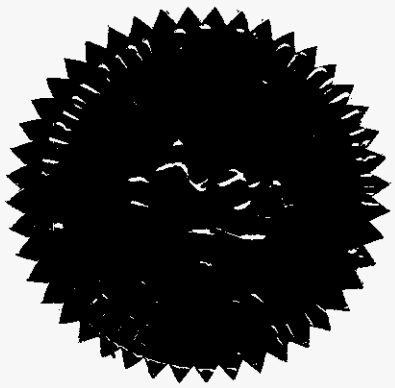
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of	DOCKET NO. 961230-TP
Petition by MCI Telecommunications Corporation for arbitration with United Telephone Company of Florida and Central Telephone Company of Florida concerning interconnection rates, terms, and conditions, pursuant to the Federal Telecommunications Act of 1996.	



FIRST DAY - MORNING SESSION

VOLUME 1

Pages 1 through 153

PROCEEDINGS:	**HEARING**
BEFORE:	CHAIRMAN SUSAN F. CLARK COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING COMMISSIONER JOE GARCIA
DATE:	**Wednesday, December 18, 1996**
TIME:	Commenced at 9:30 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	H. RUTHE POTAMI, CSR, RPR Official Commission Reporter

APPEARANCES:

RICHARD D. MELSON, Hopping Green Sams and Smith, Post Office Box 6526, Tallahassee, Florida 32314, appearing on behalf of **MCI Telecommunications Corporation and MCImetro Access Transmission Services, Inc.**

MARTHA MCMILLIN, 780 Johnson Ferry Road, Suite 700, Atlanta, Georgia, 30342, appearing on behalf of **MCI Telecommunications and MCImetro Access Transmission Services.**

JOHN P. FONS and J. JEFFRY WAHLEN, Ausley & McMullen, Post Office Box 391, Tallahassee, Florida 32302, appearing on behalf of **United Telephone Company of Florida and Central Telephone Company of Florida.**

MARTHA CARTER BROWN and COCHRAN KEATING, Florida Public Service Commission, Division of Legal Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0870, appearing on behalf of the **Commission Staff.**

WITNESSES - VOLUME 1

EXHIBITS - VOLUME 1

P R O C E E D I N G S

(Hearing convened at 9:35 a.m.)

CHAIRMAN CLARK: Let's call the hearing to order. Mr. Keating, would you please read the notice?

MR. KEATING: Yes. Pursuant to notice dated November 15th, 1996, this time and place has been set for a hearing in Docket 961230-TP in re a petition by MCI Telecommunications Corporation for arbitration with United Telephone Company of Florida and Central Company of Florida concerning interconnection rates, terms and conditions pursuant to the Federal Telecommunications Act of 1996.

COMMISSIONER KIESLING: We'll take appearances starting with you, Mr. Fons.

MR. FONS: Good morning. I'm John P. Fons of the law firm of Ausley & McMullen, Post Office Box 391, Tallahassee, Florida, appearing on behalf of United Telephone Company of Florida and Central Telephone Company of Florida. Also appearing with me is J. Jeffry Wahlen of the same law firm.

MR. MELSON: Richard Melson of the law firm Hopping Green Sams & Smith, P.A., Post Office Box 6526, Tallahassee, appearing on behalf of MCI Telecommunications Corporation and MCImetro Access Transmission Services, Inc.

MS. McMILLIN: Martha McMillin, 780 Johnson Ferry Road, Suite 700, Atlanta, Georgia, 30342 appearing on behalf of MCI Telecommunications and MCImetro Access Transmission Services.

MR. KEATING: Cochran Keating and Martha Brown appearing on behalf of PSC Staff, 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399-0850.

COMMISSIONER KIESLING: Are there any preliminary matters we need to take up at this time?

MR. KEATING: Chairman Clark, I believe that the parties have a stipulation agreement that they would like the Commission to consider. It's as a preliminary matter.

In addition, Staff has several items that we would like the Commission to take official recognition of.

CHAIRMAN CLARK: Mr. Fons or Mr. Melson?

MR. FONS: Yes, Madam Chairman. The parties have entered into a stipulation and agreement which disposes of a majority of the issues in this proceeding. I believe attached to the prehearing order is a copy of the stipulation and agreement.

We can take you through the stipulation and agreement and basically indicate to you each of the items that have been disposed of by the parties, which

issues remain to be arbitrated, and which ones are not to be arbitrated but are to be decided in another manner by the Commission at the end of this proceeding; however, you would like to proceed.

CHAIRMAN CLARK: All right. Why don't you indicate which issues remain.

MR. FONS: The issues that remain will be found on Page 20 of the prehearing order. That will be under Section 4(a). The issues that remain to be arbitrated in their entirety are Issues 2, 3b, 3c and 9.

There are several issues that remain to be either resolved by negotiation and arbitration in view of the fact that they have not been completed by arbitration -- I mean, by negotiation as of this morning, they will be arbitrated as well. And that is part of Issues 7 and 8, which has now been collapsed into one issue, Issue 7, and parts of Issues 21 and 23.

MR. MELSON: And, Commissioner Clark, I believe the prehearing order has been revised and lists as issues only those things that the parties have not otherwise settled.

COMMISSIONER KIESLING: Let me ask a question of Staff. Is it appropriate at this time to

accept the stipulation?

MS. BROWN: Yes, Commissioner; Chairman Clark. I would think it would be.

COMMISSIONER DEASON: Madam Chairman, I'm prepared to move that we accept the stipulation.

COMMISSIONER KIESLING: Without objection, the stipulation is accepted.

MR. FONS: Thank you.

COMMISSIONER KIESLING: Anything else, Ms. Brown?

MS. BROWN: I'm sorry, Chairman Clark; would you repeat that?

COMMISSIONER KIESLING: What else do we need to take up preliminarily?

MR. KEATING: Staff has several items that we would like the Commission to take official recognition of and marked as an exhibit.

COMMISSIONER KIESLING: You have listed them on a document here?

MR. KEATING: Yes; orders for official recognition, Docket 961230-TP.

CHAIRMAN CLARK: And my list shows there are four FCC orders and seven FPSC orders.

MR. KEATING: Yes, you're correct. There is one other Florida PSC order on the reverse, so they're

totaling eight.

CHAIRMAN CLARK: You confused me when you put it on the back.

MR. KEATING: I'm sorry.

CHAIRMAN CLARK: Does everyone have a copy of this? We're going to mark this, the official recognition list, as Exhibit A. We'll admit it in the record without objection, and we will take official recognition of every order on that list.

MR. KEATING: Excuse me. Was that Exhibit A?

COMMISSIONER KIESLING: I'm sorry; Exhibit 1.

(Exhibit 1 marked for identification and received in evidence.)

MR. KEATING: Thank you. Staff has one other preliminary matter. Staff would ask that confidential Exhibits RGF-6, RGF-7 and RGF-8 be moved into the record and marked for identification.

CHAIRMAN CLARK: Are there any objections to these exhibits?

MR. MELSON: And, Commissioners, just so I understand. These are the exhibits that you do not have volumes of copies of?

MR. KEATING: That is correct.

MR. MELSON: MCI has got no objection.

CHAIRMAN CLARK: All right. We will list RGF-6 as Exhibit 2, RGF-7 as Exhibit 3, RGF-8 as Exhibit 4, and they will be admitted in the record without objection.

(Exhibit 2 marked for identification and received in evidence.)

(Exhibit 3 marked for identification and received in evidence.)

(Exhibit 4 marked for identification and received in evidence.)

MR. KEATING: Is there anything else for preliminary matters?

CHAIRMAN CLARK: Staff has none?

MR. KEATING: Staff has no more.

CHAIRMAN CLARK: Mr. Fons?

MR. FONS: No preliminary matters.

CHAIRMAN CLARK: Mr. Melson?

MR. MELSON: Commissioners, we had three exhibits to MCI's petition in this docket that the parties have agreed to stipulate into the record. Those were Petition Exhibit 1, Petition Exhibit 2 and Petition Exhibit 3. I'd like to have those marked, if I could, as Exhibits 5, 6 and 7 and I would move them into the record.

CHAIRMAN CLARK: They will be marked as Exhibit 5, 6 and 7 respectively, and they will be entered in the record without objection.

(Exhibit 5 marked for identification and received in evidence.)

(Exhibit 6 marked for identification and received in evidence.)

(Exhibit 7 marked for identification and received in evidence.)

MR. MELSON: MCI also has one witness, Mr. Price; a portion of Mr. Price's testimony the parties have agreed to stipulate into the record. Would this be the appropriate time to do that?

CHAIRMAN CLARK: Is he going to appear anyway?

MR. MELSON: No, he will not be here in person. And since a portion of his testimony deals with issues that have been withdrawn, there will be some substantial portions of the prefiled testimony to be stricken. I can walk through those with you.

CHAIRMAN CLARK: Mr. Melson, for some reason I don't have a copy of his testimony. Staff, do you have an extra copy?

All right, Mr. Melson; let's go ahead and stipulate that. I've got it, Staff. Thank you.

Let's go ahead and stipulate the appropriate portions into the record, if you will give them to me.

MR. MELSON: I have handed out to each of you this morning a revised copy of a chart that shows witness by witness what's in and what's out. The only change is there's one additional question for Mr. Cabe that will not go in from the list that was distributed earlier.

Mr. Price's testimony, I would offer his direct testimony. I would withdraw the testimony that appears at Page 4, Line 7 through Page 28, Line 25, and I would withdraw the testimony that appears at Page 34, Line 1 through Page 41, Line 13; and with those exceptions, I would move that testimony into the record as though read.

CHAIRMAN CLARK: All right. Without objection, the direct testimony of Mr. Price with those portions deleted will be inserted in the record as though read.

MR. MELSON: And just so I'm clear, I'm expecting, I guess that the court reporter will, where there's an entire page deleted, simply omit those from the transcript. From my point of view, there's no need to include them and to strike them through in any manner if there are entire pages that are gone.

CHAIRMAN CLARK: As I understand what they do, they insert what's supposed to be inserted and the rest of it doesn't appear, and it gets renumbered according to where it belongs in the transcript.

MR. MELSON: I would also offer Mr. Price's rebuttal testimony consisting of 16 pages. We would withdraw from that Page 1, Line 20 through Page 14, Line 6 and Page 15, Line 9 through Page 16, Line 13.

CHAIRMAN CLARK: All right. Mr. Price's rebuttal testimony with those deletions will be inserted in the record as though read.

MR. MELSON: And I would like to have, if I could, marked as Exhibit 8 the Exhibit DGP-1 that was attached to Mr. Price's direct testimony, and I would move that.

CHAIRMAN CLARK: DGP-1 will be marked as Exhibit 8 and admitted in the record without objection.

MR. MELSON: Thank you. MCI has got no further preliminary matters.

(Exhibit 8 marked for identification and received in evidence.)

DIRECT TESTIMONY OF DON PRICE

ON BEHALF OF MCI

MCI - UNITED/CENTEL ARBITRATION

October 11, 1996

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Don Price, and my business address is 701 Brazos, Suite 600, Austin, Texas, 78701.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by MCI Telecommunications Corporation in the Southern Region as Senior Regional Manager -- Competition Policy.

Q. HAVE YOU PREVIOUSLY TESTIFIED?

A. Yes, I have testified in proceedings before regulatory Commissions in a number of states. Provided as Exhibit 8 (DGP-1) to this testimony is a document listing the cases in which I have testified. Also included as part of the document is a summary of my academic and professional qualifications.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to: 1) briefly describe the history of the negotiations between MCI and Sprint; and 2) describe the ancillary arrangements that will be required to eliminate barriers to competition and identify the relevant rules ordered by the FCC in its rulemaking

implementing the local competition provisions of the Telecommunications Act of 1996.

NEGOTIATIONS

Q. PLEASE SUMMARIZE THE HISTORY OF MCI'S NEGOTIATIONS WITH SPRINT.

A. By letter dated May 26, 1996, a copy of which was attached as Attachment 1 to MCI's Petition for Arbitration in this docket, MCI filed its formal request for negotiations with Sprint.

The first negotiating meeting pursuant to Section 252 of the Telecommunications Act of 1996 ("Act," or "FTA") was held on May 13, 1996. Prior to that meeting, MCI submitted to Sprint a copy of Version 3.2 of a document entitled "MCI Requirements for Intercarrier Agreements" which set forth in detail MCI's requirements for interconnection and access, unbundling, resale, ancillary services and associated arrangements pursuant to the Act (the "Term Sheet"). Thereafter Sprint was provided with a reused Term Sheet, Version 4.0, as well as a draft contract which provided further detail on MCI's requirements. The Issues Matrix, Exhibit 3 to the Petition, sets forth the term sheet requirements. MCI and Sprint held additional meetings and conference calls from June through September. As a result of those meetings, the number of unresolved issues that the Commission must decide has been reduced significantly.

ANCILLARY ARRANGEMENTS AND SERVICES REQUIREMENTS

Overview

Q. PLEASE EXPLAIN THE IMPLICATIONS OF THE 1996 ACT AND THE RECENT FCC ORDERS AND RULES.

A. The Telecommunications Act of 1996 ("Act," or "FTA") promotes competition by directly removing, or mandating that the Federal Communications Commission (FCC) and state regulatory Commissions (Commissions) remove, significant impediments to efficient entry by imposing requirements such as access to unbundled network elements, interconnection, and resale of retail services. The Act also removes either directly or through the FCC and Commissions certain operational barriers to competition, for example, by mandating local number portability, dialing parity, and nondiscriminatory access to rights of way. Eliminating these barriers by devising ancillary arrangements and service requirements is essential if competition is to develop in the local exchange market. These operational arrangements will give new entrants the opportunity to provide to their customers high quality, robust local exchange services. Absent these ancillary arrangements, MCI will always be placed in the position of providing inferior local exchange services and those services, regardless of their prices, will likely never be competitive with those of the incumbent local exchange carriers (ILECs) such as Sprint.

The purpose of this portion of my testimony is to describe the ancillary arrangements and service requirements that will be required

to eliminate barriers to competition, to identify the relevant rules ordered by the FCC in its rulemakings implementing the local competition provisions of the FTA, and to identify the actions that the PSC must take to fully eliminate these barriers. The detailed interfaces and performance standards needed for these ancillary arrangements are presented in the draft contract.

Q. WHAT ARE THE KEY ANCILLARY ARRANGEMENTS ON WHICH YOUR TESTIMONY FOCUSES?

A. My testimony focuses on seven specific ancillary arrangements and services:

1. local number portability;
2. dialing parity;
3. directory assistance and operator services;
4. directory listing arrangements (both white and yellow pages);
5. access to 911 and E911 facilities and platforms;
6. access to poles, ducts, conduit, and rights-of-way; and
7. a bona fide request process for new unbundled network elements.

Local Number Portability

Q. WHAT IS THE SIGNIFICANCE OF LOCAL NUMBER PORTABILITY?

A. Both Congress and the FCC have recognized that local number portability -- the ability of end users to retain their telephone numbers when changing service providers -- is necessary to give customers real

choice in selecting their local telephone company. In the long distance market, the ability of customers to switch almost effortlessly between long distance carriers lies at the heart of effective competition. In the local market, without local number portability in some form, customers would not be able to switch easily or effortlessly between local carriers. Without number portability, customers would have to change their telephone number each time they changed their local carrier. Under those circumstances, many -- if not most -- customers would be inclined to just stay where they were. At the very least, without local number portability, there would not be the vibrant level of competition among carriers as we see in the long distance market.

Given the necessity of customers retaining their numbers as they switch between local carriers, Congress mandated that all local exchange carriers (LECs), incumbent and new entrant, provide local number portability in accordance with FCC regulations. (FTA, Section 251(b)(2).) The FCC recently specified when and how LECs are to provide number portability. (*In the Matter of Telephone Number Portability,* CC Docket No. 95-116, First Report and Order and Further Notice of Proposed Rulemaking, July 2, 1996, ("LNP Order").) Generally, all LECs are required to implement permanent number portability using a database solution consistent with the FCC's performance requirements. The FCC also specifies a timetable for such implementation.

In the period before the permanent local number portability is

implemented, the FCC has ordered LECs to implement interim local number portability measures. Specifically, the FCC has ordered all LECs to implement interim number portability arrangements using currently available methods -- namely RCF and DID -- until such time as permanent number portability is available. (LNP Order, Paragraph 110.) As the FCC's LNP Order indicates, these interim measures (RCF and DID) are currently available, technically feasible and can and should be implemented immediately in order to provide interim number portability.

Q. WHAT ARE THE IMPLICATIONS OF LONG TERM (OR TRUE) NUMBER PORTABILITY TO THESE ARBITRATION PROCEEDINGS?

A. Based on recent industry action as a result of this Commission's interest in number portability, the industry is moving in a direction that should provide number portability to customers in this state in accordance with the FCC's implementation schedule.

Q. WHAT ARE THE IMPLICATIONS OF PERMANENT NUMBER PORTABILITY TO THESE ARBITRATION PROCEEDINGS?

A. The issues involving implementation of permanent number portability go beyond any particular agreement between two parties and thus beyond the issues of this arbitration. Implementation of permanent number portability is an industry-wide effort, not merely an effort between MCI and any one ILEC. As a result, MCI does not specify, in this arbitration, issues relating to permanent number portability, but

rather, MCI assumes those issues will be dealt with elsewhere.

Q. WHAT RELIEF IS MCI SEEKING FROM THIS COMMISSION REGARDING INTERIM PORTABILITY?

A. MCI requests that this Commission take the following steps with regard to cost recovery and implementation of interim LNP measures:

(1) Require that costs of interim number portability measures be borne on a "competitively neutral" basis as required by the Act and the FCC. (LNP Order, Paragraph 126); and

(2) Require that access charges be billed appropriately for interexchange calls to numbers ported using interim number portability measures in accordance with the FCC's requirements.

Q. WHAT DO YOU MEAN BY USE OF THE PHRASE "COMPETITIVELY NEUTRAL" IN TERMS OF RECOVERY OF THE COST OF INTERIM NUMBER PORTABILITY MEASURES?

A. The FCC defined "competitively neutral" to mean that "the cost of number portability borne by each carrier does not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace." (LNP Order, Paragraph 131.) The FCC determined that "the incremental payment made by a new entrant for winning a customer that ports his [sic] number cannot put the new entrant at an appreciable cost disadvantage relative to any other carrier that could serve that customer." (LNP Order, Paragraph 132.) Thus, concluded

the FCC, any incremental payment by a new entrant would need to be "close to zero" in order to satisfy the "competitively neutral" standard. (LNP Order, Paragraph 133.)

Given all that, the FCC did specify four different cost recovery methods that would satisfy the "competitively neutral" standard. Under Method 1, the total incremental costs of interim number portability would be recovered from all LECs using an annual surcharge based on each carrier's number of active telephone numbers. Method 2 is similar, except that the surcharge would be based on each carrier's gross telecommunications revenues, net of payments to other carriers. Method 3 is similar to Method 2, using a uniform percentage surcharge. Finally, under Method 4, "each carrier would pay for its own costs" of implementing interim number portability. (LNP Order, Paragraph 136.)

It is important to note here that the FCC's LNP Order expressly rejects cost recovery mechanisms that force new entrants to pay the entire (or almost all) the incremental costs of interim number portability. The FCC found that forcing new entrants to bear all the incremental costs would contradict the principle that all carriers share such costs (since customers of carriers will benefit from even interim number portability through more vigorous competition), violate notions of competitive neutrality, and deter customers from switching to new entrants. (LNP Order, Paragraph 138) Thus, any ILEC attempts to impose upon MCI explicit rates for interim number portability that are not "close to zero" are not consistent with the FCC's LNP Order.

Of the four methods of cost recovery that the FCC did discuss as being "competitively neutral," MCI endorses Method 4. Under Method 4, there would be no explicit charge for interim number portability by any carrier. Rather, each carrier would simply absorb its costs of providing interim number portability. Method 4 has a number of distinct advantages over the other three methods discussed above. First, under Method 4, there is no need for any determination of the incremental cost of providing interim number portability. Under the other methods, the Commission will need to determine incremental costs. Determining incremental costs for RCF and DID is not a simple matter; it will involve cost studies and litigation. Given that these interim measures will be in place for only a relatively short period, it hardly seems worth the effort. Second, Method 4 eliminates the administrative burden of allocating costs among many providers. This allocation process involves, at a minimum, determining the allocation procedure and the percent allocators, billing all the affected carriers, collecting, and reconciling such billing. When each carrier is responsible for its own costs, there is no need for any such accounting process. In general, given the relatively small costs involved, the costs of administering any allocation process, and the relatively short period in which interim measures will be in effect, MCI does not see the benefit of cost collection and allocation under Methods 1, 2, or 3. Having each carrier bear its own costs is simple, fair, and efficient under these circumstances.

Q. WHAT IS THE ISSUE REGARDING THE TREATMENT OF ACCESS CHARGES IN THE CONTEXT OF INTERIM NUMBER PORTABILITY?

A. When a toll call is terminated to a ported number under interim number portability methods, two local exchange carriers are involved: the forwarding LEC and the terminating LEC. The forwarding LEC is the LEC that first gets the call from the (interLATA or intraLATA) toll provider. Since the number is ported, that LEC must then forward that call (using either RCF or DID methods) to the LEC that now provides service to that ported number. That second LEC will then terminate the call. The toll provider is responsible for paying access rates, but the issue is which LEC gets to bill that toll provider for what.

ILECs, who are more often than not going to be the forwarding LEC, often claim that they should bill (and retain) all switched access revenue. This is contrary to the FCC's LNP Order. The FCC directed that forwarding LECs and terminating LECs should "assess on IXCs [toll providers] charges for terminating access through meet point billing arrangements." (LNP Order, Paragraph 140.) As the FCC stated, "neither the forwarding carrier, nor the terminating carrier, provides all the facilities when a call is ported to the other carrier." Thus, according to the FCC, the LECs should share in the access revenues. (LNP Order, Paragraph 140.)

Under typical meet point billing arrangements, each LEC will issue a separate bill to the toll provider for that LEC's portion of access charges. MCI proposes the following mechanism for charging

toll providers when a call is terminated. The forwarding LEC would charge the toll provider for transport from the toll provider's point of presence (if an IXC, or the equivalent if an intraLATA toll provider) to the end office where the call terminates. The terminating LEC would charge the toll provider its switched access rates, minus any charge that the forwarding LEC has already charged. In this case, the toll provider does not pay more than the terminating carrier's switched access rate, and each LEC is able to bill for its share of service provided the IXC.

Since the terminating carrier will be "blind" to where toll providers' calls have come from in many instances, the terminating LEC will need certain information from the forwarding LEC in order to properly bill the toll provider. The FCC's order requires the forwarding carrier to "provide the terminating carrier with the necessary information [including any percent interstate usage data] to permit the terminating carrier to issue a bill." (LNP Order, Paragraph 140) MCI supports this provision. Other billing information may be necessary, but those issues can be resolved as part of any meet point billing arrangement.

Dialing Parity

Q. WHAT IS THE SIGNIFICANCE OF "DIALING PARITY" IN ESTABLISHING APPROPRIATE COMPETITIVE CONDITIONS?

A. The Act, in Section 251(b)(3), imposes on all LECs:

> The duty to provide dialing parity to competing providers

of telephone exchange service and telephone toll service, and the duty to permit all such providers to have nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays.

Dialing parity achieved through presubscription allows customers to preselect any provider of telephone exchange service or telephone toll service without having to dial extra digits to route a call to that carrier's network. In the *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Second Report and Order and Memorandum Opinion and Order, August 8, 1996 ("Second Order"), the FCC concluded at paragraph 4:

> ...that section 251(b)(3) requires LECs to provide dialing parity to providers of telephone exchange or toll service with respect to all telecommunications services that require dialing to route a call...

Thus, customers must be able to access directory and operator services and complete local and toll calls using the same dialing string, regardless of the selected local or toll provider.

Q. PLEASE EXPLAIN THE IMPLICATIONS OF THESE OBLIGATIONS ON THE IMPLEMENTATION AND TIMING OF DIALING PARITY.

A. The FCC ordered that the "full 2-PIC" method of presubscription is the minimum standard for implementing intraLATA equal access. (Second Order, Paragraph 49.) The full 2-PIC method allows customers to presubscribe interLATA calls to an interLATA carrier and presubscribe intraLATA toll calls to another carrier (including, but not limited to the customer's local exchange or interLATA carrier). Full 2-PIC software should be deployed on an end-office basis (rather than on a tandem basis) to minimize the post-dial delay and the dependence on a single end office that results from tandem deployment.

The Act and the FCC provide specific time lines for intraLATA equal access implementation. LECs that are not BOCs that provide interLATA services must implement dialing parity by August 8, 1997. BOCs in multi-LATA states that have not already ordered intraLATA dialing parity do not have to implement dialing parity until they are authorized to provide interLATA service. (Second Order, Paragraph 62.) BOCs in single-LATA states or in states that ordered implementation of dialing parity prior to December 15, 1995 should implement dialing parity immediately (or at the very least, in accordance with any schedules that are already in place).

For local dialing parity, the FCC requires:

> a LEC to permit telephone exchange service customers, within a defined local calling area, to dial the same number of digits to make a local telephone call, notwithstanding the identity of the customer's or the called party's local telephone service provider. (Second

Order, Paragraph 9.)

That is, customers of CLECs must not be required to dial additional digits to complete local calls. The FCC declined to prescribe national guidelines for LECs to accomplish local dialing parity.

The Commission should require that Sprint provide to MCI routine reporting on local and toll dialing patterns by switch type and end office and identify any scheduled changes.

Q. WHAT ARE THE IMPLICATIONS OF THE ACT AND THE FCC'S SECOND ORDER ON CARRIER SELECTION AND CUSTOMER EDUCATION?

A. Regarding consumer education and carrier selection, the FCC stated:

> The states may adopt balloting, consumer education and notification requirements for services originating within their states, that are not anticompetitive in effect. States may also adopt measures to prevent abuse of the customer notification and carrier selection process. (Second Order, Paragraph 80.)

Customer balloting and education are important issues. Where intraLATA dialing parity is implemented, reballoting of customers is unnecessary and may be confusing and costly. Indeed, in states where intraLATA dialing parity has been implemented, balloting has been restricted to those exchanges where interLATA equal access has not been implemented, a position MCI supports. Consumer education

and notification should present intraLATA toll in a competitively neutral manner, not linked to any particular provider. For example, the Kentucky Commission ordered that BellSouth should not be permitted to use phrases such as "BellSouth's calling zone" or "BellSouth's calling area" in marketing intraLATA services. (Case No. 95-396, In the Matter of AT&T Communications of the South Central States, Inc., MCI Telecommunications Corporation, Sprint Communications Company and WorldCom, Inc. d/b/a LDDS WorldCom v. BellSouth Telecommunications Inc., d/b/a South Central Bell Telephone Company. Order dated August 13, 1996 at 10.)

New customers who do not affirmatively choose a toll provider, after being given a reasonable opportunity to select a provider, may not be assigned automatically to the customer's dial-tone provider or the customer's preselected interLATA toll or interstate toll carrier. (Second Order, paragraph 81.)

Another critical element in the development of competition in the intraLATA toll market is the carrier selection and primary interexchange carrier ("PIC") administration process. (The term "PIC" was initially used to refer only to interLATA carriers, but is now also used to refer to intraLATA carriers.) The Commission should require Sprint to follow nondiscriminatory practices to ensure that it does not use its position as the dominant local carrier to achieve a superior competitive status in the intraLATA toll market as it is opened to competition. To the greatest extent possible, the ILECs' approach to intraLATA PIC administration should be competitively neutral, just it is

with respect to the interLATA PIC process today. For example, intraLATA PIC changes should be processed within the same time frame and in the same manner as the ILEC processes interLATA PIC changes today. In addition, the PIC change charge for intraLATA should be no greater than the charge for interLATA PIC changes. When a customer changes both interLATA and intraLATA PICs on the same service order, only one PIC change charge should be assessed.

To ensure competitive neutrality and prevent abuses of the carrier selection process, the Commission should require Sprint to observe the following procedures (largely developed in response to ILECs' anticompetitive practices in states that have ordered intraLATA presubscription). For example, Sprint should be required to inform customers when an intraLATA PIC selection is available, and Sprint's customer service representatives (CSRs) should be competitively neutral with respect to intraLATA toll providers in discussions with customers. Ideally, Sprint's CSRs should be divided into separate "general service" and "sales" groups to separate the local service provider functions from any intraLATA toll marketing function. If separate groups are not maintained, CSRs should not be allowed to market Sprint's intraLATA toll service when customers call to: change their intraLATA (or interLATA) PIC; initiate or transfer service; or change some aspect of their existing service. To help ensure nondiscriminatory PIC administration, Sprint CSRs should not be compensated based on intraLATA toll marketing. Sprint CSRs should not be allowed to answer questions about competitors' intraLATA toll

services, but should be able to do the following: 1) transfer the call to a different service representative who will respond to questions regarding intraLATA toll (provided that Sprint is willing to provide the same transfer service to other carriers); or 2) provide a separate telephone number that the customer can call for information about Sprint's intraLATA toll services (provided that Sprint is willing to provide telephone numbers for other carriers). In no case should Sprint service representatives use customer information to which competitors do not have access.

Q. HOW ARE THE IMPLEMENTATION COSTS ASSOCIATED WITH DIALING PARITY TO BE RECOVERED?

A. The FCC addressed recovery of dialing implementation parity costs in its Second Order at Paragraph 92:

> We conclude that, in order to ensure that dialing parity is implemented in a pro-competitive manner, national rules are needed for the recovery of dialing parity costs. We further conclude that these costs should be recovered in the same manner as the costs of interim number portability...

The FCC noted that the rules adopted in the LNP Order apply only to currently-available (as opposed to long-term) number portability mechanisms. The FCC stated:

> In the case of dialing parity, there is a similar distinction

between currently-available solutions (i.e., full 2-PIC presubscription), and long-term solutions (i.e., multi-PIC or smart-PIC methodologies). Like number portability, we may need to revisit the issue of an appropriate cost recovery standard once other presubscription technologies become available on a nationwide basis. (Second Order, Paragraph 93.)

The FCC further commented that:

> In the Number Portability Order, we concluded that costs for number portability should be recovered on a competitively neutral basis. We also concluded that any cost recovery mechanism should: (1) not give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber; and (2) not have a disparate effect on the ability of competing service providers to earn a normal rate of return. (Second Order, Paragraph 94, footnotes omitted.)

The FCC rejected as not competitively neutral the argument that only new entrants should pay dialing parity costs. Also, the FCC agreed that LECs may not recover from other carriers under a dialing parity cost recovery mechanism any network upgrade costs not related to the provision of dialing parity.

As discussed above with respect to interim number portability, each carrier should absorb its costs of providing the interim functionality ordered -- *in this case, full 2-PIC*. This approach provides each carrier with the incentive to minimize implementation costs. In addition, this approach is fair and minimizes administration costs. The approach is fair because MCI's subsidiary, MCImetro, is bearing the cost of implementing full 2-PIC. It is administratively simple because any approach other than providers bearing their own costs would result either in entrants "paying twice" (once for its own implementation costs, and once as a share of Sprint's costs), or would require that MCImetro establish a cost recovery element, which *would likely mirror Sprint's and other entrants' cost recovery* elements.

The FCC's requirement for nondiscriminatory access requires Sprint to allow competing providers access that is at least equal in quality to that it provides itself. Thus, call set-up and call processing times for MCI should be equivalent to that for Sprint and any dialing delays must be no longer than those experienced by Sprint's customers for processing calls on the Sprint network for identical calls or call types.

Q. WHAT ARE THE ISSUES PERTAINING TO DIALING PARITY TO BE RESOLVED IN THIS PROCEEDING?

A. MCI requests that the Commission ensure that only costs incremental and directly related to dialing parity are recovered by allowing dialing

parity implementation costs to be subject to investigation and review.

Directory Assistance and Operator Services

Q. YOU MENTIONED DIRECTORY ASSISTANCE AND OPERATOR SERVICES AT THE OUTSET OF YOUR TESTIMONY AS ANCILLARY SERVICES THAT ARE CRITICAL. WHAT IS THE COMPETITIVE SIGNIFICANCE OF THESE SERVICES?

A. Access to directory assistance (DA) and access to operator services (OS) are essential components of basic telephone service. New entrants such as MCI must be able to provide DA and OS functionalities that are comparable in quality to those provided by Sprint. MCI customers must be able to reach these DA and OS functionalities using the same dialing string as Sprint's customers and with no unreasonable dialing delays, as described in the dialing parity section above. These services are extremely important to consumers and also represent important business opportunities -- for example, five billion DA calls are made in the United States each year. Consumers will benefit if they have competitive options for DA and OS services.

Q. WHAT IS REQUIRED BY THE TELECOMMUNICATIONS ACT AND THE FCC'S RULES?

A. Both Congress and the FCC explicitly recognized the importance of nondiscriminatory access to DA and OS functionalities. Section 271(c)(2)(B)(vii) of the Act requires BOCs, as a condition for entering

the in-region long distance market, to provide:

> Nondiscriminatory access to...
>
> (II) directory assistance services to allow the other carrier's customers to obtain numbers; and
>
> (III) operator call completion services.

The FCC recently concluded that:

> the term "nondiscriminatory access" means that a LEC that provides telephone numbers, operator services, directory assistance, and/or directory listings ("providing LEC") must permit competing providers to have access to those services that is at least equal in quality to the access that the LEC provides to itself. (Second Order, Paragraph 101.)

It also stated:

> We conclude that section 251(b)(3) requires LECs to share subscriber listing information with their competitors, in "readily accessible" tape or electronic formats, and that such data be provided in a timely fashion upon request. (Second Order, Paragraph 141.)

To meet the requirements of the Act and the FCC Second Order, Sprint must give MCI the options of reselling its DA and OS services

and of purchasing relevant unbundled elements.

Q. WHAT SPECIFICALLY IS MCI SEEKING WITH REGARDS TO DIRECTORY ASSISTANCE?

A. At least some ILECs already make their directory assistance network elements available to other ILECs at several levels of unbundling, all of which should be available to MCI as well since clearly it has already been demonstrated to be technically feasible to do so. The three levels of access are: (1) access to the entire DA platform, including systems and operators, with MCI not having to perform any specific functions; (2) read-only access to the DA database and sub-databases, with MCI performing all the DA functions except for the maintenance of the database; and (3) access to the data resident within the database via the exchange of tapes, with MCI (or a third party) performing all the DA functions including the maintenance of the database.

Q. DO YOU HAVE EXAMPLES OF MCI'S CONCERN IN THIS REGARD?

A. Yes. Several ILECs, including Bell Atlantic, have refused to provide MCI with the last level of access (i.e., access to the data resident within the database, via exchange of tapes), even though such access is provided by other ILECs. For example, Bell South currently provides this level of access throughout its serving area in its tariffed Directory Assistance Database Service (DADS). Access to the data would be provided in Pacific Bell's draft tariff "Directory Assistance Listing

Service," and in Ameritech's draft license agreement. Moreover, many ILECs exchange data with neighboring ILECs and provide their DA data to neighboring ILECs for access in the neighboring ILEC's own DA system. In California, Pacific Bell and GTE share a database that is administered by a third party, with each carrier having the same access. Pacific Bell and GTE also exchange DA data and store the combined data in their own respective systems. Thus, the Bell Atlantic refusal is without merit and is not in compliance with either the FCC's Second Order or the Telecommunications Act. Likewise, this Commission should reject any such position that Sprint may take.

Some ILECs at least imply that the refusal to provide access to the unbundled DA data is consistent with protecting the integrity of the database. But this is not a legitimate argument. Once MCI has the data, if it were to pollute that data it would harm its own database, not the ILEC's database. Surely, if the integrity of the database were at risk, Bell South and the other ILECs who currently make the data available would not do so. Moreover, the FCC has provided guidance on maintaining database integrity, stating that:

> Competitors who access such LEC databases will be held to the same standards as the database owner, in terms of the types of information they can legally release to directory assistance callers. The LEC that owns the database can take the necessary safeguards to protect the integrity of its database and any proprietary information, or

carriers can agree that such databases will be administered by a third party. (Second Order, Paragraph 144.)

The DA database should be sent to MCI by the ILEC electronically, since ILECs already exchange DA data in that fashion. Updates should be provided on a daily basis. Of course, MCI agrees that it, and all other competitive local exchange carriers, must provide the same DA information, and provide the same timely updates, to other carriers as the ILEC provides. Since all customers benefit from DA services based on a complete and accurate database, and each carrier has the same responsibility for maintaining up-to-date information on subscribers, carriers should not be allowed to charge for providing updates.

There is one related area of concern that the Commission must address. The DA databases for the large ILECs currently include data for the subscribers of many small independent telephone companies located adjacent to the large ILECs to create a complete DA database to serve the entire overlapping service area. Some ILECs have refused to make the data on the independent telephone companies' subscribers available to MCI. As a result, MCI is not able to construct a complete DA database. In order to ensure nondiscriminatory access on the same basis as the ILEC, the Commission must require that such data be made available, subject to all necessary protections. The State of Hawaii recognized this requirement, stating:

All telecommunications carriers, including the incumbent carrier, shall provide customer list information gathered in their capacity as providers of telecommunications service on a timely and unbundled basis, under nondiscriminatory and reasonable rates, terms, and conditions, to any telecommunications carrier or person upon request for the purpose of providing directory assistance or publishing telephone directories in any format.

Section 252(d)(1) of the Act states that prices of unbundled network elements must be based on cost. The FCC recently adopted a pricing method based on forward-looking costs. (*Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, issued August 8, 1996 ("251 Order"), Paragraph 620.) The prices for each level of access should reflect only the direct economic costs associated with such access to each unbundled element.

Q. WHAT SPECIFICALLY IS MCI SEEKING WITH REGARDS TO OPERATOR SERVICES?

A. Rules are needed to implement the Act's requirements for nondiscriminatory access to operator services functionalities as well as its requirements for dialing parity. Today, intraLATA operator calls -- both "O minus" calls where the caller only dials the "O", and "O

plus" calls where the caller dials "O" plus a telephone number -- are automatically routed to the ILEC. When an MCI customer -- whether served by MCI-provided loops, by unbundled Sprint loops, or by MCI resale of ILEC service -- dials "O", Sprint should be required to send that call to the MCI platform and MCI operator for MCI to handle.

Q. WHAT OTHER ISSUES PERTAINING TO DIRECTORY ASSISTANCE AND OPERATOR SERVICES SHOULD THE COMMISSION TAKE INTO CONSIDERATION?

A. MCI customers that obtain MCI's DA and OS services via an ILEC's DA or OS platform should be provided services in conjunction with MCI's brand name. Paragraph 971 of the FCC's 251 Order specifically directs ILECs to provide branding as part of their wholesale DA/OS offerings to other carriers:

> Brand identification is critical to reseller attempts to compete with incumbent LECs and will minimize customer confusion....We therefore conclude that where operator, call completion, or directory assistance service is part of the service or service package an incumbent LEC offers for resale, failure by an incumbent LEC to comply with reseller branding requests presumptively constitutes an unreasonable restriction on resale.

Where an ILEC claims that it is not able to provide MCI branded DA or

OS services, then to meet the nondiscriminatory requirements of the Act and the FCC's 251 Order, the ILEC should be required to "unbrand" its DA or OS services. In paragraph 971, the FCC explicitly leaves the issue of unbranding to the state Commissions.

Q. WHAT ARE THE ISSUES PERTAINING TO DIRECTORY ASSISTANCE AND OPERATOR SERVICES TO BE RESOLVED IN THIS PROCEEDING?

A. There are six issues that must be resolved. They are:

(1) The Commission should require Sprint to maintain complete DA databases that include information on the customers of all local exchange carriers. Each local exchange carrier has the responsibility to provide at no charge updated information for that database and Sprint must not charge another LEC for including the information on that LEC's subscribers in the DA database;

(2) The Commission should require Sprint to provide MCI access to DA functionalities in all of the following forms (as a resale service or as unbundled elements at a minimum of three levels of access or any other technically feasible form): (1) access to the entire DA platform, including systems and operators, with MCI not having to perform any specific functions; (2) read-only access to the DA database and sub-databases, with MCI performing all the DA functions except for the maintenance of the database; and (3) access to the data resident within the

database, via the exchange of tapes, with MCI (or a third party) performing all the DA functions;

(3) Use of the DA database should be held to the same standard as currently employed by Sprint, in terms of the type of information revealed to DA callers, with the necessary safeguards and protections of the database;

(4) Prices for unbundled DA elements must be based on direct economic costs, measured using the TELRIC methodology described the FCC in its 251 Order;

(5) When an MCI customer -- whether served by MCI-provided loops, by unbundled Sprint loops, or by MCI resale of ILEC service -- dials "O", 411, 555-1212, or NPA-555-1212, the ILEC should be required to send that call to the MCI platform and MCI operator for MCI to handle; and

(6) The Commission should require Sprint to provide MCI branded DA and OS services. If Sprint is not able to provide such branded services, then Sprint must remove its brand from the DA and OS services it provides itself.

The draft contract includes specific arrangements related to operational implementation for DA/OS.

Directory Listings

Q. TURNING TO THE FOURTH OF THE ANCILLARY SERVICES THAT YOU LISTED ABOVE, WHAT PRINCIPLES REGARDING THE PROVISION OF DIRECTORY LISTINGS ARE CONTAINED IN THE TELECOMMUNICATIONS ACT AND THE FCC'S ORDERS AND RULES?

A. Section 271(c)(2)(B)(viii) of the Act obligates Bell Operating Companies choosing to pursue the provision of in-region long distance services to provide:

> White pages directory listings for customers of the other [interconnecting] carrier's telephone exchange service.

Section 251(b)(3) of the Act imposes on all telecommunications carriers:

> The duty...to permit all such [telephone exchange service and telephone toll service] providers to have nondiscriminatory access to...operator services, directory assistance, and directory listing, with no unreasonable dialing delays.

At paragraphs 141 and 142 of the FCC's Second Order, the FCC stated:

> We conclude that section 251(b)(3) requires LECs to share subscriber listing information with their

> competitors, in "readily accessible" tape or electronic formats, and that such data be provided in a timely fashion upon request.
>
> Under the general definition of "nondiscriminatory access," competing providers must be able to obtain at least the same quality of access to these services that a LEC itself enjoys. Merely offering directory assistance and directory listing services for resale or purchase would not, in and of itself, satisfy this requirement, if the LEC, for example, only permits a "degraded" level of access to directory assistance and directory listings. (Footnote omitted.)

Q. WHAT ARE THE COMPETITIVE IMPLICATIONS OF THESE PASSAGES?

A. Customers want to have a single, complete white pages directory that lists all subscribers in their geographic area. Since customers will not know the local carrier of the party for whom they are seeking information, it would be very inefficient to have to cull through multiple carrier-specific directories. Thus access to a single complete white pages listing is of equal value to the customers of all carriers. At the same time, it would not be efficient for each local exchange carrier to publish its own white pages directory. In most situations, it also would not be efficient for each local service provider to publish

its own yellow pages directory. Since economies of scale will likely lead to Sprint being the sole publisher of the white pages directory and the yellow pages directory, to meet the requirements of the Act and the FCC's Second Order, methods and procedures need to be developed to treat Sprint and the CLECs -- and their customers -- the same way with respect to the information provided, rates, and sharing of costs.

All relevant CLEC customer information must be incorporated in (or, in the case of "non-published" numbers, excluded from) the white pages directory listings at no charge to the CLEC. Data should be passed from the CLEC to Sprint using the directory assistance process.

To the extent that Sprint provides pertinent business information in the information pages of its white pages directory (e.g., rates, calling areas, repair and maintenance information, etc.), the same information also must be provided for the CLECs at no charge.

It is traditional for Sprint to give each business customer a line listing in its yellow pages directory even if the business does not purchase a display (or even a bold-faced) listing. If CLEC business customers were treated differently from Sprint's customers, then Sprint could use its position as the sole provider of a yellow pages directory to place the CLECs at a competitive disadvantage in the business market. CLEC business customers therefore must be treated the same way as Sprint business customers with respect to free line listings in its yellow pages directory.

The customer information -- and particularly business customer information -- that the CLEC provides to Sprint to construct directory assistance and white and yellow pages is valuable to Sprint. The information allows Sprint to create complete white and yellow pages directories and provides leads for it to sell yellow pages advertising. As a fair exchange for this valuable information, Sprint should be required to provide a published white pages directory for each CLEC subscriber. Sprint should be required to deliver the white pages directories to CLEC subscribers as well as to its own subscribers, with the CLEC charged only its pro rata portion of the TELRIC costs of producing and distributing the directories. Since a "sweep" of all dwellings is less costly than leaving directories only with subscribers, if Sprint were to refuse to perform the distribution, it would be artificially imposing costs on the CLECs. A CLEC should be allowed, however, to negotiate with Sprint for an alternative arrangement -- for example, delivery of all directories to the CLEC, if the CLEC wishes to place its own cover on the directories or for payment to Sprint to put a CLEC cover on the directories intended for the CLEC's customers and performing the distribution (which then could not be a "sweep").

Yellow pages advertising should be billed separately by the publisher, and not combined on the local telephone bill as if it were a telecommunications service.

Q. WHAT ARE THE ISSUES PERTAINING TO DIRECTORY LISTINGS TO BE RESOLVED IN THIS PROCEEDING?

A. There are four such issues. They are:

(1) The Commission should require that all relevant MCI local subscriber information be incorporated in (or, in the case of "non-published" numbers, excluded from) the white pages directory listings at no charge to MCI;

(2) The Commission should require that if Sprint provides pertinent business information in the Customer Guide (information) pages of its white pages directory (e.g., rates, calling areas, sales, service, repair and billing information, etc.), the same information also must be provided for MCI at no charge;

(3) Sprint should provide a published white pages directory for each MCI local subscriber. Sprint should deliver the white pages directories to MCI subscribers as well as to its own subscribers, with the TELRIC of production and distribution assigned to all local exchange carriers on a pro rata basis (although MCI should be allowed to negotiate with Sprint for an alternative arrangement -- for example, delivery of the directories to MCI rather than to subscribers, if MCI wishes to place its own cover on the directories); and

(4) MCI business customers must be treated the same way as Sprint business customers with respect to free Service Required Listings in Sprint's yellow pages directory.

911 and E911 Platforms

Q. YOU MENTIONED THE NEED FOR MCI TO HAVE ACCESS TO 911 AND E911 ABOVE. WHAT ARE THE PUBLIC POLICY REASONS UNDERLYING THAT CLAIM?

A. There is no question that the public safety requires that 911 (and E911) service be provided at the highest possible level of quality. To achieve such quality, MCI and Sprint must ensure the seamless interconnection of their networks for the delivery of 911 services. Such interconnection impacts both carriers' networks and their operations support systems.

Q. WHAT ARE THE NETWORK REQUIREMENTS OF INTERCONNECTION FOR 911/E911?

A. Seamless interfaces are required to support 911 service between the incumbent's and MCI's networks. One crucial network requirement is dedicated trunk facilities for routing 911 calls from MCI's switch to the incumbent's selective router. An additional interface requirement is that the incumbent provide selective routing of E-911 calls received from MCI's switch. The incumbent is obligated to provide such trunking and routing, upon request by MCI, pursuant to the Act.

Sprint must establish terms and conditions that permit 911 calls placed by MCI's customers to reach the Public Safety Answering Point (PSAP) in a manner equal to 911 calls originated on the ILEC's network. To ensure that such interconnection is of high quality, MCI also requires that Sprint provide industry-standard signaling on the

trunks used to interconnect with the 911 selective router. Signaling is how information on call processing is passed between various network elements to permit calls to be established and disconnected. Sprint must adhere to industry signaling standards in support of 911 calls. This is consistent with Sprint's duty under Section 251(c)(2)(C) to provide interconnection that is at least equal in quality to that which it provides to itself. Sprint also must provide MCI with reference and routing data to assist in the configuration of the interconnected dedicated 911 trunks and to ensure that 911 calls are correctly routed.

Sprint must afford to MCI's 911 trunks the same level of priority service restoration that it affords its own 911 trunks. Sprint also should notify MCI at least 48 hours prior to any scheduled outages that would affect 911 service, and communicate immediately with MCI in the case of an unscheduled outage. If Sprint does not provide equal restoration priority to MCI, and if outage notices are not provided, MCI will not have interconnection that is "at least comparable" to the access Sprint provides to itself. It also is essential that information be exchanged on network testing and outages to permit all network providers to respond to such events appropriately.

Q. WHAT ARE THE NECESSARY DATABASE ARRANGEMENTS TO SUPPORT THE INTERCONNECTION OF NETWORKS FOR 911 AND E911?

A. A new entrant must have access to the databases necessary to input

and maintain customer address and phone numbers in the proper format. For example, the Automatic Location Identification (ALI) is a proprietary database managed by the incumbent, but should be treated as the property of any participating new entrant. ILECs possess or control a number of systems that are used to screen and edit data for inclusion in the 911 ALI database. In order to achieve consistency in street addresses, customers' data are edited against a database referred to as the master street address guide ("MSAG"). New entrants should be permitted access to the MSAG, any mechanized systems used in the editing process, and any other systems and processes used in populating the 911 ALI database.

Access to the 911 ALI databases must be available on conditions that are comparable to the Sprint's access. Because Sprint has electronic interfaces to such systems, providing anything less to MCI would violate the statutory requirement that interconnection be provided at quality levels at least equal to that the incumbent provides to itself. In its recent 251 Order, at Paragraph 517, the FCC determined that ILECs must provide competitive local exchange providers such as MCI access to such operations support systems on a nondiscriminatory basis.

Access to update these databases to facilitate end-user service number portability also must be provided by the ILEC. This would apply to both the interim and long-term portability environment. The ILEC must also provide a means for validating MCI customer information in the 911 databases.

Q. WHAT ARE THE ISSUES PERTAINING TO 911 SERVICE TO BE RESOLVED IN THIS PROCEEDING?

A. There are three such issues, and they are:

(1) Sprint should provide the appropriate trunking, signaling and routing of 911 and E911 calls from MCI switches;

(2) Sprint should be required to provide MCI's 911 trunks the same level of priority service restoration that it affords its own 911 trunks. Sprint should be required to provide at least 48 hours notice of any scheduled outages that would affect 911 service, and immediate notice of any unscheduled outage; and

(3) MCI should be allowed access to the MSAG, any mechanized systems used in the editing process, and any other systems and processes used in populating the 911 ALI database. This must include the ability to update the databases for end-user service portability.

Rights-of-Way

Q. WHAT OBLIGATIONS ARE IMPOSED BY THE 1996 ACT REGARDING ACCESS TO RIGHTS-OF-WAY BY Sprint?

A. The Act imposes on carriers (at section 251(b)(4)):

> The duty to afford access to the poles, ducts, conduits, and rights-of-way of such carrier to competing providers of telecommunications services on rates, terms and

conditions that are consistent with section 224.

In its 251 *Order*, the FCC set a general nondiscrimination program that granted the state Commissions significant discretion:

> [I]n furtherance of our original mandate to institute an expeditious procedure for determining just and reasonable pole attachment rates with a minimum of administrative costs and consistent with fair and efficient regulation, we adopt herein a program for nondiscriminatory access to poles, ducts, conduits and rights-of-way. (Footnote omitted.) (Paragraph 1122.)

Key portions of the nondiscrimination program include:

> A utility is able to take the steps necessary to expand capacity if its own needs require such expansion. The principle of nondiscrimination established by section 224(f)(1) requires that it do likewise for telecommunications carriers and cable operators. In addition, we note that section 224(f)(1) mandates access not only to physical utility facilities (i.e., poles, ducts, and conduit), but also to the rights-of-way held by the utility. The lack of capacity on a particular facility does not necessarily mean there is no capacity in the underlying right-of-way that the utility controls. For these reasons, we agree with the commenters who argue

that a lack of capacity on a particular facility does not automatically entitle a utility to deny a request for access. Since the modification costs will be borne only by the parties directly benefitting from the modification, neither the utility nor its ratepayers will be harmed, despite the assertions of utilities to the contrary. (Footnotes omitted.) (Paragraph 1162.)

We interpret sections 224(f)(1) and (f)(2) to require utilities to take all reasonable steps to accommodate requests for access in these situations. Before denying access based on a lack of capacity, a utility must explore potential accommodations in good faith with the party seeking access. (Paragraph 1163.)

We will not require telecommunications providers or cable operators seeking access to exhaust any possibility of leasing capacity from other providers, such as through a resale agreement, before requesting a modification to expand capacity. (Paragraph 1164.)

Thus, although the FCC chose not to prescribe the circumstances under which a utility must replace or expand an existing facility and when it is reasonable for a utility to deny a request for access, it did require utilities to take all reasonable steps to accommodate requests

for access.

Where there are costs associated with freeing capacity (e.g., by reconfiguring placement of cables on poles to allow for more cables), the FCC requires modification costs be paid only by entities for whose benefit the modifications are made, with multiple parties paying proportionate shares based on the ratio of new space occupied by each party to the total amount of new space occupied by all parties joining in the modification. (251 Order, Paragraph 1213.)

To ensure that CLECs are able to obtain nondiscriminatory access to poles, conduits and rights-of-way in a timely manner requires that ILECs provide certain information to new entrants. In addition, ILECs should not interfere with or attempt to delay the granting of permits for MCI's use of public rights-of-way or access to private premises from property owners.

Q. WHAT TERMS AND CONDITIONS SHOULD THIS COMMISSION REQUIRE AS A RESULT OF THIS ARBITRATION PROCEEDING?

A. To ensure that CLECs are able to obtain nondiscriminatory access to poles, conduits and rights-of-way in a timely manner requires that Sprint provide certain information to new entrants. In addition, Sprint should not interfere with or attempt to delay the granting of permits for MCI's use of public rights-of-way or access to private premises from property owners.

The Commission should require Sprint to provide information on the location and availability of access to poles, conduits and rights-of-

way within 20 business days of MCI's request. Sprint must not be permitted to provide information to itself or its affiliates sooner than it provides the information to other telecommunications carriers. For 90 days after a request, Sprint should be required to reserve poles, conduits and rights-of-way for MCI's use. MCI should be permitted six months to begin attachment or installation of its facilities to poles, conduits and rights-of-way or request Sprint to begin make ready or other construction activities.

Finally, compensation for shared use of Sprint-owned or -controlled poles, ducts, and conduit should be based on the pro-rata portion of the TELRIC of the facility.

Additional arrangements related to access to rights of way are included in the draft contract.

Bona Fide Request Process for Further Unbundling

Q. WHAT IS THE NEED FOR A PROCESS BY WHICH MCI CAN REQUEST FURTHER UNBUNDLING OF THE SprintT NETWORK?

A. Networks are dynamic structures. ILECs are -- hopefully -- constantly improving them, adding new features and functions. In addition, as local competition expands and as MCI gains more experience, MCI may find uses for other network functions that currently exist, but for which MCI has not specifically asked to be unbundled now (for example, loop feeder plant). Consequently, after this particular arbitration is completed, MCI will need to be able to request and gain access to network elements other than what will be specifically

unbundled as a result of this process.

The FCC addresses the substantive issues relating to requests for unbundled network elements (251 *Order* at Paragraphs 283, 284, 285), but does not address the process by which further unbundling can be accomplished. Process on this issue is important. Significant delays in making unbundled elements available may delay the advent of effective competition or may put new entrants at a significant competitive disadvantage in relation to the ILEC. For example, once an ILEC has installed a new function in its network that has not been previously unbundled, competitive pressures will make it imperative for the new entrants to have unbundled access to that network element, else the new entrants will be left behind. Moreover, as demonstrated by past practice in many cases, ILECs will take every opportunity to delay the availability of unbundled elements, given that they have no incentive to make available the unbundled elements that new entrants need. This incentive will only be magnified for RBOCs once they are permitted to re-enter the interexchange market.

Consequently, a process must be established for further unbundling and that process must be expedited. By expedited, MCI means that the process must have specific time frames and a definite end point. The process should be initiated with a bona fide request from the new entrant. The bona fide request should contain information sufficient to permit Sprint to identify the unbundled element that MCI seeks and identify the means of accessing that element. Sprint then should have ten days to respond to this

request. This relatively short period is sufficient given that the bona fide request process requires MCI to provide identifying information and that the major issue with regard to unbundled elements is whether it is technically feasible to unbundle the element.

If Sprint's response is anything but an unequivocal "yes," with a proposed price that is in conformance with the FCC's pricing principles for unbundled elements (or otherwise acceptable to MCI by voluntary agreement), MCI must have recourse to the Commission for resolution of this issue. Resolution of this issue should include price -- if only a proxy price until cost studies are approved in conformance with TELRIC principles, and means of accessing the requested unbundled network element.

Again, timing is critical. The pace of competition will require speedy resolution of this issue. Because the issue will be very narrow and well focused, the Commission should be able to resolve the dispute in relatively short order. In light of this, MCI recommends that the Commission resolve the issue within 30 days of any request for Commission intervention.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, at this time.

REBUTTAL TESTIMONY OF DON PRICE

ON BEHALF OF

MCI TELECOMMUNICATIONS CORPORATION AND

MCImetro ACCESS TRANSMISSION SERVICES, INC.

DOCKET No. 961230-TP

November 19, 1996

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Don Price, and my business address is 701 Brazos, Suite 600, Austin, Texas, 78701.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by MCI Telecommunications Corporation in the Southern Region as Senior Regional Manager -- Competition Policy.

Q. ARE YOU THE SAME DON PRICE WHO HAS PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of this testimony is to rebut certain statements and allegations made in the testimony of Sprint/United witness Michael Hunsucker regarding miscellaneous contract provisions and certain ancillary services.

MISCELLANEOUS PROVISIONS

General Contract Language

Q. MR. HUNSUCKER ATTACHED TO HIS TESTIMONY AS EXHIBIT MRH-3 SPRINT/UNITED'S PROPOSED CONTRACT. WHAT ARE YOUR GENERAL OBSERVATIONS REGARDING THAT PROPOSED CONTRACT?

A. I am not commenting on the specifics contained in the Sprint/United proposed contract. However, I would generally note that the contract has significantly less detail than is needed to establish a workable business relationship between Sprint/United and MCI. The Sprint/United proposed contract contains little more than general principles. If such a contract was all that existed to govern the companies' business relationship, the companies would need to continually negotiate the numerous details that are needed on a day-to-day basis for the conduct of business. Further, the absence of such detail in a "bare bones" contract would create a significantly greater likelihood that disputes would arise, some of which ultimately could be brought back to this Commission for resolution.

I would refer the Commission to MCI's contract form, which was attached as an exhibit to MCI's Petition, for appropriate contract language and level of detail.

"Most Favored Nations" Conditions

Q. Have you read Mr. Hunsucker's testimony regarding Sprint's proposed

"most favored nations" language?

A. Yes, and I have also reviewed the specific language set forth at Exhibit MRH - 4.

Q. What is MCI's reaction to Sprint's proposed language?

A. There does not appear to be a substantive disagreement between the companies on this issue. The companies should be able to negotiate mutually acceptable contract language without requiring a Commission ruling on the point.

Performance Metrics and Service Standards

Q. DO MCI AND SPRINT APPEAR TO BE IN AGREEMENT ON PERFORMANCE METRICS AND SERVICE STANDARDS?

A. We appear to agree on a conceptual level, but not on the details. For example, Mr. Hunsucker states that Sprint will provide MCI with the same quality of service that Sprint provides to its own customers. (Page 27) He does not, however, address the specific performance measurements and monitoring procedures necessary in a carrier-carrier or carrier-reseller situation. Appendix VIII to the MCImetro/ILEC Interconnection Agreement attached as Exhibit 2 to MCI's Petition contains numerous provisions relating to measuring and monitoring quality of service. These provisions are tailored to meet the requirements in a carrier-carrier environment. They reflect the appropriate level of detail that must be included in the final arbitrated agreement in order to ensure fair competition.

Limitation of Liability

Q. SECTION XXVI OF EXHIBIT MRH-3 TO MR. HUNSUCKER'S TESTIMONY CONTAINS SPRINT'S PROPOSED LIMITATION OF LIABILITY PROVISION. IS THIS AN APPROPRIATE CONTRACTUAL PROVISION?

A. No, it is not. Under this language, Sprint would be held completely harmless from any consequential damages or lost profits suffered by MCI in the event that Sprint fails to meet its obligations under the agreement.

The language in Section 12 of the MCImetro/ILEC Interconnection Agreement attached as Exhibit 2 to MCI's Petition is a much more appropriate liability provision. Under MCI's language, each party is responsible for the natural consequences of its actions in the event that it repeatedly breaches one or more of its material obligations under the agreement. Without this type of provision, Sprint could repeatedly breach the agreement -- for example by repeatedly missing due dates for interconnection facilities by a significant amount -- with absolutely no liability for the damages suffered by MCI.

Q. WHY IS IT IMPORTANT TO INCLUDE THIS TYPE OF PROVISION FOR CONSEQUENTIAL DAMAGES?

A. There are two reasons. First, Sprint is the sole source of supply for the interconnection services, unbundled network elements, and resold services that MCI will purchase. If Sprint fails to meet its obligations

under the agreement, MCI cannot turn to an alternate supplier to mitigate its losses. Second, because Sprint is both a supplier and a competitor, any lost profits to MCI will typically represent retained profits to Sprint. For example, if Sprint repeatedly misses due dates for turning up resold services, MCI will lose revenues from the resale customers, while Sprint will continue to receive revenues from those customers. Similarly, if Sprint fails to provide interconnection service that meets the standards in the agreement, that failure will impair the quality of service that MCI is able to provide to its customers.

In this situation, MCI's reputation as a quality provider will be damaged, and Sprint will benefit from retaining or regaining customers who otherwise would have chosen MCI. Unless Sprint is held responsible for the foreseeable consequences of its actions, it will have no financial incentive to live up to its obligations under the agreement.

Sub-Loop Unbundling

Q. WHAT IS YOUR REACTION TO MR. HUNSUCKER'S REPRESENTATION AT PAGE 12 THAT LOOP DISTRIBUTION SHOULD NOT BE ARBITRATED IN THIS PROCEEDING?

A. Mr. Hunsucker has misrepresented MCI's position with respect to loop distribution. MCI continues to urge this Commission to find that it is technically feasible for Sprint/United to offer loop distribution. It is true that MCI removed the loop distribution issue from its negotiations with Sprint/United. MCI's purpose in so doing, however,

was to facilitate discussion of other issues on which progress could be made, because there did not appear to be any hope of bringing the loop distribution issue to closure. It is my understanding that we made it quite clear that we would seek a ruling from the Commission on the question of technical feasibility, as such a ruling was necessary for there to be any possibility of fruitful negotiations on the loop distribution issue.

Q. DO YOU AGREE WITH MR. HUNSUCKER THAT A "BFR" PROCESS IS APPROPRIATE FOR UNBUNDLED LOOP DISTRIBUTION?

A. No. MCI is presenting in this proceeding sufficient facts upon which the Commission can render a decision on the question of technical feasibility. Such a decision would place the appropriate obligation on Sprint/United to make loop distribution available on an unbundled basis to MCI. If in a particular location, Sprint/United is unable to provide loop distribution to MCI, it could render that objection at the time a request is made by MCI for that location, and the Commission could, if necessary, deal with that on an exception basis.

ANCILLARY SERVICES/ARRANGEMENTS

Branding

Q. WHAT ARE YOUR CONCERNS WITH SPRINT/UNITED'S POSITION REGARDING THE ISSUE OF BRANDING?

A. Mr. Hunsucker seems to confuse the issue of technical feasibility with

the current capability for Sprint to provide branding for operator services and directory assistance. Technical feasibility is a concept quite different from Sprint/United's current capability to offer a feature. For example, Sprint/United may not have equipped all of its Central Offices with ISDN capability, but that does not mean that it is not technically feasible for Sprint/United to provide ISDN. The interpretation of "technical feasibility" suggested by Mr. Hunsucker is contrary to the FCC's 251 Order, which states as follows.

> *Technically feasible.* Interconnection, access to unbundled network elements, collocation, and other methods of achieving interconnection or access to unbundled network elements at a point in the network shall be deemed technically feasible absent technical or operational concerns that prevent the fulfillment of a request by a telecommunications carrier for such interconnection, access, or methods. A determination of technical feasibility does not include consideration of economic, accounting, billing, space, or site concerns, except that space and site concerns may be considered in circumstances where there is no possibility of expanding the space available. The fact that an incumbent LEC must modify its facilities or equipment to respond to such request does not determine whether satisfying such request is technically feasible. An incumbent LEC that claims that it cannot satisfy such request because of adverse network reliability impacts must prove to

the state commission by clear and convincing evidence that such interconnection, access, or methods would result in specific and significant adverse network reliability impacts. (Part 51.5 of the FCC's Rules, "Terms and definitions." (Emphasis added.) This portion of the FCC's rules are not subject to the stay.)

Because of the blurring of the two concepts in Mr. Hunsucker's testimony, I cannot agree with his discussion at page 24, lines 13 through 21 because his use of the phrase "where technically feasible" appears to refer to Sprint/United's current capability to provide a requested feature or function. As the passage in the FCC's Rules states, if it is possible for Sprint/United to modify its network to provide the requested capability, then it is "technically feasible." The Commission should hold Sprint/United to the required standard for demonstration of technical feasibility, and not accept the looser standard urged by Mr. Hunsucker.

Q. WHAT COMMENTS DO YOU HAVE REGARDING MR. HUNSUCKER'S TESTIMONY AT THE BOTTOM OF PAGE 24 AND THE TOP OF PAGE 25 REGARDING INTERACTION BETWEEN SPRINT/UNITED'S EMPLOYEES AND MCI CUSTOMERS?

A. MCI agrees with Sprint/United' position. Of course, as with all such issues, the "devil is in the details" and mutually agreeable contract language must be drafted.

Local Dialing Parity

Q. AT PAGE 41 OF HIS TESTIMONY, MR. HUNSUCKER STATES THAT SPRINT AGREES TO PROVIDE DIALING PARITY. DOES MCI HAVE ANY QUARREL WITH SPRINT/UNITED'S POSITION ON THIS ISSUE?

A. No. It is my understanding that Sprint/United is migrating a few remaining central offices away from 6-1-1 dialing to reach the Sprint/United repair center. In place of 6-1-1, Sprint/United will utilize 1-800 (or 1-888) toll free numbers. Such an arrangement is acceptable to MCI as it will permit MCI to offer a dialing arrangement to its customers for access to repair that is at parity with what Sprint/United offers.

Numbering Resources

Q. MR. HUNSUCKER STATES THAT SPRINT/UNITED IS NOT THE CENTRAL OFFICE CODE ADMINISTRATOR AND THUS DOES NOT MAKE CENTRAL OFFICE CODES AVAILABLE TO LOCAL SERVICE PROVIDERS WITHIN FLORIDA. IN LIGHT OF THIS, DOES MCI REQUIRE ARBITRATION ON THE ISSUE OF CENTRAL OFFICE CODE ASSIGNMENTS IN THIS PROCEEDING?

A. No, MCI agrees that this issue does not affect Sprint/United for the reason stated by Mr. Hunsucker.

Interim Number Portability Issues

Q. AT PAGES 28-29 OF HIS TESTIMONY, MR. HUNSUCKER STATES THAT THE ISSUE OF RECOVERY OF COSTS OF INTERIM NUMBER

PORTABILITY MEASURES SHOULD NOT BE SUBJECT TO ARBITRATION. DO YOU AGREE?

A. I strongly disagree. Since May 13, 1996 when the interim agreement was signed, the FCC issued its LNP Order (cited in my direct testimony filed August 22, 1996). As I noted in my direct testimony, the LNP Order -- which for the record is ***not*** affected by the Eighth Circuit Court's Stay Order -- provides that cost recovery mechanisms for interim number portability measures should not afford one service provider an appreciable incremental cost advantage over another service provider. The only thing in this regard MCI is seeking in this proceeding is to obtain an agreement in which the monthly recurring rate for interim number portability measures is in compliance with the FCC's order. As I noted in my direct testimony, the simplest approach is to simply require all carriers to absorb their own costs of implementing interim number portability measures, given the relatively short time frame during which such measures will be used.

MCI recognizes that the Commission has established a proceeding to deal with this issue. Because this issue is unresolved between MCI and Sprint/United however, it should be resolved in this proceeding.

Q. BECAUSE OTHER ENTITIES ARE NOT PARTIES TO THIS PROCEEDING, WOULD A COMMISSION RESOLUTION OF THE ISSUE IN THIS PROCEEDING POSSIBLY DISCRIMINATE AGAINST OTHERS WHO OBTAIN ILNP MEASURES?

A. No. Other entities purchasing interim number portability measures from Sprint/United should be able to modify their agreements to take advantage of the compensation mechanism adopted by the Commission in this proceeding, pursuant to language in those agreements and if they choose to do so. The ability of affected entities to modify their agreements removes the possibility that such entities would suffer competitive harm if the issue is resolved in this proceeding as requested by MCI.

Rights-of-Way

Q. WHAT ARE YOUR COMMENTS REGARDING MR. HUNSUCKER'S TESTIMONY AT PAGES 38-39 REGARDING RIGHTS-OF-WAY, CONDUITS, AND POLE ATTACHMENTS?

A. My only comment is in regards to Mr. Hunsucker's assertion at 39, lines 8 through 17 regarding the circumstances under which Sprint/United should be permitted to charge the MCI for facility upgrades. Sprint/United's position on this matter is contrary to the Act and not supportable as a matter of sound public policy.

The FCC's rules on this point, which are not subject to the Eighth Circuit Court's Stay Order, are very clear. At §1.1416(b), the rules state in pertinent part that:

> The costs of modifying a facility shall be borne by all parties that obtain access to the facility as a result of the modification and by all parties that directly benefit from the modification. Each party

described in the preceding sentence shall share proportionately in the cost of the modification. A party with a preexisting attachment to the modified facility shall be deemed to directly benefit from a modification if, after receiving notification of such modification as provided in subpart J of this part, it adds to or modifies its attachment. Notwithstanding the foregoing, a party with a preexisting attachment to a pole, conduit, duct or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is necessitated solely as a result of an additional attachment or the modification of an existing attachment sought by another party. (emphasis added)

The primary focus of the language of Sect. 224 of the Act was on ensuring that all telecommunications and video services providers have nondiscriminatory access to incumbent LECs' rights-of-way, poles, ducts, and conduits in order to encourage competition in the provision of such services. Thus, the Sprint/United position would grant it a preferred status with regard to use of such assets and is inconsistent with the overall public policy objective of encouraging competition. Furthermore, Mr. Hunsucker's position ignores the fact that, until such time as Sprint/United determines that a facilities

expansion is required, it will have been receiving rents from all other entities using the facility(ies). Sprint/United should not be permitted to charge entities with pre-existing attachment for later upgrade of the facilities unless, as set forth in the FCC's rules, the entities have opted to "add to or modify" their attachment(s). If Mr. Hunsucker's recommendation is approved by the Commission, a competitive advantage to Sprint/United would result by allowing it to shift to its competitors costs of an expansion only it requires.

Q. DO YOU HAVE A RESPONSE TO MR. HUNSUCKER'S DISCUSSION OF MCI'S NEED FOR ACCESS TO SPRINT/UNITED'S ENGINEERING RECORDS?

A. Yes. It appears that there is some confusion as to what MCI is seeking. I cannot envision why MCI would require access to Sprint/United's engineering records when unbundled network elements are at issue. Rather, the need for access to such records would arise as a result of MCI's seeking to obtain access to Sprint/United's poles, conduit, ducts, and/or rights-or-way. MCI would renew its request that Sprint/United be required to furnish access to engineering diagrams and records, as set forth in MCI's proposed contract.

In those instances, MCI recognizes that proprietary information can sometimes be included in the company's engineering records or drawings. It is my understanding that MCI's needs can frequently be met without requiring access to records or drawing containing

proprietary information, although in some instances that will not be the case. MCI recognizes Sprint/United's right to protect its proprietary information, and MCI is willing to negotiate an appropriate nondisclosure agreement to cover circumstances when MCI personnel would require access to proprietary information to determine location and availability of rights-of-way, conduits, and poles.

Bona Fide Request Process

Q. DO YOU HAVE COMMENTS REGARDING MR. HUNSUCKER'S PROPOSED "BONA FIDE REQUEST" PROCESS?

A. Yes. I have two concerns with Mr. Hunsucker's discussion on this point. First, as I noted above with regard to his recommendation on branding of operator services and directory assistance, Mr. Hunsucker has blurred the distinction between technical feasibility and Sprint/United's current capability. Unless the appropriate definition of technical feasibility is required by the Commission, Sprint/United will be able to use its proposed bona fide request process for anticompetitive purposes.

Second, the timetable set forth in Mr. Hunsucker's Exhibit MRH-5 is too lengthy and would frustrate the ability of CLECs such as MCI to offer new services and/or features to our customers in a timely manner. Examination of Mr. Hunsucker's proposal reveals that Sprint/United will have five full months after a request for a new unbundled element is received before it must provide information necessary for the CLEC to move forward. That means that such

issues as where the requested network element is available, what rate(s) Sprint/United proposes, and its proposed installation intervals, will not be known to the CLEC for a number of months after it initiates its request. Although there may be certain instances where such a time frame is necessary, that should be the exception rather than the rule. Thus, I would respectfully reurge the timetable set forth in my direct testimony for resolution of bona fide requests.

Q. DO YOU AGREE WITH MR. HUNSUCKER THAT A "BFR" PROCESS IS APPROPRIATE FOR BRANDING OF OPERATOR SERVICES AND DIRECTORY ASSISTANCE?

A. No. MCI is presenting in this proceeding sufficient facts upon which the Commission can render a decision on the question of technical feasibility. Such a decision would place the appropriate obligation on Sprint/United to brand operator services and directory assistance for MCI. If in a particular location, Sprint/United is unable to provide such branding to MCI, it could render that objection at the time a request is made by MCI for that location, and the Commission could, if necessary, deal with that on an exception basis.

Directories

Q. DO YOU AGREE WITH MR. HUNSUCKER'S POSITION REGARDING MCI'S ABILITY TO CUSTOMIZE THE DIRECTORIES IT FURNISHES TO ITS CUSTOMERS WITH AN MCI COVER?

A. No. Because Sprint/United is affiliated with the publisher(s) of its

directories, it is in a unique position to use that business arrangement to deny equivalent treatment in the provision of directories by MCI to its customers. The Commission should ensure that Sprint/United not be permitted to abuse its unique position in an anticompetitive manner, by ordering that Sprint/United cannot provide customer listings to its publishers unless those entities agree to permit MCI to customize the covers it puts on directories intended for its customers. At a minimum, the Commission should require that Sprint/United be neutral as to any business arrangements between its affiliated directory publishers and MCI.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, at this time.

CHAIRMAN CLARK: For my clarification, what witnesses will be appearing today and what is the order they will be taken up in?

MR. MELSON: I believe that's as set out in the prehearing order. For MCI it will be Mr. Murphy, Mr. Cabe, Mr. Darnell and Mr. Wood. There was prefiled testimony of Mr. Martinez -- I never can remember how to pronounce it, Martinez -- that has been withdrawn in its entirety.

COMMISSIONER KIESLING: And for Sprint it's Hunsucker, Farrar and Dunbar?

MR. FONS: Yes; Farrar and Dunbar.

CHAIRMAN CLARK: Okay. Are there any other preliminary matters we need to take up at this time?

MR. KEATING: Staff has no other preliminary matters.

CHAIRMAN CLARK: If everyone who is going to be a witness in this case would please stand and raise your right hand, I will swear you all in at the same time.

(Witnesses collectively sworn.)

CHAIRMAN CLARK: Mr. Murphy; is he the first witness?

MS. McMILLIN: Yes, Mr. Murphy is MCI's first witness.

JERRY R. MURPHY

was called as a witness on behalf of MCI and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. McMILLIN:

Q Please state your name and business address for the record.

A My name is Jerry Murphy, and my business address is 2250 Lakeside Boulevard, Richardson, Texas.

Q By whom are you employed and in what capacity?

A I'm employed by MCI Telecommunications in the capacity of director of network implementation for the eastern region.

Q Have you prefiled in this docket direct testimony dated October 11, 1996 and consisting of 43 pages, and rebuttal testimony dated November 19, 1996 and consisting of eight pages?

A Yes.

Q Are there any portions of the direct testimony that you are withdrawing?

A Yes, there is. We're withdrawing on the direct testimony Page 6, Line 1 to Page 14, Line 5; Page 19, Line 1 to Page 41, Line 18; and Page 42, Line 11 to Page 43, Line 10.

Q Are there any portions of the rebuttal testimony that you're withdrawing?

A Yes, there are. We're withdrawing from Page 1, Line 20 to Page 4, Line 20, and then, lastly, from Page 5, Line 21 to Page 6, Line 14.

Q Do you have any changes or corrections to the remaining portions of your testimony?

A The only change I have is on my direct testimony, the first page, Line 11 and 12, my title should change to read "director of network implementation, eastern region."

Q With that correction, if I were to ask you the same questions today, would your answers be the same?

A Yes, they would.

MS. McMILLIN: Madam Chairman, at this time we would ask that the direct and rebuttal testimony of Mr. Murphy be inserted into the record as though read.

CHAIRMAN CLARK: The direct and rebuttal testimony of Mr. Murphy as revised will be inserted in the record as though read.

DIRECT TESTIMONY OF JERRY W. MURPHY

ON BEHALF OF MCI

MCI - UNITED/CENTEL ARBITRATION

OCTOBER 11, 1996

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jerry W. Murphy, and my business address is 2250 Lakeside Boulevard, Richardson, Texas 75082.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by MCI Telecommunications Corporation as Director of ~~Technical Planning and Development~~ Network Implementation of Southeastern Region for MCImetro.

Q. PLEASE GIVE A BRIEF DESCRIPTION OF YOUR BACKGROUND AND WORK EXPERIENCE.

A. I am a graduate of the University of Notre Dame. I have attended several continuing education programs in engineering, telecommunications and business. I joined MCI in 1980 as an engineer and contributed toward the rapid expansion of the MCI long distance network resulting from the opening of that market to competition. Thereafter, for a period of four years, I was instrumental in the successful design, implementation and launch of MCI into the competitive local access business. Prior to my current assignment, I was Director of Engineering and Construction for MCImetro and, its predecessor, Access Transmission Services, Inc. I have held my current position for two years. My responsibilities include the planning and design for all transmission systems in new and existing cities nationwide in support of

MCI's entry into the local services market. In addition I manage departments responsible for the acquisition of rights-of-way, municiple, franchise and real estate agreements necessary for the deployment of the MCImetro network.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address the following topics: (1) ***the MCI Local Network:*** an overview of the local network that MCI is installing; (2) ***the Interconnection of Networks:*** the steps necessary to interconnect MCI's local network with the ILEC network so that all forms of traffic can be exchanged between the networks; (3) ***Access to Unbundled Network Elements:*** a description of unbundled network elements that MCI is requesting and how MCI proposes to gain access to these unbundled elements; and (4) ***Collocation:*** a description of collocation arrangements required under the Act and under the FCC's recent order. I will also discuss related issues such as ordering and provisioning that play a critical role in the success or failure of interconnection and use of unbundled elements.

Network unbundling will allow MCI and other competitive local exchange companies ('CLECs") to provide a wide variety of new products to a broad array of customers using portions of the ubiquitous ILEC network combined with differentiating network elements provided by the CLEC. Interconnection, effective network unbundling, and procedures to make collocation viable are essential in order for competition to become a reality in the local exchange market.

MCI'S LOCAL NETWORK

Q. PLEASE DESCRIBE THE LOCAL NETWORK MCI IS INSTALLING.

A. To understand MCI's need for interconnection, access to unbundled elements and

collocation, it is necessary to understand MCI's local network and how MCI plans to use that network to provide local service. MCImetro is MCI's subsidiary in charge of constructing local networks and, from a technical perspective, interconnecting MCI's local network with the ILEC's network. To understand MCImetro's network, how it has evolved, and how it will continue to evolve, it is necessary to understand the history of MCImetro. MCImetro began its corporate life as a special access provider, also known as a competitive access provider (CAP). Special access providers provide high capacity network facilities to mid and large business customers for the purpose of originating and terminating interexchange traffic directly to or from the interexchange carrier. As such, MCImetro's original network consisted of a limited set of fiber optic rings in several urban areas.

In January 1994, MCI made the decision to expand MCImetro to offer switched local services. Beginning with the fiber rings, MCI embarked on a capital construction program with two major goals. First, MCImetro had to expand its existing fiber ring facilities to reach more customer buildings and construct new rings in other urban areas. Second, MCImetro had to install local switches to provide switched services. (MCI's interexchange switches were not suitable for handling local traffic without significant modifications.) Over the last two and one half years, MCI has invested over $700 million in its local network. As a result, as of the date of my testimony, MCI's local networks, nationwide, consist of approximately 2,600 route miles of fiber rings and 13 switches.

While MCI's local network is growing, it is still small compared to the ubiquitous reach of the ILECs' networks. While MCImetro has been building local networks for just over 2 years, the ILECs have been building local networks for over one hundred years. While MCI's local network passes by several thousand

buildings in mostly urban areas, the ILECs' networks reach into practically every building and home in the country. While MCImetro has installed 13 local switches, the ILECs collectively own over 23,000 local switches. It is not an overstatement to say that the ILECs' networks are practically everywhere.

Q. WHAT IS MCI'S GOAL IN PROVIDING LOCAL SERVICE?

A. MCI's goal is to reach a broad array of customers, business and residential, to provide local services that are consistent across geographic areas and are differentiated from today's monopoly offerings. Thus, while total service resale is part of MCI's local efforts and will in some circumstances be MCI's vehicle for initial entry into the local market, resale alone will not allow MCI to differentiate its service or develop consistent services across geographic areas. In order to reach that goal, and enable true competition in the local services market, MCI and other competitive local exchange carriers (CLECs) must be able to create and offer their own services. The primary means of achieving this is through deployment of MCI's own local facilities. This has been the path that MCI has chosen to date. However, as mentioned earlier, MCI's significant investment in switching and network construction over the past two plus years has only allowed it to reach a maximum of several thousand buildings, mostly in urban areas. Network unbundling, discussed in more detail below, will allow MCI and other CLECs to provide a broad array of new products to a much larger group of customers using portions of the ubiquitous ILEC network combined with differentiating network elements provided by the CLEC. Without effective ILEC network unbundling, real competition will not become a reality.

One further item is worth noting. MCI's local network has a substantially

different architecture than that of the ILEC. ILEC networks, developed over many decades, employ an architecture characterized by a large number of switches within a hierarchical system, with relatively short subscriber loops. By contrast, MCI's local network employs state-of-the-art equipment and design principals based on the technology available today, particularly optical fiber rings, that does not require the deployment of as many switches. In general, there is a trade-off between the number of switches and the length of the local loop. The fewer the switches deployed in any given territory, the longer the loop length necessary to serve customers, and vice versa. In any given service territory, MCI will have deployed fewer switches than the ILEC. In general, at least for now, MCI's switches all serve areas at least equal in size if not greater than the serving area of the ILEC tandem. For example, in Baltimore, Bell Atlantic uses two access tandems to serve the Baltimore local calling area. MCI uses just one. Thus, MCI's one switch in Baltimore serves an area actually greater than the service area of either of BA's tandems. Similarly, in New York, NYNEX has six tandems access that serve the New York Metropolitan LATA; initially, MCI has deployed one switch to serve the same geography. This last point becomes critical later in my testimony as I discuss reciprocal compensation arrangements for transport and termination of traffic.

In sum, MCI's recent but very real experience in deploying local services gives it a unique perspective on what it takes to make competition a reality. Our "hands on" experience allows us to be very clear on what will be required in the areas of implementing network interconnection and gaining access to unbundled ILEC network elements.

INTERCONNECTION OF NETWORKS

Q. WHAT IS INTERCONNECTION AND WHY IS IT IMPORTANT?

A. Building a local network means nothing unless that network can be seamlessly interconnected with the ILEC's network and with the networks of other telecommunications carriers. In the context of my testimony, interconnection means the linking of networks. The point at which MCI's local network physically connects to the ILEC's network is called the interconnection point (IP), or sometimes the point of interconnection (POI). This definition of "interconnection" is consistent with how the FCC defined that term at Paragraph 176 of the First Report and Order in CC Docket No. 96-98, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 (the "Order"). Connection of unbundled elements ("access to unbundled elements") to the MCI network is discussed later in my testimony.

The IP plays a critical role in overall interconnection. From a financial perspective, the IP represents the "financial demarcation" -- the point where MCI's network ends and the ILEC's "transport and termination" charges begin. From an engineering perspective, there are variety of things that must happen at the IP to make interconnection seamless and complete. In my testimony, I focus on the engineering aspects, but obviously the financial ramifications have a significant impact on how we interconnect and exchange traffic with the ILEC. Therefore, there also is a later discussion about the financial implications of interconnection.

Q. WHAT IS REQUIRED TO PHYSICALLY LINK MCI's LOCAL NETWORK WITH THE NETWORKS OF INCUMBENT LOCAL EXCHANGE CARRIERS?

A. From MCI's viewpoint, physical linking of networks is not a daunting engineering

task. Carriers have interconnected networks -- local network to local network and interexchange network to local network -- for years. Thus, physical linking is neither new nor overly complicated.

Physical linking of networks involves the following steps:

- The physical connection of MCI's facilities to the ILEC facilities at the interconnection point (IP).
- The establishment of trunking arrangements for the exchange of local traffic, for the exchange of intraLATA and interLATA toll traffic, for "operator-to-operator" calls, for directory assistance calls, for 911/E911 calls, and for "transit" traffic.
- The physical connection of MCI's signaling network and the ILEC's signaling network so that signaling information can be exchanged.

I discuss these steps in more detail below.

1. Interconnection Point (IP) for exchange of traffic

Q. WHAT ISSUES ARE INVOLVED IN THE ESTABLISHMENT OF AN INTERCONNECTION POINT (IP)?

A. From an engineering perspective, establishment of the IP includes determination of where the IP is located, the method of interconnection, and the types of facilities that will be used to carry traffic back and forth over the IP.

a. Location of the IP

Q. PLEASE DISCUSS THE LOCATION OF THE IP.

A. As the Act and the FCC Order states, the ILEC must provide interconnection "at any technically feasible point within the ILEC's network." (Final Rules, Section 51.305(a)(2)) Thus, MCI, as the new entrant, is permitted to select the IP from any point in the ILEC's network where it is technically feasible to physically interconnect networks and exchange traffic. (Order, at Paragraph 220, footnote 464) Specifically, MCI must have the ability to select the location or locations of any IP so long as it is within the LATA that contains the end offices for which traffic will be exchanged. Moreover, as the FCC Order notes, "technically feasible" under this definition "refers solely to technical or operational concerns, rather than economic, space, or site considerations." Thus, so long as the ILEC can -- from a technical perspective -- take the traffic from the IP and terminate it to any particular end office, then that IP is technically feasible.

I raise this because of a special problem MCI has faced in New York with NYTEL. NYTEL has attempted to make MCI establish IPs at each of their access tandems in the LATA that covers the Metropolitan New York City area. There are six such access tandems in that LATA. Clearly, for a new entrant such as MCI, physically building out facilities to establish an IP at each of those access tandems would be a time consuming and expensive proposition, delaying the ability of MCI to offer service in that LATA and making it more expensive than necessary to offer that service.

The "technical feasibility" portion of the FCC Order precludes NYTEL from insisting on this build out, and here's why. MCI already has established an IP with NYTEL in Manhattan. Because of NYTEL's extensive transport network in the LATA, it is technically feasible for NYTEL to take traffic from that IP and transport it to any end office in the LATA, regardless of which access tandem that end office

subtends. Therefore, that IP can -- and at MCI's discretion should -- serve as the IP for the entire LATA. I also note that Ameritech and MFS have agreed to a single IP per LATA.

Naturally, however, any decision on where an IP is located or whether to use more than one IP will have an impact on the transport portion of any transport and termination compensation paid to the ILEC. If MCI chooses to have only one IP in the LATA, for example, the transport charges that MCI must pay as part of "transport and termination" for local calls will reflect the increased distance that calls must travel from the IP to the particular end office where they terminate. This will be discussed in more detail later in my testimony where I address the financial implications of network interconnection.

At section 51.305(a)(2) of its Rules, the FCC identifies the minimum set of places where the ILECs must provide interconnection, but explicitly states in that section that interconnection must be provided at "at any technically feasible point within the incumbent LEC's network." Thus, the FCC explicitly did not limit potential IPs to these locations (Order at paragraphs 209, 549, 550, 551, 552, 553, and 54). It is technically feasible to establish an IP at most points on the ILEC network where ILEC facilities meet each other or meet other facilities (either the ILEC's or some other entity's facilities).

In engineering terms, facilities are always connected with each other at what are called "cross-connect points." Cross-connect points, as the name implies, are places in any network where one facility can be connected to another, either manually or electronically. With a manual cross connect, two facilities are physically connected by means of a third piece called a "jumper." Simply put: Wire A comes in to a point on the cross to connect apparatus, and Wire B comes in

on another point. Then a jumper is used connect Wire A to Wire B. A main distribution frame (MDF) or any similar "patch panel" is an example of a manual cross-connect device. With an electronic cross-connect, there is no jumper wire, rather, the "jumper connection" is performed electronically. A DCS (digital cross connect system) is an example of an electronic cross connect.

IP's do not have to be limited to residing at an ILEC tandem or end office switch. The FCC's Order specifies some potential interconnection points; each one of those is a "cross-connect point," as I have defined that term, in either a tandem switch or an end office switch. There are other cross-connect points in the ILEC network, however. For example, MCI's switches are generally located in commercial office buildings. For any particular MCI switch, the ILEC will also have network facilities into that building that end at what is called a "telco closet." A telco closet in this sense includes -- or can technically support -- a cross-connect device. Thus, an ILEC telco closet in a commercial building can also serve as an IP. In fact, MCI interconnects with Ameritech at such telco closets now in Detroit. Thus, this type of IP is certainly technically feasible.

b. Methods of Interconnection

Q. PLEASE DISCUSS THE VARIOUS METHODS OF INTERCONNECTION.

A. The FCC permits any method of interconnection that is technically feasible. (Order at paragraph 549) In its Order, the FCC discusses three specific methods of interconnection: physical collocation, virtual collocation, or meet point. (Order at paragraph 553) Collocation, either virtual or physical, is well known from a technical perspective and is discussed later in my testimony.

Meet point arrangements are also well known. Under a typical "meet

point" arrangement, MCI and the ILEC would each "build out" to a meet point. Under this type of arrangement the official "IP" -- as I have been using that term -- is the point where the ILEC build out connects to the rest of the ILEC network. The "limited build out" to the meet point is the financial responsibility of each party and is part of what the FCC calls the "reasonable accommodation of interconnection." (Order at paragraph 553)

A variation of this is what I refer to as "mid-span meet." Under this arrangement, MCI and the ILEC would jointly provision the fiber optic facilities that connect the two networks and share the financial and other responsibilities (as detailed below) for that facility. In this situation, the facilities do not actually join at a "cross-connect point" but are spliced together. This is essentially the method of interconnection that MFS and Ameritech agreed to. Thus, it is certainly technically feasible.

c. Types of facilities at the IP

Q. WHAT TYPES OF FACILITIES CAN BE USED AT THE IP?

A. Having determined the location of the IP, it is necessary, from an engineering perspective to determine the types of facilities that will be used to interconnect. The types of facilities that are used to link the networks, regardless of the types of traffic carried, are well known both to MCI and to the ILECs. Network interconnection may occur at light (fiber) level, or at DS3, DS1, or voice-grade levels.

2. Trunking and Interconnection of Signaling Networks

Q. WHAT ARRANGEMENTS SHOULD BE PROVIDED FOR THE TRUNKING OF

TRAFFIC?

A. Once networks are physically connected via the facilities and arrangements as described above, then it is necessary from an engineering perspective to partition those facilities into various types of trunk groups required to carry the different types of traffic that are necessary for complete interconnection. Based on our experience, MCI believes that traffic should be segregated as follows:

- a separate trunk group that carries local traffic, non-equal access intraLATA interexchange traffic, and local transit traffic to other LECs.
- a separate trunk group for equal access interLATA or intraLATA interexchange traffic that transits the ILEC network.
- separate trunks connecting MCI's switch to each 911/E911 tandem.
- a separate trunk group connecting MCI's switch to the ILEC's operator service center. This permits MCI's operators to talk to the ILEC's operators. Operator-to-operator connection is critical to ensure that operator assisted emergency calls are handled correctly and to ensure that one carrier's customer can receive busy line verification or busy line interrupt if the other end user is a customer of a different LEC.
- a separate trunk group connecting MCI's switch to the ILEC's directory assistance center where MCI is purchasing the ILEC's unbundled directory assistance service.

With regard to the first requested trunk group, the Commission should note that there is no technical requirement to segregate local and intraLATA interexchange traffic on separate trunk groups. Indeed, it is often more efficient to "pack" a trunk with both local traffic and interexchange traffic. Because these types of traffic are "rated" differently, however, the receiving carrier would either have to discern

between types itself or have to rely on reporting by the sending carrier, via a "percent local usage" (PLU) or similar reporting mechanism. The trunk segregation detailed above is an initial architecture that meets MCI's immediate needs for interconnection. As MCI's network evolves, and as we seek to provide new services, there may be a requirement for a further or different combination of traffic types. For example, it may be efficient for MCI to aggregate local and interexchange traffic on a single trunk. It is incumbent upon the ILEC to prove that a request for a revised traffic combination is technically infeasible.

Q. WHAT SIGNALLING SHOULD BE PROVIDED WITH RESPECT TO THESE TRUNK GROUPS?

A. The trunk groups that connect the networks will require specific signaling characteristics. The trunks that carry local and interexchange traffic are generally similar to the industry standard Feature Group D trunks with CCS7 signaling. MCI requires CCS7 signaling on all trunks used to pass local and interexchange traffic. The specific details about the interconnection of signaling networks is discussed later in my testimony where I address access to unbundled elements. MCI also requires that the trunks used to carry local and interexchange traffic are configured with B8ZS Extended Superframe (ESF). B8ZS ESF is required to support the transmission of 64Kbps ("Clear Channel") traffic between the networks of ILECs and CLECs. Without Clear Channel transmission, subscribers of ILECs and CLECs would not be able to terminate various types of switched data traffic, including some ISDN applications.

Trunks can also be either one-way or two-way. Generally, two-way trunking is more efficient than one-way trunking for traffic that flows in both

directions (for example, local and interexchange traffic), since, with two-way trunking, fewer trunks are needed to establish the interconnection than are needed when ILECs insist only on one-way trunking. The FCC has recognized the benefits of two-way trunking by ordering ILECs to make them available upon a CLEC's request (Order, Paragraph 219).

Q. YOU PREVIOUSLY MENTIONED THAT THE FINANCIAL IMPLICATIONS OF INTERCONNECTION MUST BE CONSIDERED. WHAT ARE THE FINANCIAL IMPLICATIONS WHICH ARISE IN CONNECTION WITH THE PHYSICAL LINKING OF NETWORKS?

A. Whenever networks are interconnected and traffic is exchanged, a major issue between the parties -- bluntly stated -- is "Who pays for what?" Fortunately, the FCC Order provided some very specific definitions that help determine financial responsibility. As noted above, the IP is the point where the MCI network physically connects with the ILEC network. Generally, therefore, each carrier is responsible for bringing or getting its facilities to the IP.

When an MCI customer makes a local call to an ILEC customer, MCI will hand off that call to the ILEC at the IP. MCI then must pay the ILEC compensation for the "transport and termination" of that local call. (Final Rules, Section 51.701) The FCC has separately -- and specifically -- defined "transport" and "termination" in this context. (Order at Paragraph 1039) "Transport" is defined as "the transmission and any necessary tandem switching of local telecommunications traffic ... from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party...." (Final Rules, Section 51.701(c)) "Termination" is defined as "the switching of local

telecommunications traffic at the terminating carrier's end office switch...." (Final Rules, Section 51.701(d)) Thus, the IP determines the point at which MCI (when it is terminating local traffic to the ILEC) must begin paying transport and termination compensation to the ILEC.

Conversely, when an ILEC must hand over local traffic to MCI for MCI to "transport and terminate," the ILEC must use the established IP. For the ILEC to be allowed to do anything else would eviscerate the FCC's requirement that the ILEC permit the use of two-way trunking. Thus, the IP also serves as the point at which the ILEC must begin payment of "transport and termination" to MCI when it terminates a local call on MCI's local network.

It is important to note that in Section 51.711 of the Final Rules the FCC has determined that "rates for transport and termination of local telecommunications traffic shall be symmetrical." In addition, the FCC has decided that "where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than the incumbent LEC is the incumbent LEC's tandem interconnection rate." I noted previously that MCI's switch clearly serves a geographic area comparable to the area served by the ILEC's tandem. Therefore, MCI believes it is appropriate for it to charge the ILEC the tandem interconnection rate (defined as tandem switching plus the average transport between an ILEC tandem and the subtending end offices plus the local switching rate) for calls terminating to MCI's network. In addition, the ILEC and MCI will share the cost of the facilities used to interconnect the networks as defined by the location of the IP.

The FCC also determined, in section 51.709 of the Final Rules, that "the

rate of a carrier providing transmission facilities dedicated to the transmission of traffic between two carriers networks shall recover only the costs of the proportion of that trunk capacity used by an interconnecting carrier to send traffic that will terminate on the providing carrier's network."

Q. COULD YOU GIVE AN EXAMPLE OF HOW THE SELECTION OF AN IP AFFECTS THE FINANCIAL ARRANGEMENTS?

A. Yes, given all this, it is possible to walk through two examples to describe how the selection of the IP affects the "transport and termination" charge that both MCI and the ILEC must face.

Example 1: MCI Collocates at the Wire Center Housing an Access Tandem to Which MCI Needs to Trunk.

In this example, MCI has established a collocation at the wire center housing a tandem; the collocation will be designated as the IP. Two-way trunking will be established between the MCI switch and the ILEC tandem via the collocation facilities.

- o The Transport and Termination Charges to MCI for calls terminating on the ILEC network are:
  - (1) tandem switching and transport from the tandem to the end office where the call terminates (based on average transport from ILEC tandem to subtending end offices); plus
  - (2) termination at the end office.

  The total rate paid by MCI in this case is also known as the Tandem Transport and Termination rate or Tandem Interconnection Rate.

o The Transport and Termination Charges to the ILEC for calls terminating on MCI's network are:

(1) Transport from the IP to the MCI switching center (as discussed in Final Rules, Section 51.709), plus

(2) The symmetrical Tandem Transport and Termination.

In this example, the ILEC pays for the transport from the IP at its access tandem to the MCI switching center because MCI has provided the facilities from that switching center to the IP, and the ILEC is using those facilities to transport local traffic from the IP back to the MCI switching center. Once the call reaches the MCI switching center, however, MCI is permitted to charge the ILEC a transport and termination rate equal to the ILEC's tandem interconnection rate since MCI's switch serves an area comparable (if not larger) than the area served by the ILEC's tandem switch. (Final Rules, Section 51.711(3))

As detailed above, the specific symmetrical tandem transport and termination rate should be calculated as follows:

- Tandem switching rate, plus
- Shared transport based on average mileage from the ILEC tandem to the various end offices that subtend that tandem.

Example 2: IP At an Agreed to Meetpoint

In this example, MCI will jointly provision interconnect facilities to an agreed to meetpoint at a technically feasible location on the ILEC's network. The IP is at this meetpoint. MCI and the ILEC will establish two-way trunking to both and access tandem and an end office via these interconnection facilities.

o The Transport and Termination charges to MCI for traffic terminating to the

ILEC via the tandem switch are:

(1) transport from the IP to the access tandem; plus

(2) the Tandem Interconnection/Transport and Termination Rate, as described in Example 1.

- The Transport and Termination charges to ILEC for traffic terminating to MCI via the tandem switch are:
  (1) transport from IP to the MCI switching center; plus
  (2) the symmetrical ILEC Tandem Interconnection/Transport and Termination Rate.

- The Transport and Termination charges to MCI for traffic terminating to the ILEC via direct end office trunking (bypassing the tandem switch) are:
  (1) transport from the IP to the ILEC end office switch, plus
  (2) the local termination rate.

- The Transport and Termination charges to the ILEC for traffic terminating to MCI via the direct end office trunking are:
  (1) transport from the IP to the MCI switching center, plus
  (2) the symmetrical ILEC Tandem Interconnection/Transport and Termination Rate.

There are, of course, other options and possibilities, but the concept will be the same. The IP will delineate not only the physical point where one network ends and another begins, but also will determine the transport and termination charges that each carrier must pay to one another.

ACCESS TO UNBUNDLED NETWORK ELEMENTS

Q. WHY IS IT IMPORTANT FOR MCI TO HAVE ACCESS TO THE UNBUNDLED ELEMENTS OF THE INCUMBENT LOCAL EXCHANGE COMPANIES' NETWORKS?

A. As noted previously, MCI desires to offer local service as broadly as possible to both residential and business customers. MCI's local network, however, currently consists of high capacity fiber rings in downtown areas. While some residential apartment buildings may be accessible via MCI's fiber ring, this network, by itself, simply does not have the reach to serve a broad base of residential and business customers. Additionally, although MCI continues to implement local service switching centers throughout the nation, its capacity for providing switched services is extremely limited. Each of the 13 switches that MCI has implemented to date is capable of serving only 30,000 to 50,000 customers -- a drop in the bucket compared to the national base of over 100 million customers. To reach this larger base, MCI must have access to the unbundled elements of the ILEC's ubiquitous network.

Q. WHAT IS THE EFFECT OF THE FCC ORDER ON THE ISSUE OF WHICH UNBUNDLED ELEMENTS MUST BE MADE AVAILABLE BY THE ILECs?

A. The FCC's order mandates a set of seven unbundled elements that the ILEC must make available. The FCC ordered this first set of elements with the explicit recognition that further unbundling may be appropriate today, but it did not have the necessary information on the record to make such judgments, and therefore left that to the states to determine. It also indicated that further unbundling will be appropriate in the future. The FCC rules explicitly allows the states to order more

unbundling on a case by case basis. MCI, in this arbitration, requests the Commission to order unbundling beyond the minimum set in the FCC's order since there are additional elements that meet the FCC criteria. In addition, as networks evolve, it will be necessary on occasion to request additional unbundled elements. MCI is requesting an expedited bona fide request process to accomplish that future unbundling. That process is described in the testimony of MCI witness Don Price. The FCC's minimum set of elements includes some network elements, as defined in the Act, such as operator services and directory assistance, that are discussed in Mr. Price's testimony.

Q. WHAT ARE THE UNBUNDLED NETWORK ELEMENTS REQUESTED BY MCI AND HOW DOES MCI PROPOSE TO GAIN ACCESS TO THEM?

A. The FCC rules require the ILECs to unbundle a set of elements, but do not specify a method of implementation to ensure the unbundled elements are usable to requesting carriers. This task must be performed by the state Commission. Although access to these elements is necessary, it is not sufficient for CLECs to be viable providers: the terms and conditions at which they are available also effect our viability. In the following testimony, I will review each element to give this Commission some direction on how to best ensure proper implementation by the ILECs. I will also describe the additional elements that meet the FCC criteria and that the Commission should include in the ILEC's initial unbundling requirements. For each element, I will provide a basic description of the element, why that element is necessary to be unbundled, and how MCI proposes to gain access to that element from an engineering perspective.

A. Connecting Unbundled Elements

Q. PLEASE DESCRIBE HOW UNBUNDLED NETWORK ELEMENTS ARE CONNECTED.

A. Physical unbundled network elements (elements other than call processing databases) interconnect to other network elements or to CLEC collocations in a similar fashion. The elements terminate at some type of cross-connect devices (these devices can be Main Distribution Frames, or DS-1 or DS-3 cross-connect devices, for example). To connect the unbundled network element to either another element or to an MCI collocation (which also terminates at a cross-connect device), the ILEC must supply connecting cabling, which includes jumper wires to connect positions within a cross-connect device as well as house cabling running between the two cross-connect devices. Both the jumper cabling and house cabling are, very simply, just wires. There are no electronics or other intelligence associated with this cabling. Arranging this cabling may appear to be a minor issue in the larger scheme of unbundling of the network -- in fact, identical connection cabling and is routinely provisioned by the ILECs to connect its own network elements today. However, we have found, through first-hand experience, that the untimely, inaccurate and expensive provisioning of such cabling can be a significant bottleneck to network unbundling.

Each physical network element detailed below must also include the cabling required to make it operational, unless otherwise noted.

B. Elements the FCC Ordered to be Unbundled

1. Local Loop

Q. WHAT ARE LOCAL LOOPS AND HOW SHOULD THEY BE PROVISIONED?

A. The FCC defines the local loop as "a transmission facility between a distribution frame [cross-connect], or its equivalent, in an incumbent LEC central office, and the network interface device at the customer premises. This includes, but is not necessarily limited to, two- wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide ISDN, ADSL, HDSL, and DS1-level signals. " (Order at paragraph 380)

As the definition implies, unbundled loops end at the distribution frame of the ILEC. As discussed earlier, appropriate cabling will be required to connect the unbundled loop's frame appearance to other cross-connect points to access other network elements or MCI's or a third party's collocation. This cabling must be efficient and available in a timely fashion. Otherwise, it will not be financially feasible for MCI to utilize unbundled loops and MCI's ability to reach residential and small business customers will be extremely curtailed.

MCI anticipates provisioning unbundled loops in a variety of ways, each of which is clearly supported by the FCC rules. These methods include, but are not limited to:

- connecting the unbundled loop to an MCI collocation where MCI has placed digital loop carrier equipment (DLC) or other subscriber loop electronics of its choice. The DLC or DLC-type equipment will then be connected to interoffice transport facilities, either owned by MCI or leased from the ILEC or third party, that connect the collocated space to MCI's network
- combining the unbundled loop to other unbundled network elements, such as ILEC provided transport or switching
- connecting the unbundled loop to a third party collocation for provision of transport or other services

Several things are critical to make these arrangements work. First, there must not be unreasonable delays in establishing collocation, and the costs for collocation must be economically sound. In New York, for example, establishing collocations can sometimes take up to nine months and cost over $50,000 to just build the "collocation cage." This kind of delay and expense is intolerable. Second, MCI must have the ability to place the electronics of its choice in the collocated space. Some ILECs, such as Pacific Bell, have denied MCI's request to have this choice and thus in essence hold "veto power" over MCI's network design. Not only will this restriction prevent MCI and other CLECs from efficiently capturing the unbundled loop, it will delay the deployment state of the art network and limit our ability to differentiate our services from the ILEC. All of these issues are later in my testimony in the collocation discussion.

Q. WHAT ARRANGEMENTS SHOULD BE MADE FOR TRANSFERRING SERVICE TO MCI FROM AN ILEC?

A. Another issue is important when it comes to gaining access to unbundled loops -- coordinated (or "hot") cutovers. When MCI gains an existing ILEC customer and needs that unbundled local loop to serve that customer, then that local loop will need to be "cut over" from the ILEC to MCI. Mechanically, this is not a complex task; it only involves the movement of jumper wires on the MDF. Most importantly, however, the cutover cannot result in significant "downtime" for the customer's telephone line. Not only could that customer's safety be jeopardized, but such a degradation of service would be a significant disadvantage in switching service to MCI.

MCI proposes the following procedure for coordinated cutovers:

(1) On a per order basis, the ILEC and Metro will agree on a scheduled conversion time, which will be a designated two-hour time period within a designated date.

(2) The ILEC will coordinate activities of all ILEC work groups involved with the conversion. This coordination will include, but not be limited to, work centers charged with manual cross-connects, electronic cross-connect mapping, and switch translations (including, but not limited to, implementation of interim local number portability translations).

(3) The ILEC will notify MCI when conversion is complete.

(4) End user service interruptions will be minimized and should not exceed five minutes.

2. Network Interface Device

Q. PLEASE DESCRIBE THE UNBUNDLED ELEMENT KNOWN AS THE NETWORK INTERFACE DEVICE.

A. The Network Interface Device (NID) is "the cross-connect device used to connect LEC loop facilities to inside wiring not belonging to the LEC." The FCC Order, at paragraphs 392 and 393, describes the need for access to the NID. In summary, it is necessary on many occasions when serving large residential or office buildings in order to gain access to the inside wiring that is not owned by the ILEC.

According to the FCC Order, MCI should be able to gain access to the ILEC NID by connecting its own NID to the ILEC NID. This form of NID-to-NID connection is technically feasible and does not raise reliability concerns. It will be incumbent upon the ILEC to demonstrate that such connection is not feasible, and, if not, to detail the specific building locations at which such connection is not feasible.

We expect that generally cabling to connect the NIDs will be provided by the ILECs.

If connection to the NID involves a cutover of live customer traffic at that premise, then the cutover procedures described above must be followed.

3. Switching Capability

Q. WHAT SWITCHING CAPABILITY SHOULD BE UNBUNDLED?

A. Switching capability unbundling is defined in the FCC Rules by two distinct switch functions: local switching and tandem switching.

a. Local Switching

Q. WHAT IS LOCAL SWITCHING AND HOW SHOULD IT BE PROVISIONED?

A. In Section 51.319(c)(1)(i) of the FCC Rules, "the local switching capability network elements is defined as:

(A) line-side facilities, which include but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card;

(B) trunk-side facilities, which include but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and

(C) all features, functions, and capabilities of the switch, which include, but are not limited to:

(1) the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the incumbent LEC's customers, such as a telephone number, white page listing, and dial tone; and

(2) all other features that the switch is capable of providing, including but not limited to custom calling, custom local area signaling service features, and Centrex, as well as any technically feasible customized routing functions provided by the switch."

In this context, features, functions, and capabilities includes: i) all basic switching functions, ii) telephone numbers, iii) directory listing, iv) dial tone, v) signaling, and vi) access to directory assistance, vii) access to operator services, viii) access to 911, ix) all vertical features the switch is capable of providing; and x) any customized call routing features.

Access to local switching is at the ILEC end office. There are two points of access: the main distribution frame (or equivalent) and the trunk-side cross-connect. ILEC switching may be connected to MCI-provided loops, MCI-provided transport facilities, ILEC-provided loops, ILEC-provided transport facilities, or loops or transport facilities provided by a third party. MCI will require the ILEC to connect these elements as described above in "Connecting Unbundled Elements."

Q. WHO SHOULD DETERMINE HOW CALLS PLACED BY MCI CUSTOMERS ARE ROUTED?

A. MCI will be responsible for establishing how its customers calls will route, and for specifying in advance a trunking scheme to make such routing possible. Such trunking will be either supplied by MCI, or will be comprised of other unbundled network transport elements (dedicated or shared), or a combination of the two. The ILEC must make available to MCI any switch-supported trunk interface for the provision of network trunking, including SMDI interfaces for MCI-supplied voice mail services. Customer specific routing will be implemented via line class codes

or equivalent switch-specific methods. Such routing will allow MCI to designate routing for that customer's service, for each of the following call types:

- 0+/0- calls
- 911 calls
- 411/DA calls
- InterLATA calls specific to PIC or regardless of PIC
- IntraLATA calls specific to PIC or regardless of PIC
- 800/888 calls, prior to database query
- Call forwarding of any type supported on the switch, to a line or a trunk
- Any other customized routing that may be supported by the ILEC switch

On the line side, MCI must be able to purchase any line service available on the switch, including but not limited to POTS services, Centrex services, and ISDN BRI services, with all of their vertical features and signaling options. On the trunk side, MCI must be able to purchase any customer trunk service available on the switch, including but not limited to DID, DOD, 2-way, and ISDN PRI trunk services.

b. Tandem switching

Q. WHAT IS TANDEM SWITCHING AND HOW SHOULD IT BE PROVISIONED?

A. The tandem switching capability network element is defined by the FCC as:

(1) trunk connect facilities, including but not limited to the connection between trunk termination at a cross-connect panel and a switch trunk card;

(2) the basic switching function of connecting trunks to trunks; and

(3) the functions that are centralized in tandem switches (as distinguished from separate end-office switches), including but not limited to call recording, the routing of calls to operator services, and signaling conversion features.

This unbundled element is necessary to be able to perform a variety of functions including transit functions. The transit function is critical for new entrants to efficiently interconnect with other CLECs, IXCs and small independent carriers that home off the ILEC tandem. Until traffic levels justify the direct connection of these carriers, the ILEC tandem is the only method to interconnect all carriers in a market. (See also the FCC Order at paragraph 425)

MCI should be able to gain access to this unbundled element at the tandem switch location. Access will always be at a trunk cross-connect device serving the tandem switch. This cross-connect point will be connected to other unbundled elements, third party networks or MCI's collocation as described in "Connecting Unbundled Elements."

4. Interoffice Transmission Facilities

Q. WHAT ARE INTEROFFICE TRANSMISSION FACILITIES AND HOW SHOULD THEY BE PROVISIONED?

A. The FCC defines interoffice transmission facilities "as incumbent LEC transmission facilities dedicated to a particular customer or carrier, or shared by more than one customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunication carriers." Interoffice transmission facilities are customarily defined as either shared facilities or dedicated

facilities.

The shared interoffice transmission is the path between end offices and a tandem, or between end offices, that is shared by multiple carriers. This element is necessary to connect the tandem switching function to the local switching function. (See FCC Order at paragraph 441) In addition, MCI will purchase the shared transport element between ILEC end offices in conjunction with the purchase of the unbundled local switching element.

MCI will gain access to the shared interoffice transport facilities at the trunk cross-connect at the end office and/or the trunk cross connect at the tandem switch. This cross-connect point will be connected to other unbundled elements, third party networks or MCI's collocation as described in "Connecting Unbundled Elements."

Dedicated transmission facilities are transport facilities used exclusively for the requesting carrier's traffic and connect one or more of the following points: ILEC end offices, ILEC tandems, ILEC serving wire centers, other carrier wire centers or switching centers, IXC points of presence, collocated equipment at any ILEC end or tandem office. Such facilities shall be all technically feasible transmission capabilities, including but not limited to: DS0, DS1, DS3, and all optical levels.

Q. SHOULD MCI BE PROVIDED ACCESS TO DARK FIBER AS AN UNBUNDLED ELEMENT?

A. Although the FCC did not specifically require that the ILECs make available unbundled optical fiber or "dark fiber," MCI contends that dedicated transport must also include dark fiber, which from an engineering perspective is simply another level in the transmission hierarchy. Because network construction for the initial

placement of fiber facilities is timely and costly since it involves permits, road work, conduit placement, etc., telecommunications carriers typically install large quantities of fiber cables. Therefore, we believe that many of the ILECs have the dark fiber available where they have upgraded their facilities from copper plant and should be required to provide plant records to detail where excess capacity exists.

Dark fiber is necessary for MCI to expand its network reach with the flexibility of installing electronics that comport to its network architecture. This flexibility is essential for MCI to strategically deploy efficient new technologies into its network. Without this network element, MCI's only choices are to undertake the timely and expensive construction effort to place its own fiber in the ground or to purchase the use of "lit" (fiber with electronics) transport services from the ILEC. It does not make sense to require MCI to purchase the use of ILEC electronics where spare fiber capacity is available; in fact, using the ILEC's existing electronic technology forces MCI to be held captive to the ILEC's network technology and design rather than being allowed to deploy new, more efficient technologies that are consistent across geographic locations.

MCI and other carriers should be able to request availability of dark fiber on a particular route. The ILEC should respond to that request within 10 days on availability on that route or comparative alternative route and specify all available splice points and specifications of the fiber optic plant. If the fiber is available, MCI will meet the ILEC at its specified splice points (usually in a manhole) with its own fibers. MCI will then deploy its own electronics at its network sites.

Q. WHAT ARE DIGITAL CROSS-CONNECT SYSTEMS, AND HOW SHOULD THEY BE PROVIDED?

A. The FCC Order, at paragraph 444, requires that ILECs provide requesting carriers access to digital cross connect system functionality. They describe the DCS as a device that "aggregates and disaggregates" high-speed traffic. In general, the DCS provides for transmission level changes within a transport route, or where two transport routes meet. Aside from providing electronic software controlled multiplexing of facilities at different transmission levels, DCS also provides automated cross connection of transmission facilities at like levels, for the purposes of "grooming" facilities to optimize network efficiency. Types of DCSs include but are not limited to DCS 1/0s, DCS 3/1s, and DCS 3/3s, where the nomenclature 1/0 denotes interfaces typically at the DS1 rate or greater with cross-connection typically at the DS0 rate. This same nomenclature, at the appropriate rate substitution, extends to the other types of DCSs specifically cited as 3/1 and 3/3. Types of DCSs that cross-connect Synchronous Transport Signal level 1 (STS-1s) or other Synchronous Optical Network (SONET) signals (for example, STS-3) are also DCSs, although not denoted by this same type of nomenclature. DCS may provide the functionality of more than one of the aforementioned DCS types (for example, DCS 3/3/1 which combines functionality of DCS 3/3 and DCS 3/1).

Devices that provide similar aggregation and disaggregation functions via manual cross-connections are generally referred to as "multiplexors." Because of their functional similarity to the DCS, we interpret the FCC's DCS directive to include multiplexors such as M13s and channel banks.

ILECs routinely provide both DCS (including multiplexor) functions today to interexchange carriers in conjunction with dedicated transport services. MCI agrees that DCS supports transport services, but also requests that the ILEC be required to provide this function in combination with dedicated transport or separately so MCI

can combine DCS with its own transport or that supplied by other parties.

MCI will gain access to the digital cross-connection system at the appropriate (optical, DS3, DS1, voice grade level) cross-connection device serving the DCS. This cross-connect point will be connected to other unbundled elements, third party networks or MCI's collocation as described in "Connecting Unbundled Elements."

5. Signaling Networks, Call-Related Databases, and Service Management Systems

a. Signaling Systems

Q. WHAT ARE UNBUNDLED SIGNALING SYSTEMS AND HOW SHOULD SIGNALLING NETWORKS BE INTERCONNECTED?

A. As explained in the FCC Order, signaling systems "facilitate the routing of telephone calls between switches SS7 networks use signaling links to transmit routing messages between switch, and between switches and call-related databases." (at paragraphs, 455, 456) The Order goes on to state that "incumbent LECs are required to accept and provide signaling in accordance with the exchange of traffic between interconnecting networks." It concludes that "the exchange of signaling information may occur through an STP to STP interconnection." (at paragraph, 478)

The FCC also identifies a need for the ILECs to offer unbundled access to their STP and signaling link elements. (Order at Paragraph 479) MCI concurs that such access is required on non-discriminatory terms and conditions. However, it is clear from the ensuing discussion in paragraphs 479 - 483 that access to unbundled signaling links and STP ports is intended to allow new entrants to obtain signaling services from the ILEC. This eliminates the CLEC's burden of installing their own

signaling networks. This requirement is clearly distinct from the requirement to connect signaling networks for support of traffic exchange as described in the previous paragraph of this paper.

Interconnection of the signaling networks facilitates routing of telephone calls flowing from the ILEC to the CLEC and from the CLEC to the ILEC. It also is required for the provision of certain CLASS services such as caller ID, automated callback, and automated recall, as well as the transmission of 64 kbps ("clear channel") calls flowing in both directions. Thus, the connecting carriers must share the burden of signaling network interconnection in support of traffic exchange.

MCI proposes that this be accomplished as follows:

- In each LATA, there will be two signaling points of interconnection (SPOIs). The requirement for two SPOIs is driven by the critical importance attached by all parties to signaling link diversity.
- Each party will designate one of the two SPOIs in the LATA. A SPOI can be any existing cross-connect point in the LATA. Since each party will designate a SPOI, we believe that both parties will be incented to select reasonable and efficient SPOI locations.
- Each signaling link requires a port on each party's STP. We propose that each party provide the necessary ports on its STPs without explicit charge.

The SS7 interconnection shall provide connectivity to all components and capabilities of the ILEC SS7 network. These include:

- ISDN Services User Part (ISUP) signaling for calls between MCI and ILEC switches
- ISUP signaling for calls between MCI and other networks that transit

through the ILEC switched network.

- Translations Capability Applications Part (TCAP) messaging in support of querying SCP-housed databases, and TCAP messaging in support of CLASS services

b. Call Related Databases

Q. WHAT ARE CALL RELATED DATABASES AND WHY ARE THEY IMPORTANT?

A. As defined by the FCC, call related databases are databases, other than operations support systems, that are used in signaling networks for billing and collection or the transmission, routing, or other provision of a telecommunications service. An incumbent LEC shall provide access to its call-related databases, including, but not limited to, the Line Information database, Toll Free Calling database, downstream number portability databases, and Advanced Intelligent Network databases, by means of physical access at the signaling transfer point linked to the unbundled database.

Access to Call-Related databases provides for the centralized intelligence that governs the disposition of calls. Additionally, service control points (SCPs) serve as the means by which subscriber and service application data is provided, and maintained. The databases provide, in response to an SS7 inquiry, the information necessary to provide a service or deliver a capability.

For MCI to be able to gain access to call-related databases, the following requirements must be met:

- The ILEC must provide MCI billing and recording information to track database usage.

Specific to LIDB:

- The ILEC must enable MCI to store in the ILEC's LIDB any customer line number or special billing number record, whether ported or not, for which the NPA-NXX is supported by that LIDB.

- The ILEC must perform the following LIDB functions for MCI's customer records:
  - billing number screening
  - calling card validation
  - data screening function

Specific to LNP Database:

- The ILEC LNP SCP must return to the MCI switch:
  - appropriate routing for ported numbers
  - industry specified indication for non-ported numbers, and
  - industry specified indication for non-ported NPA-NXX

Specific to AIN Applications:

- The ILEC must provide MCI with descriptive and detailed technical information regarding each of the ILEC's AIN applications housed in its AIN SCPs.

- The ILEC must routinely provide MCI with information regarding database and application capacity available on each of its AIN SCPs.

- The ILEC must allow MCI to gain access to another party's applications housed in the ILEC AIN SCPs, assuming that MCI has gained written notification from that third party permitting MCI to make use of its applications.

c. Service Management Systems

Q. WHAT ARE SERVICE MANAGEMENT SYSTEMS AND HOW SHOULD THEY BE PROVISIONED?

A. The FCC defines Service Management Systems as computer databases or systems not part of the public switched network that, among other things, interconnect to the service control point and send to that service control point the information and call processing instructions needed for a network switch to process and complete a call, and provide a telecommunication carrier with the capability of entering and storing data regarding the processing and completing of a call.

The FCC ordered that the ILEC make its SMS and AIN Service Creation Environment available to CLECs for creation and downloading of AIN applications, on a non-discriminatory basis. (Paragraph 493) It is MCI's belief that, in order for this requirement to be met:

- The ILEC must make SCE hardware, software, testing, and technical support resources available to MCI in a similar fashion to how they make such resources available to themselves.
- The ILEC must partition its SCP so as to protect MCI's service logic and data from unauthorized access or execution.
- The ILEC must provide training and documentation to MCI at parity with that provided to itself.

- The ILEC must provide MCI secure LAN/WAN and dial-up remote access to its SCE/SMS.
- The ILEC must allow MCI to create applications and download data without ILEC intervention.

The Operations Support Systems Functions and Operator Services Directory Assistance are addressed in the testimony of Don Price.

C. Additional Unbundled Elements

Q. WHAT ADDITIONAL UNBUNDLED ELEMENTS SHOULD THE REGULATORY AUTHORITY ORDER BELLSOUTH TO PROVIDE?

A. MCI requests the Commission to immediately order at least one additional unbundled element beyond the FCC minimum set: Loop Distribution. This element, described below, meets the guidelines detailed in the FCC rules that give the state authority to order additional elements. MCI plans to pursue further unbundled network elements in the future that include, but are not limited to: additional AIN (advanced intelligent network) unbundling, data switching, and further unbundling of the local loop.

1. AIN

Q. WHY IS NONDISCRIMINATORY ACCESS TO AIN CAPABILITY IMPORTANT?

A. The elimination of all discriminatory access to AIN capability will become increasingly important as more and more innovative new services depend on that capability. MCI expects to be introducing such services within a year, and to be able to move forward with our plans we must have appropriate access to the capability. In particular, in order to provide new services that are consistent across

geographic locations and make the most creative use of MCI's existing intelligent network platforms, we believe that it is extremely important the state Commission order the ILECs to interconnect their signaling systems to MCI applications/databases housed in MCI AIN SCPs. The specific access and/or interconnection methods that would permit the introduction of such new services include:

- housing of MCI AIN applications in Sprint's AIN Service Control Points ("SCPs"), and permitting MCI's use of Sprint's Service Creation Environment ("SCE") and Service Management System(s) ("SMS"), as required in the FCC's recent Order.
- MCI access to its applications in Sprint's SCPs from our switches or Sprint's switches when MCI purchases unbundled switching.
- MCI access to Sprint's AIN applications when MCI purchases unbundled switching.
- MCI access to AIN switch triggers in Sprint's switches for access to MCI's AIN applications. (A "bona fide request" ("BFR") process may be necessary to accomplish such access. MCI's proposed BFR process is set forth in the testimony of Mr. Price.)

The FCC noted that the record on the technical feasibility of such interconnection was not clear, and encouraged state Commission to consider this issue. at paragraph 502) MCI believes that such interconnection is technically feasible.

2. Loop Distribution

a. Definition

Q. PLEASE DEFINE THE LOOP DISTRIBUTION THAT MCI WANTS THE

REGULATORY AUTHORITY TO REQUIRE BELLSOUTH TO UNBUNDLE AT THIS TIME.

A. Loop Distribution is the portion of the loop from the network interface device at the customer premise to the feeder distribution interface. Per Bellcore specifications, there are three basic types of feeder-distribution connection: i) multiple (splicing of multiple distribution pairs onto one feeder pair); ii) dedicated ("home run"); and iii) interfaced ("cross-connected"). While older plant uses multiple and dedicated approaches, newer plant and all plant that uses DLC or other pair-gain technology necessarily uses the interfaced approach. The feeder-distribution interface (FDI) in the interfaced design makes use of a manual cross-connection, typically housed inside an outside plant device ("green box") or in a vault or manhole.

b. The need for unbundled loop distribution plant

Q. WHY DOES MCI NEED UNBUNDLED LOOP DISTRIBUTION PLANT?

A. Loop distribution is necessary to give MCI flexibility in deploying loop facilities by permitting MCI to use its own loop feeder plant where available. (See FCC Order at paragraph 390) Lack of loop distribution will impair MCI's ability to provide local service because it will increase MCI's costs unnecessarily in those instances where it does not require the ILEC's loop feeder plant, but nonetheless requires the ILEC's distribution plant. As MCI and other CLECs expand their facilities-based, efficient SONET networks, they may be located very near an FDI and only require the loop distribution to reach multiple customer premises. However, without this sub-loop element available for purchase, CLECs will be forced to purchase the whole loop, even though they have their own facilities that could be used for a portion of the loop. MCI does not want to have to purchase functional elements in

the ILEC's networks that it can efficiently provide itself using new technologies. Thus, an appropriate level of granularity is required for the unbundled local loop so CLECs can make a rational lease vs. build decision in smaller increments. Without this sub-loop element, competitive carriers will be forced to build full loops to multiple customer premises on a speculative basis (which is timely and costly) rather than economically and efficiently replace portions of the leased network with constructed facilities. Replacing the feeder portion of the loop is the most efficient method for CLECs to evolve to a facilities based carriers.

c. Access to loop distribution

Q. HOW SHOULD ACCESS TO UNBUNDLED LOOP DISTRIBUTION BE PROVIDED?

A. Access to loop distribution is technically feasible in general for feeder distribution connections in the interface design. The ILEC can make available connecting block capacity within its Interfaced FDI for connection of MCI's copper feeder facilities. This can either be capacity within its terminal block or an additional terminal block. MCI will require an interval of 30 days to make a FDI ready for provisioning. These make-ready activities include:

- Review of available capacity and other engineering issues and confirmation of committed make-ready date (5 days after order).
- Interval of 5 days from request for make ready to delivery of a make-ready firm order commitment (FOC).
- Physical preparation of the FDI, including making available feeder block capacity through block expansion, addition of an additional block, or removal of unneeded ILEC feeder facilities, and preparation of the FDI for

entrance of MCI's feeder cable.

- Delivery of feeder block designation and assignments to MCI.
- Testing the installation of MCI's feeder cables through the feeder block via cooperatively developed loopback tests.

MCI's responsibilities will include delivery of copper feeder cable to the ILEC designated manhole or other interface point serving the FDI, with enough spare cable to extend from the interface point to the FDI. MCI may elect to include spare copper pairs in the cable for repair and growth.

Once in place, MCI will order distribution elements to all addresses served by the FDI on a customer order basis. MCI will be responsible for selecting the feeder cable assignment within the order. The ILEC will be responsible for manually cross-connecting the appropriate distribution cable to MCI's selected feeder and cooperatively testing service between the customer demarcation point and MCI's selected feeder termination point. The standard interval for this activity should be two business days.

Feeder/Distribution unbundling in situations where the ILEC has deployed Multiple or Dedicated designs, as well as unbundled purchase of Loop Electronics and Loop Feeder, will be requested via a bona fide request process.

COLLOCATION

Q. WHAT ARE THE ARRANGEMENTS WHICH MUST BE IN PLACE FOR COLLOCATION TO BE VIABLE?

A. The terms and conditions for collocation for interconnection and access to unbundled network elements are different -- broader -- than those that were needed in the past for competitive access providers. As of today, the terms and conditions surrounding

collocation serve as a barrier to enable competitive entry. The FCC has recognized this and has taken four corrective measures. We urge this Commission to ensure proper procedures are put in place to make collocation viable:

1. **Ability to collocate subscriber loop electronics, such as Digital Loop Carrier, in the Central Office**. The current collocation rules, terms and conditions that only allow the placement of basic transmission equipment in the Central Office were not designed with access to unbundled elements in mind, and give the ILEC a de facto bottleneck veto on CLEC network design plans. (Order at paragraph 580)

2. **Ability to purchase unbundled dedicated transport to the collocation facility**, rather than physically construct from the CLECs network to the ILEC Central Office. (Order at paragraph 590)

3. **Ability to interconnect with other collocators in the same Central Office**. This ability is necessary to allow the expedient and economic interconnection of CLECs networks for the exchange of local traffic or for the use of one another's facilities via negotiated business arrangements. (Order at paragraph 594)

4. **Ability to collocate via physical or virtual facilities.** (Order at paragraph 565)

As mentioned earlier in my testimony, MCI has experienced unacceptably long intervals in establishing collocations. Because collocation is such a fundamental requirement for competitive entry, we request this

Commission to mandate a maximum three month interval for physical and a two month interval for virtual collocations.

Q. DO YOU HAVE ADDITIONAL COMMENTS?

A. Yes. I would simply point out that the proposed contract that MCI has filed includes language on all of the issues I have discussed in my testimony.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

REBUTTAL TESTIMONY OF JERRY MURPHY

ON BEHALF OF MCI

DOCKET NO. 961230-TP

NOVEMBER 19, 1996

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jerry W. Murphy, and my business address is 2250 Lakeside Boulevard, Richardson, Texas 75082.

Q. HAVE YOU PREVIOUSLY FILED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My testimony responds to the testimony of Mr. Hunsucker concerning the unbundling of loop distribution facilities and dark fiber, the types of equipment that can be placed in collocation space, and the application of charges for terminating local traffic where MCI's network architecture is different from Sprint's.

Q. DO YOU AGREE WITH MR. HUNSUCKER THAT REQUESTS FOR UNBUNDLING OF LOOP DISTRIBUTION SHOULD BE HANDLED VIA A BONA FIDE REQUEST PROCESS? (PAGES 11-12)

A. No. The bona-fide request process is not a sufficient replacement for contract provisions. Absent specific details on when and under what terms and conditions this element will be made available, there is the opportunity for delay and/or

arbitrary rejection of bona-fide requests. This will greatly impair MCI's ability to plan for the deployment this network element in its network.

Sprint has acknowledged that they are committed to providing any CLEC with the minimum list of unbundled network elements contained in the FCC's rules. The FCC provided that their minimum list be expanded with additional network elements where the state commissions could determine technical feasibility. There is no question that unbundling of loop distribution is technically feasible in the typical situation in which loop distribution facilities connect with loop feeder facilities at a feeder distribution interface (FDI) or other existing cross-connect point. The type of interconnection arrangement has been in effect in Iowa since 1978 between US West and Northwest Iowa Telephone Company.

To mitigate any possible network security or reliability concerns relating to unbundling of loop distribution, MCI is willing to have all work at the Sprint cross-connect point performed for MCI by Sprint personnel. In the minority of cases in which there is no existing cross-connect point between loop distribution and loop feeder, MCI would be willing to use a bona fide request process for access to unbundled loop distribution.

Q. DO YOU AGREE WITH MR. HUNSUCKER'S REASONS FOR SPRINT'S REFUSAL TO PROVIDE DIM OR DARK FIBER TO MCI? (PAGES 12-15)

A. No. First, let me describe what this element is. Dark fiber is simply the currently unused or "extra" fiber optic strands within a fiber optic cable sheath. This is exactly analogous to the unused strands of copper cable within the

traditional copper cable sheaths that Sprint has acknowledged that they will unbundle. Mr. Hunsucker first says that dark fiber is does not meet the FCC's definition of a network element because it is not currently used in the provision of a telecommunications service. Then, Mr. Hunsucker turns around and says that Sprint has deployed fiber in its network to handle existing and forecasted demand -- obviously for additional telecommunications services. While a particular strand of fiber may not be in use today, the fiber facilities have clearly been placed for the purpose of providing telecommunications services and are used for that purpose when demand warrants. If Sprint's logic is followed, would Sprint refuse to provide an unbundled loop to a previously unoccupied home in a subdivision on the grounds that the loop is not currently being used to provide a telecommunications service? This is ridiculous. From an engineering perspective, dark fiber is simply one more element in the transmission hierarchy, and the fact that it is not active at a particular time does not change its character as a facility that is used in the provision of telecommunications service.

Q. HAVE INCUMBENT LECS PROVIDED DARK FIBER SERVICE IN THE PAST?

A. Yes. MCI currently leases dark fiber from many different LECs nationwide which clearly demonstrates technical feasibility. All MCI is requesting is that Sprint treat us equally as it treats itself. When Sprint needs to deploy additional capacity, they assign a small amount of their available dark fiber to that requirement, consistent with the way that all network elements are used.

Q. WHAT ABOUT MR. HUNSUCKER'S ARGUMENT THAT SPARE FIBERS

GENERALLY ARE NOT AVAILABLE IN SUFFICIENT QUANTITIES FOR ALL CLECS AND SPRINT SHOULD NOT BE REQUIRED TO CONSTRUCT NEW FACILITIES TO MEET DEMAND FOR DARK FIBER?

A. MCI is not asking Sprint to install new dark fiber where it does not exist today. MCI is only asking that dark fiber be provided, where available, on a first-come, first-served basis. These dark fiber resources need to be treated just like any other limited network resources. Possible limitations on line class codes is not a reason to deny selective call routing to all carriers, and possibly limited availability of NXX codes is not a reason to deny such codes to new carriers. Similarly, possible limitations on availability of dark fiber is not a reason to refuse to unbundle.

Q. WHAT ABOUT MR. HUNSUCKER'S STATEMENT THAT RESALE OF DARK FIBER PLACES ALL OF THE RISK ON SPRINT?

A. I fail to see how the risk issue is any different for dark fiber than for any other unbundled network element. MCI will pay cost-based rates for all unbundled network elements that allow Sprint to recover its costs and earn a reasonable profit. In fact, by selling facilities that are already in place but are currently idle, Sprint improves the utilization of its assets, so the risk to Sprint would appear to be reduced, not increased.

Q. DO YOU AGREE WITH SPRINT'S POSITION THAT REMOTE DIGITAL LINE UNITS (RDLUs) WILL NOT BE PERMITTED IN COLLOCATION SPACE?

A. No. In general, MCI opposes any arbitrary restrictions on telecommunications

equipment that can be placed in a collocation space. A collocator should rightly be subject to reasonable space limitations, power use limitations, heat production limitations, etc. So long as the collocator complies with all of these requirements, it should be permitted to use the collocation space in the most efficient manner possible, otherwise Sprint will effectively achieve a "veto power" over MCI deploying the most efficient network it can using modern technology.

A remote digital line unit (RDLU) is a device that serves two functions. The predominant function is to concentrate signals from unbundled network facilities for transmission to MCI's own switch. In many cases, an RDLU is the most efficient means of providing this loop concentration function. An RDLU also has some switching capability -- for example it can switch calls between two unbundled loops that both terminate on the RDLU, or it can switch calls from an unbundled loop to a specified trunk group, such as a 911 trunk. This provides some measure of redundancy. If interoffice facilities between Sprint's central office and MCI's switch were out of service for any reason, the RDLU could ensure that emergency calls from MCI customers are still routed to the appropriate 911 center.

Q. DO YOU AGREE WITH SPRINT'S RESTRICTIONS ON CONSTRUCTION OF INTERCONNECT FACILITIES?

A. No. Sprint arbitrarily requires that Sprint build a maximum of 50% of the interconnection facilities, or to their exchange boundary, whichever is less. The FCC Order clearly requires Sprint to interconnect with MCI at any technically

feasible point, regardless of who provides what. The meet point of the two networks is the "interconnection point" (IP) and each company will compensate the other depending on how much each company provided.

MCI must be allowed to designate any technically feasible point of interconnection, including: mid-span meets, line-side of local switch; trunk side of local switch, trunk interconnection point for tandem switch; central office cross connect points; out-of-band signaling transfer points; and the points of access to unbundled elements as defined by the FCC and/or the Commission, or as otherwise agreed to by the parties irrespective of whether defined by the FCC and/or the Commission. A mid-span meet does not require each party to physically build its separate segment of a facility. This permits shared ownership of a facility built by one party, with a meet-point denoting where ownership changes and with both parties bearing their proportionate share of the costs.

Q. DO YOU AGREE WITH MR. HUNSUCKER'S POSITION THAT MCI SHOULD NOT BE COMPENSATED ON A SYMMETRICAL BASIS FOR BOTH TRANSPORT AND TERMINATION UNLESS MCI HAS DEPLOYED BOTH TANDEM AND END OFFICE SWITCHES IN ITS NETWORK?

A. Absolutely not. Under Section 51.701 and 51.703 of the FCC Rules, Sprint is required to establish reciprocal compensation arrangements for transport and termination of local traffic. Section 51.701(e) defines reciprocal compensation as an arrangement in which each carrier receives compensation from the other "for the transport and termination" of local traffic which originates on the other carrier's network. Under Sprint's approach, MCI would not receive

compensation for tandem transport unless MCI mirrored Sprint's antiquated network architecture instead of deploying the most efficient architecture using today's technology. This ignores the provisions of Sections 51.701(c) and (d) which define transport and termination in terms of the facilities used by the incumbent LEC, or the "equivalent facility" provided by a carrier other than the incumbent.

Q. IF MCI DOES NOT USE A TANDEM/END-OFFICE SWITCHING HIERARCHY, WHAT IS THE EQUIVALENT FACILITY PROVIDED BY MCI?

A. First of all, Mr. Hunsucker testified that "where the CLEC and ILEC provide the same call termination functionality the same compensation rates should be applicable." The purpose and functionality of tandem switches in the old ILEC architecture is to distribute calls to any switch which serves any end user within the tandem serving area. The equivalent facility is whatever facility MCI uses to terminate traffic over a geographic area that is at least as large as the area served by Sprint's tandem. The classic switching hierarchy was dictated by limitations on loop length using copper facilities. This resulted in networks that use a relatively large number of switches positioned very close to the end users of that switch. MCI's network, which uses modern distributed technology, supports much greater serving area with a greater number of subscriber loops per switch.

Both network architectures take traffic from a point of interconnection and terminate it throughout a wide geographic service area. So long as the territory

served by MCI's switch is at least as large as the area served by Sprint's tandem and the subtending end offices, each carrier is using "equivalent facilities" to provide the same function, and each carrier should be entitled to the same compensation. Any other conclusion would only create an incentive to build inefficient networks which would ultimately be detrimental to the consumers of Florida.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Q (By Ms. McMillin) And you had no exhibits; correct?

A That's correct.

Q Please summarize your testimony.

A Yes, I will. As I have already said, my name is Jerry Murphy and I'm the director of MCI Metro network implementation for the eastern region, and I'm tasked with deploying MCI's local networks here in Florida and in other parts of the eastern portion of the country.

Local network implementation, first of all, is not a theory to MCI nor to me personally. It's what I've been doing for over six years, which many would say is longer than the competitive telecommunications industry has existed in this country.

My testimony today covers the remaining issues regarding the initial technical requirements in the areas of network interconnection unbundling and collocation. These are the essential network building blocks of a first opening of the local market here in Florida to the benefits of competition.

Fortunately, there are areas between MCI and Sprint that we have agreed to and stipulations that have greatly shortened the number of issues that we

need to discuss with you today, and this should be encouraging to us all. Therefore, I will focus my testimony on the areas that remain unresolved.

Of course, as the old saying goes, the devil is in the details, and therefore when considering the elements and issues that I will discuss, I believe we need to focus on three fundamental questions.

First is, what is the element, will it be offered, and that is, is it technically feasible; how will it be offered, what are those terms and conditions, those devilish details that we need to get on the record to make sure that what will be offered will be offered fairly to the new entrants in competition; and then, lastly, how much will it cost.

The last question is outside of the boundaries of my testimony, but I would like to focus on the first two for a moment.

Regarding the "what" and "if" questions, there are still several network elements which MCI and Sprint have disagreements. These are collocation, local transport compensation, and the availability of documentation on available rights-of-way. These items are each both technically feasible and, in fact, what we are asking for has been done or soon will be made available in other jurisdictions.

The FCC order was very clear in its definition in that it refers, quote, solely to technical or operational concerns, rather than economic space or site considerations, unquote. Thus, so long as from a technical perspective that what we are asking for is doable, it is technically feasible.

There is some agreement between MCI and Sprint, but as I said, there are several details that MCI just knows will be a killer to effective competition if we don't resolve them now in advance.

Sprint claims that they have a right to dictate what equipment it will or will not allow MCI to place in the collocation space that we intend to lease from them that will become the basis of the demarc or network interface point between the MCI network and the Sprint network.

It does not give us any reasons to indicate why what we're asking for is not technically feasible or that it will harm the Sprint network in any way. Without our ability to choose whatever equipment within the reasonable guidelines of space and power that MCI wants to deploy, Sprint will achieve a veto power over MCI deploying the most efficient network designs available to it today.

Specifically, MCI is requesting the

authority to install our remote digital line units in the collocation facilities that will enhance the efficiency and reliability of the network that MCI will offer.

In addition, Sprint must not be able to dictate the conditions of which different collocators in collocation facilities are allowed to interconnect with each other. These interconnections are clearly technically feasible as they have been done, and it is a simple cross-connect between one cage to another between one collocator and another within a facility.

And, lastly, the right-of-way engineering drawings are another one of those details that we can make a general statement that these rights-of-way will be made available to the new entrants, but without the engineering drawings and other details that we need to determine where they are at and what exists, they in effect become unusable to us.

Now, if we turn our focus to the issue of the "how to," it is my hope and understanding that we will leave this proceeding today with a contract that governs how MCI and Sprint will interoperate with each other. Our experience in other regions and with other incumbents suggests that the incumbent LECs tend to push for a very high level in general agreement, where

we have proposed a much more detailed contract.

The bottom line is this: If we don't leave these proceedings with a document that clearly defines the responsibilities and the time lines of each party to the other, then we will surely repeat our sad history that we have experienced in other areas, in other jurisdictions where we have spent millions of dollars on switches and network, only to sit idle for months after the state Commission has ordered the incumbent LEC to interconnect with us.

The state order was well-intentioned, but lacked that detail to drive the "how to" of how the network elements and other facilities would be made available for competition. The result was that the citizens paid the price by having to wait even further for even that modest level of competition to become real.

That concludes my summary.

MS. McMILLIN: Thank you, Mr. Murphy. Mr. Murphy is available for cross.

CHAIRMAN CLARK: Mr. Fons.

CROSS EXAMINATION

BY MR. FONS:

Q Good morning, Mr. Murphy. I'm John Fons representing Sprint, and I have some questions concerning your testimony, your direct and your rebuttal; but before I do that, I just want to cover a few things that you raised on your summary.

And one of the issues that you raised was the ability of MCI to interconnect with other collocated entities in the Sprint central office. It's my understanding -- and you need to correct me if I'm wrong -- that that is not an issue which MCI and Sprint are disputing. I thought we had resolved that issue.

A My counsel advises me that we have. I was not aware of that.

Q The other issue that you raised was the access to records. You suggested that Sprint will not grant MCI access to the engineering records, the right-of-way records, the plant records.

Isn't it a fact that Sprint will grant MCI access to all of these records; the issue is only what compensation will be charged to MCI for access to that information?

A Once again, I believe that we have general

agreement from Sprint that that information will be made available.

But, once again, going back to my concern over the details, you know, what are the time frames that the information will be made available, what will be deemed proprietary versus nonproprietary, these are the things that I think we need to agree on and get into the record in the form of an order so that sometime down the road we don't run into the situation where we cannot get the data we need to effectively deploy the network.

Q Well, I'm a bit confused. I thought that by virtue of our stipulation and agreement, that we had disposed of all of those issues except the issue of compensation. Now you're saying that MCI is raising other issues concerning access, timing, et cetera?

A No, I don't believe we are raising other issues. It's just that those details -- for example, we have requested the data to be made available to us on two business days' notice, that it's my understanding that Sprint has not agreed to.

Q Well, are you then -- I think we have some miscommunication here, and perhaps if we could go off the record for a few moments we can try to solve this.

CHAIRMAN CLARK: Mr. Fons, I take it you

want to consult with MCI's attorneys.

MR. FONS: Yes, I would like to very much, if we could have a brief recess.

CHAIRMAN CLARK: Is that acceptable?

MR. MELSON: That's acceptable, or I can do it on the record here, whichever you prefer.

CHAIRMAN CLARK: We'll take a break until quarter after, which you discuss it and then come back and let us know.

(Brief recess.)

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CHAIRMAN CLARK: Let's go back on the record. Mr. Fons and Mr. Nelson.

MR. MELSON: Commissioner Clark, I believe the witness was probably expressing his understanding of the stipulation a little differently than the way Mr. Fons and I understand it, and I think we've got that squared away.

There are a number of issues, for example the engineering records, where we have agreed to accept the decision that this Commission made in the BellSouth and GTE cases; and that is a conceptual level decision, and that concept has got to be incorporated into the final contract we file with you at the conclusion of these proceedings.

There are some details to be worked out between now and then. There are no Commission decisions to be made, unless we get to the end of the day and believe that we're unable to work those details out and submit, in essence, two sets of language for implementing your broad policy and leave you to choose one of them.

So there may be a role for the Commission in resolving some of these details at the end of the process, but we're not asking you in this hearing to vote on any of those details; and there was a miscommunication between us and the witness about that aspect of the way the stipulation worked.

CHAIRMAN CLARK: Okay.

MR. FONS: With that understanding, we'll proceed on to other subject matters.

CHAIRMAN CLARK: Go ahead, Mr. Fons.

Q (By Mr. Fons) Mr. Murphy, let's turn to one of the other issues that you addressed, and that is the issue of mutual and reciprocal compensation. Can you describe for me what your understanding of mutual and reciprocal compensation for local termination includes?

A Yes, sir. My understanding is that we each have a network, Sprint and MCI in this case, and we

will interconnect those networks; and for calls that Sprint sends to MCI customers and for calls that MCI sends to Sprint customers, that we will each receive the same or reciprocal compensation for carrying each other's customers' traffic across our networks.

Q And is it your understanding, then, that when an MCI customer calls a Sprint customer that when that traffic is delivered to Sprint, MCI can elect where that traffic will be delivered, either at the tandem or at the end office?

A Yes, that's true.

Q And if it's delivered at the tandem, will Sprint charge MCI for tandem switching?

A Yes, it will.

Q And will Sprint charge MCI for the transport of that call from the tandem switch to the end office switch?

A I believe you will, yes.

Q And will Sprint also charge MCI for local switching at the end office?

A Yes.

Q Will Sprint charge MCI for any of the transport from that end office to the customer's location over the local loop?

A No. You do not get a separate charge for

the local loop.

Q And the local loop is the piece of facility from the end office switch to the customer's location; isn't that correct?

A In your network, yes.

Q Now, on a call that a Sprint customer makes to an MCI customer and where we are interconnected, what will MCI -- what does MCI propose to charge Sprint for the termination of that call?

A MCI proposes to charge a transport charge from the point of interconnect of the two networks, the IP, in other words, to the MCI host switch, a charge then equivalent to and symmetrical to whatever you would charge us, as we just discussed, to deliver a call to your end user.

Q And will there be a charge for local switching at the end office?

A There will be a charge that's equivalent to your tandem transport and termination charge that reflects -- and, as I said, it's symmetrical to whatever you would charge us for the same service -- and it reflects the use of our network -- you know, using modern distributed switching architectures, that delivers the call functionally equivalent, but using different boxes, you know, that are available in the

1990s versus the 1940s or something when the Sprint network was designed.

Q Does the FCC define transport in its order or rules?

A I believe it is mentioned, yes.

Q And isn't it defined as that facility between the tandem switch and the end office switch?

A I can't recall, sir.

Q If that is the definition, is MCI providing a facility between a tandem switch and an end office switch when it is terminating a call for Sprint?

A The short answer, I think, is yes. However, we get quickly hung up on definitions and semantics. The terms "tandem switch" and "end office switch" and "transport" and "loop" are reflective of the way the telephone system existed yesterday rather than the way that new entrants and forward-looking incumbents would build their network today; reflective, you know, largely through the old interexchange access rate structure versus the new competitive local rate structure as contemplated by the Act.

So certainly MCI is performing a tandem function, an end office switching function, all of which we hope to be compensated for.

Q Is that tandem switching and end office

switching accomplished by the same switch?

A Once again, we get into semantics. I would have to say "maybe" is the answer to that question, because our switch is a distributed switch. You can't just -- you know, in the old architecture, you could go to a building, go to a room and point at some boxes and say that is the switch, you know.

In the modern technology, the switch is actually distributed. So the actual line card, for example, in the switch that hooks to the twisted pair that goes to your house may be in a thousand different buildings in a given area. We distribute it out close to the customer. So the functionality doesn't reside in one location, but is actually -- you know, whether you call it one switch or a thousand switches, then is debatable.

Q Does the FCC rules apply a different charge for direct transport than for shared transport?

A I need to make sure what you mean by direct and shared transport.

Q Well, I was going to ask you. Can you define direct transport for me?

A The way I define it is a shared transport. For example, if I wanted to buy shared transport between your end office switch and your tandem switch,

my customers would be routed on a facility along with lots of other customers that would also be routed along that same facility, and you would charge me some rate for that.

A dedicated transport would be MCI would come to you and say, I don't want my customers on a shared facility along with everybody else's customers, I want you to dedicate so much capacity to me that I pay a flat rate for, and whether I use it or not, between those two locations.

So -- and it's, I guess, up to MCI and how much traffic we think we have and how much risk, you know, that we are willing to accept would determine which of those two that we would select.

Q In the case of Sprint when it's terminating a call to MCI for completion, can Sprint request either dedicated transport or shared transport?

A To be honest, I haven't thought of it, but I think yes, you could.

Q And what facility would MCI use to provide dedicated transport to Sprint in that situation? Where would the facility begin and where would it end?

A It would begin at the network interconnect point between MCI and Sprint, wherever that may be; most likely a collocation, you know, Sprint office,

and en route across the MCI SONET ring facilities to the end user.

Q So this transport would go directly from the interface point directly to the end user, if we ask for dedicated transport?

A Yes; to the digital line unit serving the end user.

Q And where is this digital line unit that's serving the end user?

A And that could be, like I said, you know, in a mature network perhaps in a thousand locations. It would be most likely in the building, or the office park or something that serves, you know, where that customer is located, in the case of a business customer. You know, a residential customer, it would probably be some sort of a facility in the neighborhood, you know, or apartment complex or something like that.

Q It's similar to a remote terminal in the Sprint network?

A I don't know.

Q You're not a telephone engineer, are you, Mr. Murphy?

A Well, I do that work, yes.

Q Let me ask it a different way. Have you

ever worked for a local exchange company?

A No, I have not.

Q Are you familiar at all with the way in which Sprint provides its facilities in the state of Florida for outside plant purposes?

A I have a general understanding of how Sprint and all of the incumbent LECs provide facilities. I do not have any specific detail about Sprint, though, in Florida.

Q Well, let me ask you the question again. Would you please tell me what physical facility MCI will provide that would fit the definition of transport, as defined by the FCC?

A You would tell me how much dedicated transport you would want. We would then provision a circuit of that band width, you know, as you requested to that end facility that serves the customer, and dedicate that to you. You know, I'm not really sure what you're asking.

Q Well, I'm trying to figure out if we're talking about a local loop or we're talking about what would be technically described as a trunk or transport facility.

A Correct.

Q Now, your tandem switch, does it have ports?

It obviously must have ports, doesn't it?

A Yes, except the ports, as I said, by and large are kind of distributed out into the network rather than residing on a main frame switch somewhere.

Q And what kind of facilities does MCI deploy to get from the main frame of the tandem switch to these remote locations?

A Usually a SONET fiber-optic ring.

Q And would these be considered trunk facilities? Would they come off the trunk side of that switch?

A It could be either the trunk side or the line side, depending on the product that the customer requested.

Q And they would be terminated on some facility out in the -- near the customer; isn't that correct?

A Correct.

Q And would these be these remote digital line units that you've talked about?

A Yes.

Q And when that facility plugs into the RDLU, or the remote digital line unit, what side of the RDLU does it come in on? Does it come in on a trunk side or a line side?

A A trunk side.

Q So you're, in effect, classifying this RDLU as a switch?

A Yes, because the definition of a switch is a device that takes many lines from many different users and concentrates them -- or switches individual users onto specific trunks. For example, if the customer wants to call their long distance carrier and they dial 1+, they would be routed to a trunk that goes to MCI or AT&T, or whoever their selected carrier is; similarly, to a 911 tandem or operator services platform or to another caller in that area.

So given that definition of what switching is, certainly those devices are doing that function, yes.

Q And the RDLU, does that have number recognition capability?

A The RDLU, does it have number recognition capability? The RDLU queries a centralized database for number translation.

Q So, this in, effect, is a remote off of a host switch?

A You could say that. Using, I think, your terminology, yes.

Q But MCI intends to use this as a

switching -- as a switch, the RDLU?

A It's optional, yes; but the answer is yes.

Q And I believe you've indicated that you will use this RDLU as an access point to access the interexchange carrier?

A On the customer's side, yes.

Q What do you mean "on the customer's side"?

A We're not going to put these in interexchange carrier facilities. They go next to the customer. That then routes that customer onto a trunk group that carries large groups of customers to an interexchange carrier.

Q Will this RDLU serve more than one customer in a location?

A Most likely, yes.

Q And will you use this RDLU to access enhanced services?

A Could you define enhanced services?

Q Yes; to a 900 service, to an information services provider.

A Then certainly yes, if a customer dials a 900 number or, you know, some other number to an NISP; then they are trunked then to the appropriate port and then routed to whoever they called, yeah.

Q In the event of a call that comes from a

Sprint customer to an MCI customer that comes across the MCI network and reaches this RDLU, does MCI propose to charge Sprint for any switching that is done by that RDLU?

A Well, once again, you know, it's apples and oranges. If you keep trying to say am I going to do the same thing that you're doing in your, let's say, older network, the answer is no. I'm going to do and provision my services how the modern network should be provided, given the technology available today.

We both deliver calls to an area, so if you -- if MCI wants to place calls to any customer in the area served by your tandem switch under the old architecture, we would have handed it to your tandem and then you would get it to whatever customer sub-tended that tandem.

Similarly, if Sprint hands a call to MCI, we are going to get it to whatever MCI customer is in an area that is probably greater than the area served by your tandem using our distributed architecture. So, you know, the functionality is exactly the same. It's just we're using today's most efficient network to do it.

Q Is MCI going to charge interexchange carriers for access?

A I believe so, but that's probably a question better asked another witness.

Q Well, do you know how you would provide access to an interexchange carrier?

A Physically I know how.

Q Well, tell me physically how you would do it.

A We would probably connect, collocate with the interexchange carrier's facility no different than we intend to interconnect with Sprint's facility.

Q And would you provide access any differently than Sprint would provide access to an interexchange carrier?

A I don't know.

Q You don't know whether MCI would charge AT&T for example, for a termination of a call to an MCI customer, local customer, carrier common line charge?

A I don't know, but I'm sure one of the other witnesses do.

Q Does MCI plan to collocate these RDLUs in Sprint central offices or wire centers?

A If permitted, we would like to do that, yes.

Q But these RDLUs, I believe you've indicated, provide a switching function, and you're going to use them as a switch?

A That would be our preference, to use them as a switch, yes, sir; and the reason why that would be our preference is because whereas we try to engineer the fiber-optic ring between the Sprint network and the MCI network as very reliable, there's always a small percentage of chance that that link would be cut; and if it is cut, then we would like the switching function within the RDLU to be able to complete 911 calls, for example, to those MCI customers where we buy unbundled loops from Sprint.

Without that switching function enabled, they wouldn't be able to do so, and we feel that it's in the public interest to allow that to happen.

Q Are you aware that Sprint has on file and in effect in Florida a collocation tariff that prohibits the placement of facilities that do switching in its collocated space?

A Yes.

Q Did MCI protest that tariff when it was filed?

A I don't know.

Q So under Sprint's current tariffs, you could not place the RDLU in a collocation -- collocated space with Sprint if you could not certify that it would not do switching; isn't that correct?

A If what you say is true, that is correct. The RDLU can also be optioned to not do switching and just a concentration function, which would be the second preference that we would have; but of course you have that 911 issue that we would really like to keep on the table and make sure that we can do that for those customers.

Q And don't you also have the transport compensation issue if that RDLU is not used as a switch?

A I don't think I follow you. Sorry.

Q Well, I've asked you about dedicated transport. Tell me about how MCI would provide shared transport and how it would calculate the charges for shared transport.

A Basically, you know, we both build network to a meet point, some interconnect point between the networks, and then we pay a proportional transport charge based on who built what; you know, what proportion of that interconnect facility was paid for by which company. And once we have the interconnect in place, then you get to the reciprocal compensation issue that we've already discussed.

Q And I'm still discussing that, and what I'm trying to find out is how will you charge Sprint for a

shared transport between -- on the customer's side of the tandem? What distances will be involved?

A I'm not sure.

Q You're not sure whether -- what I'm trying to find out --

A I mean, I think it's an economic question rather than a technical question, and so that's why I need to default to my economic witness, I believe.

Q You don't know whether the transport charge is distance sensitive?

A No, I don't.

Q If it is distance sensitive, would the calculation of the charge be from the tandem to the end user, or would it be from the tandem to some other point?

A Again, I'd have to say I don't know, but I think in the spirit of reciprocal compensation, I think we would do whatever you charged us.

Q But if the charges that Sprint is charging to MCI is based upon a distance calculation, how could we charge -- how could you charge us the same thing if the distances are different?

A Well, hypothetically, then there would be a per mile charge, and if the distances are different, then the charges would be different; and I say

hypothetically because I don't know that that's what we're doing.

Q Well, aren't you the witness here testifying as to why mutual compensation is appropriate?

A Yes, sir, from a technical standpoint.

Q And that's what -- all I'm trying to do is find out technically how this is provided. Can we physically identify a facility that MCI provides that meets the definition of a transport facility?

A Well, a transport facility -- if you could allow me to just throw out some definitions here so that I can answer more correctly. For example, in your network you have given the example of that facility between the tandem switch and the end office switch, and that is a facility that you need to engineer for peak traffic loads and demands of the customers, which maybe vary by hour of day or by season or other factors, as opposed to the local loop which is by and large that twisted pair between some LEC end office and a customer's telephone, that when the phone is on hook is not in use at all, and when the phone is off hook or, you know, has been picked up, it is 100% in use. So that local loop is 100% dedicated to a particular customer.

So those facilities between the MCI switches

and hub sites, the SONET ring that I've discussed down to all of those multiple end user locations fits the definition of transport in that we have to engineer for peak traffic loads based on all of the customers that are being served by that SONET ring. It is not dedicated to individual customers as a local loop is.

So the local loop in the MCI network may be a piece of wire that's 50 feet long, you know, between our digital line unit and the customer's telephone, but we are having to traffic engineer the transport between the host switch and the digital line unit just as you do between the tandem and your end office switch. That's one of the key differences in the architecture that we're talking about.

Q I think we agreed earlier that MCI can directly interconnect with the Sprint end office for transport purposes rather than going through the tandem; isn't that correct?

A That's correct.

Q Can Sprint, by the same token, directly connect on the dedicated facility to the RDLU and not go through the MCI tandem switch?

A If the Sprint equipment is compatible with the RDLU, I don't see why not. It has functionality called multihosting that's designed -- you know, it

was designed just to allow the single RDLU to interconnect with more than one switch, and this is exactly how -- there's a very small percentage of lines in the RBOC networks, for example, that I'm more familiar with that are being delivered on this next generation technology, and that's exactly how we would propose those RBOCs makes those loops available to MCI and the other competitors, by directly -- allowing us to directly connect our switches to those line units.

Q In the situation that you just described where Sprint does interconnect with MCI, delivers the traffic to the RDLU, what charge will MCI make to Sprint for that call? Will they charge both a tandem and an end office switch, or which switching will it charge Sprint?

A In that case I would think that once again in the spirit of symmetry and reciprocity, that it would be equivalent charges to a direct termination in the Sprint model.

MR. FONS: We have no further questions.

CHAIRMAN CLARK: Staff?

MR. KEATING: Staff has no questions for the witness.

CHAIRMAN CLARK: Redirect?

MS. McMILLIN: No redirect.

CHAIRMAN CLARK: Thank you very much, Mr. Murphy. You're excused.

(Witness Murphy excused.)

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CHAIRMAN CLARK: We'll go ahead and take a ten-minute break and begin with Mr. Cabe.

(Brief recess; 10:45 a.m.)

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