cost-study to the Legislature in a format that                                                                                                                |
| 17             |    | would allow informed debate on the need for an external, governmentally-mandated                                                                                                                           |
| 18             |    | subsidy fund.                                                                                                                                                                                              |
| 19             |    |                                                                                                                                                                                                            |
| 20             | Q. | Is it possible for the Commission to conduct a cost study limited to "dial tone"                                                                                                                           |
| 21             |    | local service without implicating other services?                                                                                                                                                          |
| 22             |    |                                                                                                                                                                                                            |
| 23             | Α. | No. A large portion of the cost of facilities which provide local exchange service                                                                                                                         |
| 24             |    | (principally the loop and switch) do not provide just local exchange service. These same                                                                                                                   |
| 25             |    | facilities also provide switched access service, vertical services and other intraLATA                                                                                                                     |

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| 1  |    | services as well. This engineering fact carries an important economic implication and       |
|----|----|---------------------------------------------------------------------------------------------|
| 2  |    | underlies an equally important business reality.                                            |
| 3  |    |                                                                                             |
| 4  | Q. | Please explain the economic implication of this observation.                                |
| 5  |    |                                                                                             |
| 6  | Α. | The economic implication is that it is impossible to determine the cost of basic "dial-     |
| 7  |    | tone" local service a cost which would include the cost of the loop and fixed cost of       |
| 8  |    | the switch without also including in that cost the functionality which underlies other      |
| 9  |    | services as well. Even though these facilities are used to provide other services,          |
| 10 |    | however, there is no economically correct method to attribute (allocate or assign, choose   |
| 11 |    | any term) the cost of these facilities to indi idual services.                              |
| 12 |    |                                                                                             |
| 13 |    | This simple fact creates a rather large dilemma. If the full cost of the loop and local     |
| 14 |    | switch is included in the cost of dial-tone local service and this cost is then compared    |
| 15 |    | solely to the price of basic dial-tone local service it is possible to incorrectly conclude |
| 16 |    | that a subsidy is needed even though the customer is highly profitable to serve.            |
| 17 |    |                                                                                             |
| 18 |    | For instance, assume the following set of facts: (1) the fixed cost of the loop and local   |
| 19 |    | switch total \$20.00 per month, (2) the ILEC charges \$15.00/month for local service, and   |
| 20 |    | typically sells the average customer \$10.00 of optional services that cost \$1.00 (given   |
| 21 |    | the existence of the loop and switch). What conclusions can be drawn from this set of       |
| 22 |    | facts?                                                                                      |

1 The first conclusion is that the customer is profitable to serve. The customer spends 2 \$25.00 per month for a family of services that cost \$21.00 per month to produce. No external subsidy is needed or appropriate since the consumer is an attractive customer 3 4 in its own right. 5 Unfortunately, this same set of facts can also be used to mistakenly assert that this same 6 customer needs to be subsidized. This incorrect conclusion is reached if the comparison 7 considers only the local dial-tone service (and price) paid by customer, yet includes the 8 full cost of the underlying loop and local switching facilities. Under this comparison, 9 the revenue (\$15.00) is less than the "cost" (\$20.00), implying that a \$5.00 subsidy is 10 now needed to serve a customer which, in fact, produces a \$4.00 profit. 11 12 How can the Commission assure that the Legislature is provided the information 13 Q. to conduct the appropriate comparison? 14 15 The way to avoid such a result is to understand at the beginning of the cost exercise the 16 Α. important linkage between the cost of underlying facilities and the family of services 17 they support. This linkage can be addressed in two possible ways, only one of which 18 19 I recommend. 20 First, the Commission can conclude that these facilities are joint-use facilities and 21 attempt to allocate a portion of the cost of these facilities to each revenue-producing 22

service (such as vertical services). For example, with the set of facts assumed above, the Commission can assign the \$20.00 loop/switch cost to dial-tone and vertical services in proportion to the revenue received. I am not recommending this approach, however, because of the inherently arbitrary nature of the allocation involved. Fortunately, there is a better way.

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## Q. What is the Commission's second option?

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#### 9 The second approach is consistent with sound economics and costing principles. This A. approach also begins by recognizing that by including the cost of the loop and local 10 11 switch, the cost study is unavoidably including facilities which provide other profitable 12 services. However, instead of attempting to allocate the cost of these facilities, the study would simply include the remaining costs of the entire family of services. That is, the 13 Commission would estimate the total cost of the family of services made possible by the 14 15 loop and local switch. By taking this holistic approach, there is no need for an arbitrary 16 allocation of these costs. What is more, this approach sets the stage for the Legislature to make a valid determination as to whether any exter subsidy is needed because it 17 would allow the Legislature to compare the total cost and revenue (and thus profit) to 18 19 provide service to the typical residential customer.

Q. Is this recommendation also consistent with the "business reality" that you referenced earlier?

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A. Yes. The revenues from optional calling and vertical services (and, if continued to be
priced above cost, switched access service as well) are only practically available to the
customer's local telephone company. Whether served by the entrant or incumbent, the
revenue potential of a customer is not determined *solely* by the revenue received from
the end-user for basic local exchange scrvice. These carriers will also expect to receive
revenues from other services they provide the customer and from the access charges that
are imposed on other carriers.

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12 In these early (i.e., they have not yet started) years of local competition, there is little 13 reason to conclude that competition will challenge the traditional pricing of exchange 14 services which recovers exchange costs in both the basic service rate and in the prices 15 of the other services that the typical customer will purchase. After all, the first goal 16 of a competitive entrant is to win customers. Entrants must convince local customers 17 they should change carriers and will likely offer services that are priced similarly to the 18 incumbent LEC.

- 19
- 20 The fundamental calculus determining a customer's profitability is the full cost of the 21 facilities that serve it and the total revenue from the family of services that it purchases.

| 1  |    | Because this basic equation defines profitability, the same variables should figure        |
|----|----|--------------------------------------------------------------------------------------------|
| 2  |    | prominently in any calculation intended to determine the need for subsidy.                 |
| 3  |    |                                                                                            |
| 4  | Q. | Is it an unusual commercial practice to price some services/products high, and             |
| 5  |    | others low, when they are typically purchased as a family of services/products?            |
| 6  |    |                                                                                            |
| 7  | Α. | No. For instance, it is generally recognized that razor-handles are underpriced (indeed,   |
| 8  |    | frequently distributed in promotions) with the expectation consumers will later purchase   |
| 9  |    | more profitable razor blades. Cellular phones are also priced relatively low, with profits |
| 10 |    | earned as cellular users purchase more expensive air-time. Is wire-line phone service      |
| 11 |    | so different?                                                                              |
| 12 |    |                                                                                            |
| 13 | Q. | Have you analyzed the spending pattern of BellSouth's residential customers in             |
| 14 |    | Florida?                                                                                   |
| 15 |    |                                                                                            |
| 16 | Α. | Yes. BellSouth filed with the FCC a distribution of its residential local revenues for the |
| 17 |    | month of October, 1994. (Universal Service Fund Data Request, CC Docket 80-286,            |
| 18 |    | Order released December 1, 1994). Local service revenues were defined to include flat      |
| 19 |    | monthly charges, extended area service charges, local usage charges, local mileage and     |
| 20 |    | zone charges, local information call charges, taxes, Federal and State subscriber line     |
| 21 |    | charges, other mandatory surcharges and optional services such as touch tone, call         |
| 22 |    | waiting, call forwarding, etc                                                              |

To determine the percentage of BellSouth's residential customers who obtained services other than dial-tone local exchange service, I compared this revenue distribution to a 2 typical monthly price for dial-tone service (\$10.65) plus the FCC's subscriber line 3 charge (\$3,50). Comparing this monthly cost to BellSouth's residential resonue 4 distribution indicates that roughly 91% of its residential customers purchase more than 5 simple dial-tone local exchange service. 6

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This statistic is all the more remarkable considering that it understates the revenue 8 potential of the typical residential customer for three reasons. First, the revenue 9 distribution did not consider the access revenues received from the interLATA long 10 distance calls the average customer either makes or receives in a typical month. Second, 11 the revenue distribution did not consider intraLATA toll revenues (or, alternatively, 12 13 access revenues if the ILEC does not provide the intraLATA toll service). Third, the 14 revenue distribution included customers with only a partial month's service, further 15 understating the typical spending pattern.

16

Do you expect that the revenues from other services will become even more 17 0. 18 important in the future?

19

20 Α. Yes. For instance, local customers are also now potential customers for faster access to 21 Internet services using loop-enhancing technologies such as ADSL. ADSL allows the 22 customer's local loop to support very rapid data speeds, in addition to their basic local

service. BellSouth is currently marketing this service for \$59.95 per month, or \$49.95 1 2 per month if the customer subscribes to its Complete Choice Plan (a \$28.00 per month 3 option). The point here is the obvious fallacy of concluding that a subsidy would be 4 needed for such a customer -- a customer which would provide guaranteed monthly 5 revenues of more than \$70.00 per month -- simply because BellSouth's "dial-tone" rate may be less than the full monthly cost of the local loop. 6 7 As explained above, the "dial-tone" rate is only one component of a customer's revenue 8 potential. And it is reasonable to expect that both the incumbent and the entrant will 9 10 offer relatively low dial-tone rates to attract (or retain) subscribers. This pricing strategy, however, should not provide an excuse for a governmental subsidy to serve 11 12 profitable customers. 13 Is there historical support for your characterization that traditional dial-tone 14 0. 15 pricing is a really a commercial strategy?

16

17 A. Yes. Although now portrayed as a "social" responsibility, the term "universal service"
 18 was first embraced as a commercial goal -- to establish the Bell System as a monopoly
 19 provider of phone service to as many customers as possible. As recounted by Theodore
 20 Vail, the preeminent Chairman of the Bell System:

21The Bell Company, from the commencement of the business, intended to22control the business. The intent is not only claimed by all who were23parties to the management at the time, but it is shown in every record of

1 every transaction in the course of business. One system, one policy, universal service is branded on the business in the most distinct terms. 2 3 4 Notes of Theodore Vail, as cited in The 5 Telecommunications Industry, by Gerald 6 Brock, page 102. Emphasis in the original. 7 8 9 Although BellSouth frequently characterizes its prices as the result of regulation, this 10 perspective ignores its own role. As long ago as 1877, long before regulators entered 11 12 the scene, the price for a set of telephones was \$40.00 per year for a business customer 13 and \$20.00 per year for a residence. (See Brock, The Telecommunications Industry, page 14 92). It is a testament to the strength of the Bell monopoly that 100 years later a similar 15 differential continues to characterize its local exchange prices. The Bell System's 16 commercial self-interest established its pattern of local exchange pricing -- a pattern that 17 regulators may have continued, but they did not invent. 18 19 0. What do you recommend? 20 21 Α. I recommend that the Commission adopt in this proceeding a cost study that estimates 22 the forward-looking cost for the typical family of local services. The cost of this family 23 of services would include the cost of conventional dial-tone local exchange service (i.e., 24 the fixed cost of the loop and local switch), plus the additional costs associated with a 25 typical spending pattern of optional calling, access service and vertical services. The 26 total cost of this typical arrangement can then be used to compare to the average price

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| 1  |    | for this family of services to determine whether any external subsidy is appropriate in  |
|----|----|------------------------------------------------------------------------------------------|
| 2  |    | Florida.                                                                                 |
| 3  |    |                                                                                          |
| 4  | Q. | Does the Commission have the flexibility to provide the Legislature with the             |
| 5  |    | information recommend?                                                                   |
| 6  |    |                                                                                          |
| 7  | Α. | Yes. The Commission has been directed to report to the Legislature the cost of           |
| 8  |    | providing "basic local telecommunications service" (F.S. Chapter 364.025(4)(b)). One     |
| 9  |    | of the issues in this proceeding is the appropriate definition of "basic local           |
| 10 |    | telecommunications service". Although I am not a lawyer, I believe that there is         |
| 11 |    | mbiguity in the Statute concerning the definition of the "basic local telecommunications |
| 12 |    | service" that is to be the object of this universal service cost-study.                  |
| 13 |    |                                                                                          |
| 14 |    | This ambiguity arises because the Florida Statute first defines "basic local             |
| 15 |    | telecommunications service" quite specifically in Section 364.02(2). However, the stated |
| 16 |    | purpose of the cost-study required by Section 364.025 is "[t]o assist the Legislature in |
| 17 |    | establishing a permanent universal service mechanism". Presumably, therefore, the        |
| 18 |    | intent of Section 364.025 is to determine the cost of "universal service", a term the    |
| 19 |    | Legislature defines quite openly as " an evolving level of access to telecommunications  |
| 20 |    | services" (Chapter F.S. 364.025(1).                                                      |

This inconsistency can be read to provide the Commission discretion over defining the precise object of the cost study here -- discretion which I recommend the Commission use to conduct an economically valid cost analysis to establish the cost of the typical family of services that comprise "basic local telecommunications service" as that term 5 is used in Chapter 364.025(4)(b).

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7 Alternatively, if the Commission does not decide to report this "family cost" as the 8 single cost measure in its report to the Legislature, I recommend that the Commission 9 report both the "basic local family cost", along with whatever more limited basic service 10 definition it adopts. With this information, the Legislature can then judge both the 11 relative pricing of basic dial-tone local service and the relative profitability of the 12 average local residential customer, thereby making a more informed decision as to 13 whether any external subsidy is needed.

14

15

#### III. Universal Service and Network Element Pricing

16

17 Q. Has the Florida Legislature provided guidance concerning the type of cost methodology that should be used to estimate the "universal service" cost? 18

19

Yes. The legislation effectively requires that the Commission determine the forward-20 Α. 21 looking, economic cost of exchange facilities. Specifically, Chapter 364.025(4)(b) 22 requires that the Commission determine the forward-looking cost, based upon the

|    | most recent commercially available technology and equipment and generally accepted     |
|----|----------------------------------------------------------------------------------------|
|    | design and placement principles. Similarly, forward-looking costs should also be       |
|    | used to establish the price that an ILEC would charge to provide these same facilities |
|    | to a competitor as a network element. As I explain below, it is important that these   |
|    | standards be applied consistently. That is, the same cost analysis should ultimately   |
|    | be used to determine universal service subsidy and to establish network element        |
|    | prices, most importantly as part of a program to deaverage network element prices.     |
|    |                                                                                        |
| Q. | What would be the effect of calculating universal service subsidies and network        |
|    | element prices from different cost studies?                                            |
|    |                                                                                        |
| Α. | The principal effect would be a competitively distorted universal service mechanism.   |
|    | Competitive neutrality requires that both the UNE-based entrant and the incumbent      |
|    | receive the same effective subsidy (assuming that one is available). If entrants pay   |
|    | network element prices based on one cost analysis, yet subsidies are calculated from   |
|    | a different cost study, then there would be instances where the subsidy available to   |
|    | the entrant would be either too large or too small.                                    |
|    |                                                                                        |
| Q. | Can you provide a simple example to illustrate this point?                             |
|    |                                                                                        |
| Α. | Yes. For instance, consider a wire center where the universal service cost is          |
|    | estimated to be \$40.00. If the price of the network elements used by the entrant      |
|    | А.<br>Q.                                                                               |

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| 1        |    | were \$50.00 (because they were estimated from a different cost methodology or                                                            |
|----------|----|-------------------------------------------------------------------------------------------------------------------------------------------|
| 2        |    | averaged over a different area), however, then the subsidy actually needed by an                                                          |
| 3        |    | entrant would be \$10.00 per month more than the level implied by the USF cost-                                                           |
| 4        |    | study. Conversely, if the network element prices totalled only \$30.00, then the USF-                                                     |
| 5        |    | cost study would indicate a higher subsidy than would actually be needed.                                                                 |
| 6        |    |                                                                                                                                           |
| 7        | Q. | Does the FCC have an expectation that states will calculate universal service                                                             |
| 8        |    | support and network element prices consistently from the same cost analysis?                                                              |
| 9        |    |                                                                                                                                           |
| 10       | Α. | Yes. In fact, one of the reasons that the FCC encouraged state-conducted cost studies                                                     |
| 11       |    | was that this process would permit coordination between the calculation of universal                                                      |
| 12       |    | service support and network element pricing:                                                                                              |
| 13       |    |                                                                                                                                           |
| 14<br>15 |    | We [the FCC] also affirm that state-conducted cost studies have the<br>advantage of permitting states to coordinate the basis for pricing |
| 16       |    | unbundled network elements and determining universal service                                                                              |
| 17       |    | support. This coordination can improve regulatory consistency and                                                                         |
| 18       |    | avoid such marketplace distortions as unbundled network element cost                                                                      |
| 19<br>20 |    | calculations unequal to universal service cost calculations for the<br>elements that provide supported services.                          |
| 21       |    | etements that provide supported services.                                                                                                 |
| 22       |    | Federal Communications Commission,                                                                                                        |
| 23       |    | Report and Order, Docket 96-45, Adopted                                                                                                   |
| 24       |    | May 8, 1997, paragraph 247.                                                                                                               |
| 25       |    |                                                                                                                                           |
| 26       |    |                                                                                                                                           |
|          |    |                                                                                                                                           |

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| 1  | Q. | Is it important that the geographic unit used to determine subsidy be the same           |
|----|----|------------------------------------------------------------------------------------------|
| 2  |    | geographic unit used to define network element prices?                                   |
| 3  |    |                                                                                          |
| 4  | Α. | Yes. There must be a consistent policy regarding geographic averaging for both           |
| 5  |    | network element pricing and universal service support. That is, whatever geographic      |
| 6  |    | unit is used for one should also be used for the other.                                  |
| 7  |    |                                                                                          |
| 8  | Q. | Please provide an example that illustrates why the same geographic zones should          |
| 9  |    | be used for network element prices and universal service support.                        |
| 10 |    |                                                                                          |
| 11 | Α. | Assume that Florida has only two exchanges/wire-centers: a "high-cost" exchange          |
| 12 |    | (with a monthly cost of \$30.00) and a "low-cost" exchange (with a monthly cost of       |
| 13 |    | \$10.00). For purposes of illustration, assume that a single network element price is    |
| 14 |    | established for these two Florida exchanges. The relevant question is then how           |
| 15 |    | should the universal service cost be aggregated?                                         |
| 16 |    |                                                                                          |
| 17 |    | In this example, the average cost for these two exchanges is \$20.00/month. If these     |
| 18 |    | exchanges are averaged for network element pricing, then they should also be             |
| 19 |    | averaged to determine universal service support. To do otherwise would provide the       |
| 20 |    | entrant with too little support in the low-cost exchange (that is, the entrant's cost in |
| 21 |    | that exchange would be \$20.00/month, not \$10.00), and too much support in the          |
| 22 |    | high-cost exchange (where the entrant's cost is \$20.00 and not \$30.00).                |

| 1  | Q. | Does this mean that the Commission should establish new network element                  |
|----|----|------------------------------------------------------------------------------------------|
| 2  |    | prices deaveraged for each wire center in Florida?                                       |
| 3  |    |                                                                                          |
| 4  | Α. | No, not necessarily. In a perfect world, the most efficient outcome might be to          |
| 5  |    | establish separate network element prices for each exchange or wire center. In the       |
| 6  |    | real world, however, practical considerations such as the administrative difficulty      |
| 7  |    | from having separate rates for each and every wire center in Florida, even if they       |
| 8  |    | have similar cost characteristics justify some averaging of like exchanges.              |
| 9  |    | Whatever the level of geographic averaging is adopted, however, it should be used        |
| 10 |    | for both universal service and network element pricing.                                  |
| 11 |    |                                                                                          |
| 12 | Q. | How should this need to consistently define universal service costs and network          |
| 13 |    | element prices affect the Commission's report to the Legislature here?                   |
| 14 |    |                                                                                          |
| 15 | Α. | The Legislature has directed the Commission estimate the network cost using a basis      |
| 16 |    | no greater than the wire center as the unit of estimation. This means that the starting  |
| 17 |    | point for the analysis should be a unique estimate of the cost of the network facilities |
| 18 |    | used to provide universal service in each wire center in Florida.                        |
| 19 |    |                                                                                          |
| 20 |    | This step, however, is only the beginning. I also recommend that the Commission          |
| 21 |    | establish a preliminary grouping of wire centers into zones to deaverage network         |
| 22 |    | element prices and report the average cost for each of these zones.                      |

| 1  |    | Finally, because network element prices are currently established on a statewide        |
|----|----|-----------------------------------------------------------------------------------------|
| 2  |    | average basis, I recommend that the Commission also report to the Legislature the       |
| 3  |    | statewide cost of universal service.                                                    |
| 4  |    |                                                                                         |
| 5  | Q. | Has the Commission previously expressed any reservation concerning using a              |
| 6  |    | consistent methodology to calculate network element prices and universal service        |
| 7  |    | support?                                                                                |
| 8  |    |                                                                                         |
| 9  | Α. | Yes. On April 22, 1997, Chairman Julia Johnson wrote Reed Hundt (Chairman of            |
| 10 |    | the Federal Communications Commission) expressing the view that different cost          |
| 11 |    | studies should be used to establish network element prices than should be used for      |
| 12 |    | universal service support. The basic rationale in the letter was that universal service |
| 13 |    | cost should reflect the cost of a "hypothetical" network, while network element prices  |
| 14 |    | should be based on the cost of the incumbent's "existing" network                       |
| 15 |    |                                                                                         |
| 16 |    | Although this may have seemed a reasonable distinction at the time the letter was       |
| 17 |    | drafted, I believe that the distinction it draws that is, the distinction between the   |
| 18 |    | forward-looking cost of the existing and hypothetical network is overstated. The        |
| 19 |    | most important criteria of an economic cost analysis are that it be forward-looking     |
| 20 |    | and least-cost. These criteria and the generally accepted starting point that cost      |
| 21 |    | proxy models should accept the ILEC's wire-center locations as fixed effectively        |
| 22 |    | eliminate the modeling distinction referenced in Chairman Johnson's letter.             |
|    |    |                                                                                         |

The criterion that the cost-study be forward-looking substantially reduces the 1 significance of the existing network architecture. It is only appropriate to estimate 2 the forward-looking costs of the existing network configuration if the existing 3 network configuration would be used in the future. In an industry with rapidly 4 changing technology, however, the existing network is not likely to be the cost-object 5 modeled to determine forward-looking costs. As a result, any forward-looking study 6 will model a "hypothetical" network simply because, by definition if nothing else, the 7 future has not yet occurred. 8

9

On the other hand -- and independent of any theoretical propriety -- in practice 10 universal service cost proxy models do not consider purely "hypothetical" networks. 11 The cost-proxy models with which I am familiar with (the HAI model sponsored by 12 competitive entrants and the INDETEC model typically sponsored by incumbents) 13 begin with the assumption that the location of switches (i.e., the wire center) is fixed. 14 This "fixed wire center" assumption means that the cost being estimated is the 15 forward-looking investment cost relevant to a network with these wire centers. There 16 is nothing hypothetical about studies which begin with the basic wire-center footprint 17 of the incumbent. 18

19

Together, these factors diminish the concern expressed in Chairman Johnson's letter
 that universal service and network element prices should be derived from different
 cost studies. The forward-looking criterion means that an appropriate network-

| 1  |    | element study would evaluate more than the ILEC's existing network; while the          |
|----|----|----------------------------------------------------------------------------------------|
| 2  |    | fixed-wire center assumption constrains a cost-proxy model to estimating the ILEC's    |
| 3  |    | forward-looking cost and not some hypothetical network.                                |
| 4  |    |                                                                                        |
| 5  | Q. | What do you recommend?                                                                 |
| 6  |    |                                                                                        |
| 7  | Α. | I recommend that the Commission strive to consistently apply the same cost             |
| 8  |    | methodology including its geographic application to determine the cost of              |
| 9  |    | network facilities used to provide universal service and to establish network element  |
| 10 |    | prices. The end-point of these processes should be a consistently defined universal    |
| 11 |    | service subsidy system and deaveraged prices for network elements. Only the            |
| 12 |    | consistent application of the same methodology will assure the creation of a           |
| 13 |    | competitively neutral universal service mechanism.                                     |
| 14 |    |                                                                                        |
| 15 |    | The Commission should establish preliminary zones for network element prices and       |
| 16 |    | report universal service costs to the Legislature for each zone. This information      |
| 17 |    | could then be used by the Legislature to evaluate the need for a permanent universal   |
| 18 |    | service system, and by the Commission to deaverage network element prices on a         |
| 19 |    | going-forward basis. This approach is clearly preferable to the alternative of waiting |
| 20 |    | for the Legislature to establish a universal service system without this important     |
| 21 |    | guidance, and then having to match network element prices to whatever geographic       |
| 22 |    | system the Legislature adopts.                                                         |
|    |    |                                                                                        |

1 Q. Does this conclude your testimony?

11

- 2
- 3 A. Yes.

#### CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Direct Testimony of

Joseph Gillan has been furnished by United States mail or hand delivery(\*) this 3rd day of

August, 1998, to the following:

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