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KELLEY DRYE & WARREN LLP

A LIMITED LIABILITY PARTNERSHIP

1200 19TH STREET, N.W.

SUITE 500

WASHINGTON, D.C. 20036

(202) 955-9600

FACSIMILE

(202) 955-9792

DIRECT LINE (202) 887-1209

E-MAIL: mhazzard@kelleydrye.com

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June 7, 2000

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, Florida 32399-0850

Re: Direct Testimony of George S. Ford - FL Docket No. 990649-TP

Dear Ms. Bayo:

Please find enclosed for filing in the above matter an original and fifteen (15) copies of the Direct Testimony of George S. Ford on behalf of Z-Tel Communications, Inc. A date-stamp copy is enclosed with a stamped return envelope addressed back to my attention.

Service has been made as indicated on the attached Certificate of Service. If there are any questions regarding this filing, please feel free to contact me at (202) 887-1209.

- APP \_\_\_\_\_
  - CAF \_\_\_\_\_
  - CMP *Delia*
  - COM *Stoy*
  - CTR \_\_\_\_\_
  - ECR \_\_\_\_\_
  - LEG *2*
  - OPC \_\_\_\_\_
  - PAI \_\_\_\_\_
  - RGO \_\_\_\_\_
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  - OTH \_\_\_\_\_
- Enclosures

Sincerely,

Michael B. Hazzard

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FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

07030 JUN-88

FPSC-RECORDS/REPORTING

ORIGINAL

**BEFORE THE STATE OF FLORIDA  
PUBLIC SERVICE COMMISSION**

Investigation into pricing of  
unbundled network elements

)  
)

Docket No. 990649-TP

**TESTIMONY OF  
DR. GEORGE S. FORD  
ON BEHALF OF  
Z-TEL COMMUNICATIONS, INC.**

June 8, 2000

DOCUMENT NUMBER-DATE

07030 JUN-88

FPSC-RECORDS/REPORTING

1    **I.       INTRODUCTION**

2    **Q.           Please state your name and business address.**

3    A.           My name is George S. Ford. I am the Chief Economist of Z-Tel  
4                Communications, Inc. My business address is 601 South Harbour Island  
5                Boulevard, Suite 220, Tampa, Florida 33602.

6    **Q.           Briefly describe you education educational background and related  
7                professional experience.**

8    A.           I received a Ph.D. in Economics from Auburn University in 1994. My  
9                graduate work focused on the economics of industrial organization and regulation  
10               with course work emphasizing applied price theory and statistics. My  
11               professional background covers work experiences in private industry and the  
12               Federal Communications Commission ("FCC").

13               Prior to joining Z-Tel, I worked at MCI Worldcom, where I served as a  
14               Senior Economist in the Law and Public Policy group. MCI Worldcom's Law  
15               and Public Policy group is responsible for developing MCI Worldcom's public  
16               policy positions for both federal and state regulatory proceedings. The economic  
17               staff in this group also assists MCI Worldcom's business units in assessing the  
18               financial impact of various regulatory reforms and evaluating business decisions  
19               and prospects. While at MCI Worldcom, I filed declarations and economic  
20               studies on a variety of topics with both federal and state regulatory agencies.

21               Prior to MCI Worldcom, I served as an Economist at the FCC in the  
22               Competition Division of the Office of the General Counsel. The Competition  
23               Division of the FCC was tasked with ensuring that FCC policies were consistent

1 with the goals of promoting competition across the communications industries. In  
2 this role, I advised the FCC's various bureaus on a wide range of issues and  
3 participated directly and indirectly in competition-relevant proceedings across the  
4 entire scope of the FCC's jurisdiction, including domestic and international  
5 telecommunications, multi-channel video, broadcasting, computer interference  
6 standards, and the implementation of the 1996 Telecommunications Act.

7 In addition to my professional experience described above, I am an  
8 Affiliated Scholar with the Auburn Policy Research Center at Auburn University.  
9 Through this professional relationship, I have maintained an active research  
10 agenda on communications issues and have published research papers in  
11 numerous academic journals, including the *Journal of Law and Economics*, the  
12 *Journal of Regulatory Economics*, *Applied Economics*, and the *Review of*  
13 *Industrial Organization*, among others. I regularly speak at conferences, both at  
14 home and abroad, on the economics of telecommunications markets and  
15 regulation.

16 **Q. Please describe Z-Tel's service offerings.**

17 **A. Z-Tel is a Tampa-based, integrated service provider that presently**  
18 **provides competitive local, long distance, and enhanced services to residential**  
19 **consumers in Massachusetts, New York, Pennsylvania, and Texas. Z-Tel plans to**  
20 **expand operations to other states, including Florida, as the unbundled network**  
21 **element platform ("UNE-P") becomes available at TELRIC rates. Z-Tel's service**  
22 **is not just a simple bundle of traditional telecommunications services. Z-Tel**  
23 **provides unique services that combine local and long distance**

1 telecommunications services with web-based software that enables each Z-Tel  
2 subscriber to organize his or her communications, including email, voicemail, fax,  
3 and even Personal Digital Assistants (“PDA”), by accessing a personalized web  
4 page via the Internet. In addition, the personal Z-Line number can be  
5 programmed to follow the customer anywhere via a “Find Me” feature. Other  
6 service features include low long distance rates from home or on-the-road and  
7 message notification by phone, email, or pager. Customers can also initiate  
8 telephone calls (including conference calls in the near future) over the traditional  
9 phone network, using speed-dial numbers from their address book on their  
10 personalized web page.

11 **Q. What interest does Z-Tel have in this proceeding?**

12 Z-Tel’s services bundle many different communications services –  
13 voicemail, email, fax, Internet, PDAs, and local and long distance  
14 telecommunications – into an easy-to-use communications control center. To  
15 provide the local exchange portion of its service offering, Z-Tel depends on UNEs  
16 purchased from incumbent local exchange carriers. Therefore, the UNE rates set  
17 by this Commission will directly affect Z-Tel’s ability to provide service to  
18 residential consumers in Florida.

19 **Q. What is the purpose of your testimony?**

20 **A.** I present testimony regarding Issue 5, which addresses signaling networks  
21 and call-related databases, as identified by the Commission in Order No. PSC-00-  
22 0540-PCO-TP.

23

1 **II. THE COMMISSION SHOULD SET PERMANENT RATES FOR**  
2 **ALL SIGNALING AND CALL-RELATED DATABASE ITEMS,**  
3 **INCLUDING ADVANCED INTELLIGENT NETWORK ITEMS**  
4

5 **Q. What is Z-Tel's concern as it relates to signaling networks and call-**  
6 **related databases?**

7 A. Z-Tel asserts that prices and conditions associated with accessing  
8 signaling networks and call-related databases utilized in the provision of  
9 Advanced Intelligent Network ("AIN") services should be developed in  
10 conjunction with Docket No. 990649. Specifically, the Commission in this  
11 Docket should establish permanent rates associated with SS7 queries and  
12 responses, AIN service management system ("SMS") access, and AIN Toolkit  
13 services (including required access to central office switch triggers).

14 **Q. How have end-user telecommunications services typically been**  
15 **provided?**

16 A. Historically, all end-user feature functionality has been performed either  
17 by customer premise equipment ("CPE") supplied by the customer or by software  
18 stored in the local central office switch providing service to that end user. When a  
19 carrier wanted to offer new services, they were required to go to equipment and  
20 switch vendors and ask that new functionality be developed to meet their  
21 specifications. This was a very time consuming and expensive process and  
22 allowed for little or no customization to meet individual customer needs.

23 **Q. How are end-user services provided using AIN?**

24 A. In AIN architectures, the feature functionality software is split between the  
25 central office switch and adjunct call-related processors. The switch can stop or

1 suspend call processing at predetermined points using a central office switch  
2 “trigger” and query a central processor (or database), know as a Service Control  
3 Point or “SCP,” for instructions on how to route, monitor, or terminate a call.  
4 AIN presently is being utilized for numerous applications, such as local number  
5 portability, single number service (*i.e.*, 500 number service), and voice  
6 recognition dialing.

7 AIN applications are developed and tested in an off-line computer known  
8 as a Service Creation Environment, or “SCE.” Once an AIN application is  
9 successfully tested, the application is uploaded into an SMS, and the SS7 network  
10 is then utilized to pass call processing information back and forth between the end  
11 user’s local switch and the SCPs.

12 **Q. Why is access to the AIN important to Z-Tel?**

13 **A.** The AIN is a mechanism by which carriers can utilize existing switches to  
14 provide enhanced feature functionality to end users. It will allow Z-Tel to provide  
15 innovative new services to end-users through the existing telecommunications  
16 infrastructure. Allowing competitors to access AIN components and call-related  
17 databases promotes innovation and enables competitors to utilize all of the  
18 features and functions of the central office switch in conjunction with call-related  
19 databases, as required by the Telecommunications Act of 1996. Thus, final, cost-  
20 based pricing for AIN elements is critical to ensuring that Z-Tel and others can  
21 access these critical pieces of the incumbent’s network.

22 **Q. Why is access to the AIN important to end users?**

1 A. Without access to AIN components, end-users will suffer due to arbitrary  
2 limitations on the ability of competitors to develop new service applications  
3 supported by adjunct call-related databases/processors.

4 Q. **Is Z-Tel accessing AIN call-related databases offered by any**  
5 **incumbent local exchange carrier?**

6 A. On a test basis, yes. Z-Tel is currently developing an AIN service  
7 application using Bell Atlantic's AIN offering. The service has been deployed in  
8 a laboratory environment and is currently undergoing testing. Z-Tel currently  
9 expects that the service will be deployed in the Bell Atlantic region in the third  
10 quarter of this year.

11 Q. **Has BellSouth proposed rates in association with access to AIN call-**  
12 **related databases?**

13 A. Yes, on a limited basis. BellSouth has proposed rates in association with  
14 access to their AIN SMS. They have also proposed rates in association with their  
15 AIN Toolkit service. These rate elements would support Z-Tel's utilization of  
16 BellSouth SCP components to develop adjunct services. However, BellSouth  
17 does not propose rates in conjunction with interfacing BellSouth switches with Z-  
18 Tel provided call-related databases or "SCPs." Z-Tel's review of BellSouth's  
19 testimony filed in this case did not shed any light as to why pricing for such  
20 access is not included in its proposed rates.

21 Q. **Can you comment on the appropriateness of rates suggested by**  
22 **BellSouth for the limited AIN interconnection it proposes?**



1 A. It is my understanding that the issue of the appropriateness of rates  
2 suggested by BellSouth should be deferred to the second phase of this proceeding.  
3 Therefore, I reserve the right to provide such comment at that time.

4 **Q. Can you comment on the structure of the rates suggested by BellSouth**  
5 **for the limited AIN interconnection it proposes?**

6 A. Again, specific questions regarding rates and rate structure are better left  
7 to the second phase of this proceeding. However, I can state that Z-Tel is  
8 concerned that one group of rate elements proposed by BellSouth does not reflect  
9 call-related database expenses and may actually result in double recovery of  
10 certain switching costs. Z-Tel's position is that BellSouth is fully recovery its  
11 AIN switch trigger costs through its unbundled local switching rate.

12 To the extent that BellSouth's proposed rate for the unbundled local  
13 switching element fully recover the entire cost of local switching, any attempt to  
14 recover AIN trigger costs through additional rate elements, such as BellSouth's  
15 "Trigger Access Charge," would clearly be unsupportable. Also, to date,  
16 BellSouth has not presented any convincing evidence as to why provisioning AIN  
17 switch triggers should generate any additional costs if they are deployed in  
18 association with the initiation of service for a particular end-user.

19 **Q. Does this conclude your testimony?**

20 A. Yes.