

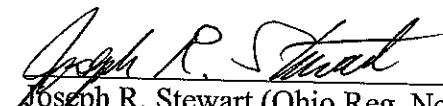
**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Petition of)	
Communication Options, Inc. for Arbitration)	
of Interconnection Rates, Terms and)	
Conditions and Related Arrangements with)	Case No. 08-45-TP-ARB
United Telephone Company of Ohio dba)	
Embarq Pursuant to Section 252(b) of The)	
Telecommunications Act of 1996)	

**ARBITRATION PACKAGE OF UNITED TELEPHONE
COMPANY OF OHIO DBA EMBARQ**

United Telephone Company of Ohio dba Embarq submits its arbitration package consisting of the direct testimony of Ted Hart, Mike Maples, and Christy Londerholm. Ms. Londerholm's testimony includes both a public and confidential version.
Embarq's order of witnesses will be: Mr. Maples, Mr. Hart, and Ms. Londerholm.

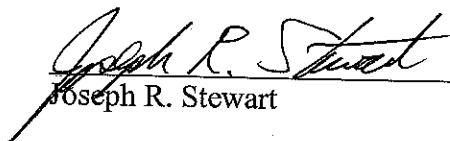
Respectfully submitted,



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CERTIFICATE OF SERVICE

I certify that a true copy of Embarq's Arbitration Package was hand-delivered,
sent via e-mail, or served via first class mail, postage prepaid, this 24th day of June 2008
to the persons listed below.



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DIRECT TESTIMONY OF

JAMES M. MAPLES

ON BEHALF OF UNITED TELEPHONE COMPANY OF OHIO

1 **SECTION I—INTRODUCTION**

2

3 **Q. Please state your name, title and business address.**

4 **A.**My name is James M. “Mike” Maples. I am employed as Regulatory Manager for
5 Embarq Management Company, which provides management services to United
6 Telephone Company of Ohio d/b/a Embarq (“Embarq”). My business address is 5454
7 W. 110th Street, Overland Park, KS 66211.

8

9 **Q. Please summarize your educational and professional background.**

10 **A.**I have over 39 years of experience in the telecommunications industry ranging from
11 the actual installation and maintenance of telecommunications networks, demand
12 forecasting, financial modeling, costing, regulatory reporting, retail and wholesale
13 product development, contract negotiations, process re-engineering, systems
14 development, and public policy formation. My career began in 1968 when I was
15 employed by Sprint/United Telephone Company of Texas as an installer/repairman of
16 residential, simple and complex business systems and later as a central office
17 switchman. During that same period I earned a Bachelor of Science degree from East
18 Texas State University, Commerce, Texas, with majors in mathematics and industrial
19 technology. After graduating in December 1973, I entered the company’s
20 Management Training program and upon completion was promoted to the position of
21 Revenue Requirement Analyst in 1974.

22

1 For the next seventeen (17) years, I held positions of increasing responsibilities in
2 state, regional and corporate Sprint organizations. During that period, I prepared or
3 was responsible for jurisdictional separation studies, revenue budgets, demand
4 forecasts, access charge rates, and financial reporting to various regulatory agencies.
5

6 From 1991 through 1995, as Manager Cost Allocations at Sprint/United Management
7 Corporation, I developed financial models for alternative regulation, participated in a
8 two year project to develop a system-wide product costing model, developed and
9 trained personnel on revenue budget models, and standardized systems for separations
10 costing through system design, development, testing and implementation.
11

12 In 1995, I accepted the position of Manager-Pricing/Costing Strategy and for 17
13 months coordinated several system-wide teams that were charged with the
14 identification and development of methods, procedures, and system changes required
15 to implement local competitive services. During that period, I coordinated the
16 technical support needed to establish and maintain relationships with competitive local
17 exchange carriers ("CLECs").
18

19 From September 1996 through July 1999 I held the position of manager of
20 Competitive Markets – Local Access with the responsibility for pricing unbundled
21 network elements, supporting negotiations with new competitive carriers, and assisting
22 in implementation issues.
23

1 I began my current position in August 1999. My responsibilities include the review of
2 legislation, court rulings and Federal Communications Commission ("FCC") and state
3 Commission orders affecting telecommunications policy, interpreting the impact to the
4 corporation, developing policy positions, communicating them throughout the
5 organization, and representing them before regulatory bodies such as the Public
6 Utilities Commission of Ohio.

7
8 **Q. Are you an attorney?**

9 **A.** I am not an attorney and my review and interpretation of federal and state statutes,
10 rules, orders, and other applicable rulings is from the perspective of an informed
11 member of the public and an industry veteran, for the formulation of policy.
12

13 **Q. Have you testified before any regulatory commissions?**

14 **A.** Yes. I have testified before the Ohio, Missouri, Florida, Nevada, Pennsylvania,
15 Minnesota, and California regulatory commissions regarding a variety of issues
16 including number portability, intercarrier compensation, network unbundling, and
17 network interconnection.
18

19 **Q. What is the purpose of your Direct Testimony?**

20 **A.** The purpose of my Direct Testimony is to support Embarq's positions on issues 1, 8,
21 9, 10, 11, and 12.
22

1 **Q. Please summarize your Direct Testimony.**

2 **A. My Direct Testimony will show that the terms and conditions proposed by**
3 Communications Options, Inc. ("COI") with respect to line conditioning are
4 inconsistent with current federal regulations and a long history of orders where the
5 FCC has consistently determined that Incumbent Local Exchange Carriers ("ILECs")
6 such as Embarq can charge CLECs for conditioning copper loops. DS1 loops can be
7 provisioned on copper loops and conditioning may or may not be required depending
8 upon the specific circumstances such as the length of the loop and gauge of the copper
9 cable. It is also unnecessary to remove all bridge taps from a copper loop in order for
10 services such as xDSL ("Digital Subscriber Line") to be provisioned over that loop.

11
12 My testimony will also show that when a CLEC orders Loop Make-up Information the
13 CLEC is buying access to an unbundled network element for which Embarq can
14 charge TELRIC pricing.

15
16 And finally, the Commission has already determined that CLECs are limited to ten
17 (10) DS1 dedicated circuits for a single transport route between Embarq wire centers.
18 The terms and conditions proposed by COI increasing the limit to twenty (20) is in
19 direct contradiction with this Commission's prior finding as well as the plain reading
20 of the relevant federal regulation. The Commission should reject the terms and
21 conditions proposed by COI and adopt those put forth by Embarq.

22

23

1 **SECTION II – UNRESOLVED ISSUE DISCUSSION**

2

3 **Issue 1: Definitions**

4

5 **Embarq Issue 1 Presented:** What is the appropriate definition of a DS1 Loop?

6

7 **Embarq Proposed Definition**

8 1.42 “DS1 Loop” is a digital Local Loop having a total digital signal speed of 1.544
9 megabytes per second. DS1 Loops include, but are not limited to, two-wire and
10 four-wire Copper Loops capable of providing high-bit rate digital subscriber line
11 services, including T1 services.

12

13 **COI Proposed Definition**

14 1.42 “DS1 Loop” is a digital Local Loop having a total digital signal speed of 1.544
15 megabytes per second. DS1 Loops include, but are not limited to, two-wire and
16 four-wire Copper Loops capable of, because of included line conditioning,
17 providing high-bit rate digital subscriber line services, including T1 services

18

19 **Q. What is the disagreement between the Parties?**

20 **A.** The two definitions are identical with the exception of the double underlined phrase
21 added by COI, “because of included line conditioning”. The phrase is unnecessary,
22 and COI’s definition is inconsistent with the one adopted by the FCC.

23

1 **Q. Why is the phrase unnecessary?**

2 **A.**The primary issue is whether Embarq can charge COI for any line conditioning that it
3 must perform in order to provision a DS1 unbundled loop. COI is seeking to
4 indirectly address that issue by adding the phrase "because of included line
5 conditioning" in the definition of DS1 loop. Whether conditioning charges apply to a
6 DS1 loop is explicitly addressed in Issues 9 and 15, and there is no need to replicate it
7 multiple times in the terms and conditions of the agreement.

8
9 **Q. What is the definition of a DS1 loop adopted by the FCC?**

10 **A.**The FCC definition is:

11
12 A DS1 loop is a digital local loop having a total digital signal speed of 1.544
13 megabytes per second. DS1 loops include, but are not limited to, two-wire and
14 four-wire copper loops capable of providing high-bit rate digital subscriber line
15 services, including T1 services.¹

16
17 The definition proposed by Embarq is identical to the FCC's definition. The
18 Commission should reject the additional phrase proposed by COI as superfluous.

19
20 **Q. Do all DS1 loops have to be conditioned?**

21 **A.**No. Please see my response to Issue 9 where I address the applicability of
22 conditioning charges to DS1 loops.

¹ Title 47 Code of Federal Regulations §51.319(a)(4).

1

2 **Issue 8: Loops**

3

4 **Embarq Issue 8 Presented:** What terms and conditions should govern the
5 availability of DS1 loops?

6

7 **Embarq Proposed Language**

8 45.6.1 Subject to the cap in Section 45.6.2, Embarq will provide CLEC
9 nondiscriminatory access to a DS1 Loop on an unbundled basis to any
10 building not served by a Wire Center with at least 60,000 Business Lines and
11 at least four Fiber-based Collocators. Once a Wire Center exceeds both of
12 these thresholds, no future DS1 loop unbundling will be required in that wire
13 center. DS1 loops include, but are not limited to, two-wire and four-wire
14 Copper Loops capable of providing high-bit rate digital subscriber line
15 services, including T1 services. The Wire Centers that meet these
16 requirements as of the date of this Agreement are listed on Exhibit A.

17

18 **COI Proposed Language**

19 45.6.1 Subject to the cap in Section 45.6.2, Embarq will provide CLEC
20 nondiscriminatory access to a DS1 Loop on an unbundled basis to any
21 building not served by a Wire Center with at least 60,000 Business Lines and
22 at least four Fiber-based Collocators. Once a Wire Center exceeds both of
23 these thresholds, no future DS1 loop unbundling will be required in that wire

1 center. DS1 loops include, but are not limited to, two-wire and four-wire
2 Copper Loops capable of, because of included line conditioning, providing
3 high-bit rate digital subscriber line services, including T1 services. The Wire
4 Centers that meet these requirements as of the date of this Agreement are
5 listed on Exhibit A.

6
7 **Q. What is the difference in the terms and conditions proposed by the Parties?**

8 **A.** COI has once again added the phrase "because of included line conditioning" in an
9 attempt to indirectly address the conditioning issue. Both sets of terms and conditions
10 contain the second sentence in the definition of a DS1 loop adopted by the FCC,
11 namely, "DS1 loops include, but are not limited to, two-wire and four-wire Copper
12 Loops capable of providing high-bit rate digital subscriber line services, including T1
13 services." COI has attempted to embed the phrase within the FCC definition.

14
15 **Q. What is your recommendation with respect to this issue?**

16 **A.** The Commission should reject the change proposed by COI as unnecessary for the
17 same reasons as outlined in my discussion of Issue 1 above. The partial definition of
18 DS1 loop is unnecessary to Section 45.6.1, and Embarq would not be opposed to
19 striking the entire sentence.

20
21 **Issue 9: Loop Make Up Information**

22
23 **Embarq Issue 9 Presented: Can Embarq charge for conditioning a DS1 loop?**

1

2 Embarq Proposed Language

3 48.6.3 If Embarq undertakes Conditioning activity for a particular loop to provide for
4 the successful installation of advanced services, CLEC will pay applicable
5 conditioning charges as set forth in Table One pursuant to Section 54.3 of this
6 Agreement.

7

8 COI Proposed Language

9 48.6.3 Other than for DS 1 loops, if Embarq undertakes Conditioning activity for a
10 particular loop to provide for the successful installation of advanced services,
11 CLEC will pay applicable conditioning charges as set forth in Table One
12 pursuant to Section 54.3 of this Agreement.

13

14 **Q. What is the dispute between the Parties?**

15 **A.** COI seeks to deny Embarq the ability to charge for line conditioning when Embarq
16 provisions a DS1 loop for COI. It does so by adding the phrase "Other than for DS1
17 loops" to the terms originally proposed by Embarq. Embarq disagrees.

18

19 **Q. What is line conditioning?**

20 **A.** The FCC adopted the following definition of line conditioning:

21 Line conditioning is defined as the removal from a copper loop or copper
22 subloop of any device that could diminish the capability of the loop or subloop
23 to deliver high-speed switched wireline telecommunications capability,

1 including digital subscriber line service. Such devices include, but are not
2 limited to, bridge taps, load coils, low pass filters, and range extenders.²
3

4 Line conditioning is an activity that is undertaken by Embarq to modify or adjust the
5 physical attributes of a copper loop so that the loop can be used to provide advanced
6 services such as xDSL.
7

8 **Q. What is a bridge tap?**

9 **A.** A copper loop or line may appear in several locations, similar to branches on a tree.
10 Some of these "branches" may be located between the originating and terminating
11 points of a circuit (wire center and end user subscriber's premises). These branches
12 can affect the ability of the loop to be used for certain services, such as xDSL, and
13 where such branches are unused and adversely affect the service they must be
14 disconnected from the circuit.
15

16 **Q. What are load coils, low pass filters, and range extenders?**

17 **A.** A load coil is a device that is added to long loops to compensate for electrical loss and
18 to enable voice service. A low pass filter is used to restrict the frequency range of a
19 loop. A range extender boosts the power on very long loops to compensate for the
20 electrical loss. Each of these devices can interfere with digital circuits such as xDSL,
21 and therefore must be removed prior to installing xDSL on a loop.
22

² Title 47 Code of Federal Regulations §51.319(a)(1)(A).

1 **Q. Is line conditioning limited to copper loops?**

2 **A. Yes.**

3

4 **Q. Did the FCC state that Incumbent Local Exchange Carriers ("ILECs") such as**
5 **Embarq could charge for line conditioning?**

6 **A. Yes. The FCC first determined that ILECs could charge CLECs for line conditioning**
7 **in the very first Local Competition Order. Specifically, the FCC stated:**
8 **(with emphasis added):**

9

10 Our definition of loops will in some instances require the incumbent LEC to
11 take affirmative steps to condition existing loop facilities to enable requesting
12 carriers to provide services not currently provided over such facilities. For
13 example, if a competitor seeks to provide a digital loop functionality, such as
14 ADSL, and the loop is not currently conditioned to carry digital signals, but it
15 is technically feasible to condition the facility, the incumbent LEC must
16 condition the loop to permit the transmission of digital signals. Thus, we reject
17 BellSouth's position that requesting carriers "take the LEC networks as they
18 find them" with respect to unbundled network elements. As discussed above,
19 some modification of incumbent LEC facilities, such as loop conditioning, is
20 encompassed within the duty imposed by section 251(c)(3). **The requesting**

1 carrier would, however, bear the cost of compensating the incumbent
2 LEC for such conditioning.³

3
4 The FCC reaffirmed its decision in 1999 in its Third Report and Order and once again
5 in the Triennial Review Order in 2003. The current FCC regulations regarding
6 conditioning state:

7
8 Incumbent LECs shall recover the costs of line conditioning from the
9 requesting telecommunications carrier in accordance with the Commission's
10 forward-looking pricing principles promulgated pursuant to section 252(d)(1)
11 of the Act and in compliance with rules governing nonrecurring costs in Sec.
12 51.507(e).⁴

13
14 **Q. Are DS1 loops provisioned on copper loops?**

15 **A. Some DS1 loops are provisioned on copper loops. The definition of DS1 loop**
16 **adopted by the FCC, as discussed above, acknowledges this fact by including the**
17 **sentence, "DS1 Loops include, but are not limited to, two-wire and four-wire Copper**
18 **Loops capable of providing high-bit rate digital subscriber line services, including T1**
19 **services."**

20

³ See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 96-98 and CC Docket No. 95-185, First Report and Order, Released August 8, 1996, "Local Competition First Report and Order", ¶382.

⁴ Title 47 Code of Federal Regulations §51.319(a)(1)(B).

1 **Q. Do all DS1 loops have to be conditioned?**

2 **A. Absolutely not. If the loop is short, with limited bridge taps, and does not have any**
3 **devices such as load coils connected to it, it is possible to provision a DS1 loop using**
4 **High Speed Digital Subscriber Line (“HDSL”) technology. In addition, the presence**
5 **of fiber for a segment of a loop as in the case of hybrid loops extends the reach and**
6 **can impact the need for conditioning. The need for conditioning varies depending**
7 **upon the specific circumstances of the DS1 loop that is ordered.**

8

9 **Issue 10: Dedicated Transport**

10

11 **Embarq Issue 10 Presented: What is the maximum number of DS1 dedicated**
12 **transport circuits that a CLEC can lease on a single route?**

13

14 **Embarq Proposed Language**

15 50.2.2 CLEC may obtain a maximum of ten unbundled DS1 dedicated transport
16 circuits on each route where DS1 dedicated transport is available on an
17 unbundled basis.

18

19 **COI Proposed Language**

20 50.2.2 CLEC may obtain a maximum of ~~ten~~ twenty (20) unbundled DS1 dedicated
21 transport circuits on each route where DS1 dedicated transport is available on
22 an unbundled basis.

23

1 **Q. What is the issue in dispute?**

2 **A. Embarq and COI disagree over how many DS1 dedicated transport circuits that COI**
3 may obtain for a single route. The terms originally proposed by Embarq accurately
4 reflect the limit of 10 DS1 circuits that is included in the FCC regulations. As shown
5 above, however, COI has arbitrarily changed the limit to 20.

6
7 **Q. What is the relevant FCC regulation?**

8 **A. The FCC adopted the following regulation in the Triennial Review Remand Order:**

9
10 Cap on unbundled DS1 transport circuits. A requesting telecommunications
11 carrier may obtain a maximum of ten unbundled DS1 dedicated transport
12 circuits on each route where DS1 dedicated transport is available on an
13 unbundled basis.⁵

14
15 The regulation is not ambiguous and clearly states that the limit or the “cap” is a
16 “maximum” of ten unbundled DS1 dedicated transport circuits. The terms proposed
17 by Embarq mirror the FCC regulation.

18
19 **Q. What is a route?**

20 **A. The FCC has defined a route as:**

21

⁵ Title 47 Code of Federal Regulations §51.319(e)(2)(ii)(B).

1 A "route" is a transmission path between one of an incumbent LEC's wire
2 centers or switches and another of the incumbent LEC's wire centers or
3 switches. A route between two points (e.g., wire center or switch "A" and
4 wire center or switch "Z") may pass through one or more intermediate wire
5 centers or switches (e.g., wire center or switch "X"). Transmission paths
6 between identical end points (e.g., wire center or switch "A" and wire center
7 or switch "Z") are the same "route," irrespective of whether they pass through
8 the same intermediate wire centers or switches, if any.⁶

9
10 A route is simply a circuit between two Embarq wire centers. It is defined by the
11 originating and terminating points of the circuit.
12

13 **Q. Has the Ohio Commission previously addressed this issue?**

14 **A.** Yes. The Ohio Commission addressed this issue in an arbitration proceeding between
15 SBC Ohio and several CLECs in case number 05-887-TP-UNC.
16

17 **Q. What did the Commission decide?**

18 **A.** The Commission agreed that the FCC regulation limited the number of DS1 dedicated
19 circuits on a single route to ten:

20 The FCC is clear in 47 C.F.R. §51.319(e)(2)(ii)(B) and in its
21 explanation found in ¶128 of the TRRO. We interpret the FCC's rule
22 to be when impairment exists such that the incumbent LEC must

⁶ Title 47 Code of Federal Regulations §51.319(e).

1 provide DS1 transport circuits as an unbundled element, the FCC
2 limits the competitive LECs' availability to DS1 transport circuits to
3 ten circuits.⁷
4

5 **Q. Should the Commission modify the current FCC rule?**

6 **A.** I do not recommend it. The FCC discussed the role of the states in the Triennial
7 Review Order ¶¶191-196 and declared that if a state modified the federal regime in
8 such a way that it conflicted with the federal regime, the aggrieved party could petition
9 the FCC for a declaratory ruling (¶195). BellSouth took this approach when several
10 state commissions ordered it to provide stand alone DSL service over the same loops
11 that CLECs used to provide voice services and the FCC overturned the state
12 decisions.⁸
13
14

15 **Issue 11: Modifications to Embarq's Existing Network**
16

17 **Embarq Issue 11 Presented: What is the definition of a conditioned loop?**

18 **Embarq Proposed Language**

19 54.3.1 Conditioned loops are loops from which excessive bridge taps, load coils, low-
20 pass filters, range extenders, and similar devices have been removed to enable

⁷ PUCO Case Number 05-887-TP-UNC, Arbitration Award (November 19, 2005) at 55.

⁸ See *In the Matter of BellSouth Telecommunications, Inc. Request for Declaratory Ruling that State Commissions May Not Regulate Broadband Internet Access Services by Requiring BellSouth to Provide Wholesale or Retail Broadband Services to Competitive LEC UNE Voice Customers*, WC Docket No. 03-251, Memorandum Opinion and Order and Notice of Inquiry, released March 25, 2005.

1 the delivery of high-speed switched wireline telecommunications capability,
2 including DSL. Embarq will condition loops at CLEC's request and will
3 assess charges for loop conditioning in accordance with the prices listed in
4 Table One. Embarq recommends that CLEC utilize the Loop Make-Up
5 process in Section 48 prior to submitting orders for loops intended for
6 advanced services.

7 COI Proposed Language

8 54.3.1 Conditioned loops are loops from which excessive bridge taps, load coils, low-
9 pass filters, range extenders, and similar devices have been removed to enable
10 the delivery of high-speed switched wireline telecommunications capability,
11 including DSL. Embarq will condition loops at CLEC's request and will
12 assess charges for loop conditioning in accordance with the prices listed in
13 Table One. Embarq recommends that CLEC utilize the Loop Make-Up
14 process in Section 48 prior to submitting orders for loops intended for
15 advanced services.

16 **Q. What is the disagreement between Embarq and COI?**

17 **A.** The definition offered by Embarq recognizes that some advanced services can be
18 provisioned over loops with some bridge taps and therefore includes the modifier
19 "excessive" before the word bridge taps in the first sentence. COI has struck through
20 the word "excessive" essentially mandating that Embarq remove each and every
21 bridge tap when it conditions a loop. This amount of conditioning is simply not
22 necessary.

1 **Q. Why do you say that the removal of all bridge taps is not necessary for some**
2 **services?**

3 **A.**There are many standards documents related to specific services such as xDSL that
4 discuss the amount of bridge tap that may be present on a loop based on the total
5 length, gauge of the loop, and other factors. For example, the current version of the
6 Telecordia Notes on the Network discusses various methods for designing outside
7 plant facilities and whether bridge taps can be present when services such as xDSL are
8 provisioned on those facilities. The document states that some bridge tap is
9 acceptable. Another example is the current ANSI (“American National Standards
10 Institute”) standard on ADSL Metallic Interfaces (T1.PP.413-2004). The document
11 states that bridge taps are acceptable in all but a few unusual circumstances.

12
13 **Q. Are these standards relevant with respect to DS1 loops?**

14 **A.**Yes. Furthermore, the language of the Interconnection Agreement (“ICA”) which is
15 in dispute is not limited to DS1 loops.

16
17 **Q. Is this position consistent with how Embarq conditions its own circuits?**

18 **A.**Yes, Embarq understands its obligations to provide CLECs the same level of service
19 that Embarq provides itself, and does so. Embarq will provide the CLEC the
20 appropriate level of conditioning. In fact, CLECs are able to request the necessary
21 level of conditioning as part of the loop pre-qualification process (see Issue 12).
22 Providing more conditioning than is needed benefits neither party. Embarq’s

1 technicians would be performing unnecessary work functions, and COI would be
2 billed for that work.

3

4 **Q. Has the FCC adopted a definition of a conditioned loop?**

5 **A.** No. The FCC has not adopted a formal definition of a conditioned loop; however, the
6 definition of line conditioning can be used as a good proxy.

7

8 Line conditioning is defined as the removal from a copper loop or copper
9 subloop of any device that could diminish the capability of the loop or subloop
10 to deliver high-speed switched wireline telecommunications capability,
11 including digital subscriber line service. Such devices include, but are not
12 limited to, bridge taps, load coils, low pass filters, and range extenders.⁹

13

14 A conditioned loop is therefore a copper loop that has had devices removed from it so
15 that the copper loop can be used to deliver high-speed switched wireline
16 telecommunications.

17

18 **Q. Does the FCC state that every device must be removed?**

19 **A.** No. I've reviewed several FCC orders and have not found any reference mandating
20 that every device be removed. In supporting its decision to order ILECs to unbundle
21 mass market loops the FCC stated:

22

⁹ Title 47 Code of Federal Regulations §51.319(a)(1)(A).

1 Because these loops are already deployed, they are available
2 immediately for providing narrowband services (*i.e.*, voice, fax,
3 dial-up Internet access) and available after performing **any**
4 **necessary** line conditioning for providing broadband service.¹⁰
5 (Emphasis added.)
6

7 It should be obvious that it is unnecessary to remove all bridge taps for every service
8 based on the evidence regarding industry standards and therefore it would be
9 unnecessary for the FCC to specifically address the question. The amount of
10 conditioning should vary based on the service to be delivered over the loop and the
11 characteristics of the loop itself.
12

13 **Issue 12: Modifications to Embarq's Existing Network**
14

15 **Embarq Issue 12 Presented:** Can ILECs charge CLECs for Loop Make-Up
16 **information?**
17

18 **Embarq Proposed Language**

19 The terms proposed by COI, as shown below, do not appear within Embarq's standard
20 ICA and they should be rejected.

¹⁰ See *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 01-338, CC Docket No. 96-98, CC Docket No. 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, Released August 23, 2003, "Triennial Review Order", ¶238.

COI Proposed Language

54.3.2 If CLEC orders Loop Make-Up Information for DS1 loops prior to placing an order and conditioning is necessary to implement, loop conditioning charges will not apply. This waiver is exclusively on DS1 loops.

Q. What is the issue?

A. COI has proposed terms and conditions that would force Embarq to provide Loop Make-Up information upon request, at no charge. COI has limited its proposal to DS1 loops; however, there is no obligation in the Act or federal regulations that require ILECs such as Embarq to provide services free of charge.

Q. What is Loop Make-Up Information?

A. Loop Make-Up information consists of technical details on a specific loop that can be used to determine what services can be provided over the loop. Examples of this information include: "(1) the composition of the loop material, including, but not limited to, fiber optics, copper; (2) the existence, location and type of any electronic or other equipment on the loop, including but not limited to, digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; (3) the loop length, including the length and location of each type of transmission media; (4) the wire gauge(s) of the loop; and (5) the electrical parameters of the loop, which may

1 determine the suitability of the loop for various technologies.”¹¹ Loop make-up
2 information is provided as part of the pre-ordering function and is a subset of the
3 Operations and Support Systems (“OSS”) unbundled network element, which is
4 described in the interconnection agreement as follows:

5
6 Operations support systems. An incumbent LEC shall provide a requesting
7 telecommunications carrier with nondiscriminatory access to operations
8 support systems on an unbundled basis, in accordance with section 251(c)(3)
9 of the Act and this part. Operations support system functions consist of pre-
10 ordering, ordering, provisioning, maintenance and repair, and billing functions
11 supported by an incumbent LEC's databases and information. **An incumbent**
12 **LEC, as part of its duty to provide access to the pre-ordering function,**
13 **shall provide the requesting telecommunications carrier with**
14 **nondiscriminatory access to the same detailed information about the loop**
15 **that is available to the incumbent LEC.**¹² (Emphasis added.)
16

17 **Q. So, Loop Make-Up Information is an unbundled network element?**

18 **A. Yes.**
19

¹¹ See *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, Released November 5, 1999, “UNE Remand”, ¶427.

¹² Title 47 Code of Federal Regulations §51.319(g).

1 **Q. Has the FCC established a pricing standard for unbundled network elements?**

2 **A. Yes. Section 252(d) of the Telecom Act establishes the pricing standards for**
3 interconnection and access to network elements, which the FCC has defined as Total
4 Element Long Run Incremental Costing ("TELRIC") and codified the methodology in
5 Subpart F of Part 51.

6
7 **Q. Has the FCC ordered ILECs to provide access to unbundled network elements**
8 **without charge?**

9 **A. No, and it would be inappropriate to do so.**

10

11

12 **SECTION III: CONCLUSION**

13

14 **Q. Please summarize your Direct Testimony?**

15 **A. My direct testimony has shown that Embarq has taken a reasoned approach in dealing**
16 with COI and that the terms and conditions proposed by Embarq fully comply with
17 Embarq's obligations under the Act and federal regulations. The Commission should
18 reject the terms and conditions proposed by COI and accept those proposed by
19 Embarq.

20

21 **Q. Does this conclude your Direct Testimony?**

22 **A. Yes.**

23

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Petition of)
Communications Options, Inc. for Arbitration)
of Interconnection Rates, Terms and)
Conditions and Related Arrangements with) Case No. 08-45-TP-ARB
United Telephone Company of Ohio dba)
Embarq Pursuant to Section 252(b) of The)
Telecommunications Act of 1996.)

DIRECT TESTIMONY OF

EDWARD "TED" C. HART

ON BEHALF OF

UNITED TELEPHONE COMPANY OF OHIO,

D/B/A

EMBARQ

June 24, 2008

**DIRECT TESTIMONY
OF
EDWARD "TED" C. HART**

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, place of employment, and business address.

A. My name is Edward "Ted" C. Hart. I am employed by Embarq Management Company, which provides management services to United Telephone Company of Ohio, dba Embarq ("Embarq"). I am employed in the Wholesale Markets Division, as a Business Strategy Manager. My business address is 9300 Metcalf Avenue, Overland Park, Kansas 66212.

Q. *Generally describe your present responsibilities.*

A. I work with various interests in the Wholesale Markets division of Embarq providing input and expertise for intercarrier contract offerings, wholesale business sales and interconnection agreement issues, as well as researching and analyzing increased revenue and expense savings opportunities. I also work with our network subject matter experts analyzing network traffic flows and specific interconnection traffic issues.

Q. *What is your work experience?*

A. I practiced with a public accounting firm for seven and a half years after college specializing in audit and accounting issues for closely-held companies. Subsequent to that, I held senior financial positions with a medium-sized general contractor and with Mobile Radio Communications, Inc., a regional Commercial

1 Mobile Radio Services ("CMRS") paging telecommunications provider. In my
2 position with Mobile Radio, I spent a good deal of time with the broad scope of
3 issues that were created by the Telecommunications Act of 1996 ("Telecom
4 Act"). Those issues included intercarrier compensation issues, such as reciprocal
5 compensation, proportionate use of facilities, and rights and obligations created
6 by the Telecom Act. I managed several million dollars in annual purchasing of
7 carrier services. I developed and instituted programs that significantly lowered
8 costs related to interconnected networks, connectivity, and wholesale services
9 which also led to large increases in company profitability. I initiated and led
10 negotiations with local and long-distance carriers for interconnection agreements
11 and participated in FCC auctions of wireless spectrum, among a host of other
12 financial duties.

13 I joined Sprint Wholesale Markets in November 2000 as a Senior Manager
14 charged with negotiation of interconnection agreements with wireless carriers.
15 Since that time I have negotiated interconnection agreements with Competitive
16 Local Exchange Carriers ("CLECs") and have managed intercarrier compensation
17 disputes between Sprint's Local Telephone Division (now dba Embarq) and its
18 CLEC and Wireless vendors and customers. In connection with those disputes I
19 have also become familiar with the special considerations that affect bankrupt
20 telecommunications carriers and have managed the execution of numerous
21 settlement agreements between Embarq affiliates and their wholesale
22 interconnected customers.

23 ***Q. What is your educational background?***

1 A. I graduated from the University of Missouri at Kansas City in 1986 with a
2 Bachelor of Science in Accounting and passed the C. P. A. exam in 1989. To
3 retain the C.P.A. license, I am required to complete approximately 40 hours of
4 continuing education each year. During the course of the past 20 years I have
5 accumulated an estimated 1,100 hours of continuing education on a diverse mix
6 of professional topics, including auditing, taxation, consulting, marketing,
7 business law, telecommunications matters, financial valuation, quality
8 management, and ethics courses. In addition, I have taught courses providing
9 training for and building proficiency with specific software applications and other
10 computer-related technology.

11

12 ***Q. Have you submitted testimony before an administrative agency?***

13 A. Yes. I have testified in arbitrations and participated in mediations before Public
14 Utility Commissions in Florida, Texas, Ohio, and North Carolina. I have also
15 provided expert witness testimony in front of the Missouri Tax Commission.

16 **II. PURPOSE AND SUMMARY**

17 **Q. What is the purpose of your testimony today?**

18 A. The purpose of my testimony is to provide support for Embarq's positions
19 regarding issue 2, payment and service suspension intervals, and issue number 7
20 regarding security deposits required of CLECs and other interconnected carriers.

21

1 **III. GENERAL TERMS AND CONDITIONS**

2 **Issue 2. What is the appropriate number of days for COI to review its bill and**
3 **submit payments for services under the agreement and what amount of time should**
4 **elapse before Embarq enforces certain collection procedures and limits COI's access**
5 **into Embarq's systems.**

6

7 ***Q. What is the language that Embarq is proposing for payment terms under the***
8 ***contract and why is that period of time appropriate?***

9

10 **A. Section 7.2.3 of Embarq's proposed language states: "If an undisputed invoice is**
11 not paid within 45 days after the bill date, Embarq may suspend processing new
12 orders and cancel any pending orders." COI would like the interval to be 60 days.
13 Section 7.2.4 states: "If the account remains delinquent sixty (60) days after the
14 bill date, Embarq will terminate all services under this agreement." COI would
15 like that 60 day interval to be 90 days. A couple of points to note are that the
16 payments are due for "undisputed" amounts. That's not an accidental contract
17 construction. If a customer has reason to dispute the bill and submits a valid
18 dispute, Embarq suspends the collection processes and essentially extends the
19 payment interval on the disputed amounts while the disputes are investigated.
20 The undisputed portions remain due under the terms of the agreement. It's
21 important to understand that the provision of telephone and other
22 telecommunications services happens continuously, so each passing day that a
23 subscriber has the service causes the provider's and the subscriber's costs to
24 accrue. Wholesale telecommunications services are not like a storeroom of
25 unused raw materials waiting to enter the manufacturing process for conversion

1 into finished goods. After time passes, the value of the service provided over that
2 period of time also expires and cannot be recovered. Also, continuing action is
3 **not** required on the customer's part to incur more charges, i.e. customers do not
4 have to reorder a new shipment of services, rather the services being provided and
5 the associated charges happen with the passage of time without regard to whether
6 the services are being used or not. Unused telecommunications services that the
7 customer decides he did not need in April cannot be sold back for scrap or
8 residual value in May. For these reasons it does not make sense to extend the
9 time periods for payment of the services. Extending the payment terms allows the
10 charges to continue to accrue while the customer does nothing, and in fact it could
11 serve to weaken what may already be a weak balance sheet on the part of the
12 entity ordering service. While the customer does nothing, more services that have
13 been provided, but not paid for, continue to accrue with increasing credit risk to
14 the wholesale provider.

15 ***Q. COI states in its petition that the length of time it takes to receive Embarq's bills***
16 ***is unreasonable. What is your response to this statement?***

17 **A.** Embarq operates under tariffs that dictate that bills will be ***mailed*** on or before the
18 same date of each month.¹ An internal benchmark used by our billing groups
19 makes this date within 7 days of the invoice date. Although the provision of
20 service under the interconnection agreement is not governed directly by tariffs
21 with respect to all services rendered, Embarq has defined its wholesale billing
22 processes to also meet the requirements of the tariff. Compact Disks ("CDs") and

¹ PUCO General Exchange Tariff No. 5, IV Charges for Service - A. The Telephone Company will endeavor to mail its bills for telephone service on or before the same date each month. (Section 1, fifth revised sheet 4)

1 paper invoices are mailed within 7 days of the invoice date, as COI has elected to
2 receive CDs as the primary billing media method and paper as a secondary media
3 method. Embarq data indicates that for the sixteen invoices sent to COI from the
4 January 1, 2008 bill cycle through the May 7, 2008 bill cycle, the average time of
5 *delivery* of the CD from the bill cycle date to the delivery date was 7.6 days.

6 Restated, COI personnel signed for the *delivery* of the CDs an average of 7.6 days
7 from the invoice date. Fourteen (87.5%) of the 16 CDs were delivered in 9 days
8 or fewer, and 12 (75%) of the 16 CDs were delivered in 7 days or fewer. One of
9 the invoice CDs that took 15 days for delivery after the invoice date, the one that
10 took the longest, was actually a resent rendition of the January 3rd bill cycle.

11 ***Q. Is there a more rapid invoice delivery system available to COI?***

12 Yes there is. COI could also choose to receive its bills via Embarq's electronic
13 billing method whereby customers elect to receive industry standard format via
14 secured File Transport Protocol ("FTPS"). This method results in the delivery of
15 industry standard data to the customer within 4 days after the invoice date. COI
16 began a conversion process designed to initiate receipt of its bills electronically
17 within the past few months but then abruptly abandoned that effort and requested
18 a return to the CD and paper formats it had been receiving. This electronic billing
19 method provides industry standard data available for customer download the night
20 of the third day after the billing date so that the morning of the fourth day after the
21 invoice date, the customer has its data. Although Embarq's invoicing intervals
22 and methods are reasonable and follow industry standards, COI has elected not to
23 receive its invoices in the most time efficient manner.

1

2 ***Q. How do you answer COI's charges of unreasonable billing practices and how***
3 ***should that information affect the proposed terms for payment or service***
4 ***suspension intervals?***

5

6 A. Some grounding in the facts relating to telecommunications billing is in order.

7 Bills are sent monthly to recover the charges for the services, some of which,

8 perhaps many of which, were originally established several months to several

9 years earlier. Unless something changes in the services being provided each

10 month, each successive month's invoice should not look much different than the

11 prior month's. In fact the monthly recurring charges should look *exactly* like the

12 previous month's monthly recurring charges. The additional point to note here is

13 that it should not be a surprise to COI or any customer that if one is contracting

14 for and consuming intangible services that are so closely attached to the passage

15 of time, that an invoice will be forthcoming. In fact, Embarq's Ohio Tariff No. 5

16 states that even non-receipt of an invoice does not provide adequate exemption for

17 failing to make timely payments.² The point here is that if one is receiving the

18 service, one should also expect to receive an invoice as well as understand that the

19 receipt of the service implies that the charges will continue to accrue. Although

20 prudence suggests all bills should be reviewed for accuracy and reasonableness of

21 the rates and quantities, the principal parts of the vendor's invoices that would

22 warrant heightened scrutiny, additional study and verification would be those

23 parts that have changed from the immediately preceding months. Services being

² PUCO General Exchange Tariff No. 5, IV Charges for Service - G. Failure to receive a bill will not exempt a subscriber from prompt payment of any sum or sums due the Company. (Section 1, seventh revised sheet 5)

1 added to the bill and services being canceled off the bill are where a wholesale
2 customer would need to focus for validating the bill on a monthly and continuing
3 basis.

4 In numerous cases COI alleges that Embarq's billing practices are deficient simply
5 because COI does not desire to pay for services for which Embarq has a right to
6 charge. An example is the DS1 conditioning charge that is clearly included in
7 COI's now expired contract and for which Embarq is rightfully entitled to bill and
8 collect. COI opens up disputes on charges that appear on its invoices – charges
9 that Embarq has informed COI that will be applied for the conditioning service
10 provided – and then COI claims that Embarq's attempt to properly bill and collect
11 is an unfair billing practice. In this instance, Embarq is acting in good faith to
12 provide service to COI which it has ordered, yet COI consistently abuses the
13 billing dispute process.

14
15 ***Q. How does the speed by which COI receives its invoices and the alternative***
16 ***methods it has for receiving the information affect the payment interval and***
17 ***service suspension issues?***

18 COI indicates on page 7 and 8 of its petition that it just does not have time to
19 properly process its invoices because of deficiencies in Embarq's processes. COI
20 refers to a 14-day payment interval on page 7 of its petition yet simultaneously
21 ignores the fact that the contract language under negotiation and now arbitration
22 calls for 30-day payment terms from the date of invoice. As Embarq
23 demonstrates above concerning the invoicing intervals (i.e., the length of time it
24 takes COI to receive its invoices), COI misrepresents the true interval by a factor

1 of approximately 2 times – but that misrepresentation is only part of the story.

2 The rest of the story is found in COI's payment history. Embarq reviewed the
3 payment history demonstrated by invoicing submitted to COI over the past 24
4 months. That review showed the following:

- 5 • 63% of all COI invoices have been paid more than 35 days after the
6 invoice date.
- 7 • 20% of all invoices have been paid greater than 31 days but not more than
8 35 days after the invoice date.
- 9 • 17% of all invoices have been paid within 30 days or less.
- 10 • 65 invoices out of 337 (19%) were paid 50 days or more after the invoice
11 date.

12 In summary, COI paid less than one in 5 invoices by the due date, and it paid
13 approximately one in five invoices more than 20 days late. Many times within the
14 past two years COI has made payments between 55 and 59 days after the invoice
15 date to just barely avoid losing access to Embarq's service ordering system, IRES.

16
17 ***Q. How do the payment terms affect the ordering and provisioning of current or***
18 ***new service orders?***

19 ***A.*** Embarq utilizes a wholesale ordering and provisioning service called IRES.
20 Orders are entered by wholesale customers into the IRES system where the orders
21 are then fulfilled and provisioned through Embarq's service centers. Embarq's
22 proposed language and intervals found in sections 7.2.3 and 7.2.4 of the
23 interconnection agreement seek to limit the financial exposure that Embarq would
24 otherwise have to the interconnected carrier if longer payment and collection

1 terms were in place. By suspending access to the ordering systems, Embarq can
2 begin to make arrangements for an orderly suspension of the services the
3 customer has ordered on its accounts should that need arise. An orderly transition
4 of service from one carrier to another is a reasonable accommodation when a
5 carrier is believed to be going out of business. A carrier that does not pay its bills
6 can reasonably be assumed to be going out of business. As noted above, in the
7 telecom business the debts continue to accrue when the customer does not act to
8 limit his own liability. Rapid collections procedures and suspension of services
9 are required so that Embarq may mitigate losses caused by a delinquent
10 interconnected carrier. Embarq also notes that its tariff (which only applies to
11 services provided under the tariff) provides a useful analogy here and requires
12 payments to be *received* within 20 days from invoice date

13 ***Q. Why has Embarq proposed shorter payment and IRES suspension intervals in***
14 ***the language under arbitration compared to the language that was in the***
15 ***Parties' expired interconnection agreement?***

16 ***A.*** As I spell out in my testimony below regarding security deposits, Embarq is
17 trying to match reasonably calculated potential financial exposure to the amounts
18 it might expect to have on deposit. Blocking the customer's access to IRES if the
19 customer is 45 days past due, which is down from 60 days past due in the Parties'
20 expired interconnection agreement, merely attempts to match Embarq's financial
21 exposure to operational realities. Just because Embarq may begin to attempt to
22 collect undisputed amounts on day 45 or day 50 does not mean that collection
23 automatically happens or that cash is realized on those days. Collecting a past
24 due amount from a CLEC may require several days to perhaps weeks of placing

1 phone calls and asking for the required payments before the required payments
2 are made.

3 **Issue 7. Is it reasonable for Embarq to require a security deposit from COI**
4 **for services and interconnection to be provided under this agreement?**

5
6 **Q. Embarq is seeking language that would support a security deposit from COI.**
7 **Can you tell us what facts would support imposition of a security deposit**
8 **from COI?**

9 **A.** Embarq began including security deposit language in its agreements with CLEC
10 customers in 2002 while it was operating as the Local Telephone Division of
11 Sprint. Embarq attempts to collect security deposits from interconnected carriers
12 because of the numerous and well publicized financial problems plaguing the
13 competitive local exchange carrier (CLEC) market over the past approximately
14 eight years, and also because of losses it has sustained in CLEC bankruptcies.
15 Before 2001 CLECs were able to secure funding from the public capital markets
16 much more easily than after 2001, when the financial markets dropped
17 significantly. Embarq's experience also indicates that it is often the largest or one
18 of the largest unsecured creditors in bankruptcy cases filed by CLECs operating in
19 Embarq territory. COI itself filed bankruptcy in 2000 and left behind unsecured
20 amounts totaling \$685,000 owed to Embarq's predecessor and former parent,
21 Sprint. Although a portion of this was paid out over a 5 year plan, the remaining
22 un-recaptured loss totaled \$616,500. As one of COI's largest vendors, Embarq
23 ought not also be asked to be COI's financing and funding mechanism. By
24 allowing COI to establish open lines of trade payables that often stretch 50 or
25 more days after the invoice date, the scenario would be set for Embarq to be

1 largely funding COI's business plan. Embarq asks the Commission to allow it to
2 protect its financial interests with a reasonable security deposit.

3
4 **Q. *Is it reasonable to ask COI to post a security deposit based upon two months'***
5 ***worth of receivables?***

6 A. As demonstrated above, COI's payment history lags the terms called for in its
7 current interconnection agreement as well as the terms proposed for the new
8 interconnection agreement. Embarq currently bills COI approximately \$400,000
9 per month. In the normal course of business an additional \$400,000 would be
10 billed by day 30 or 31, and an additional \$400,000 by day 61. Given COI's
11 propensity for late-paying undisputed amounts, oftentimes stretching past the day
12 50 invoice aging mark, COI creates a situation where it could be 10 days or less
13 from owing Embarq for three months' worth of billings. If the interconnection
14 agreement continues to use day 90 after the initial invoice date as the deadline
15 before Embarq can disconnect service for non-payment, that will leave Embarq as
16 little as 2 days away from being owed for 4 months of billing by COI, which is
17 *twice* the security deposit Embarq is seeking in this arbitration. Given these facts,
18 a security deposit equal to 2 months' invoicing is reasonable, provided that
19 Embarq is able to use its proposed payment and service suspension intervals.

20
21 **Q. *Is it reasonable to hold the security deposit even in the face of a demonstrated***
22 ***history of prompt payment?***

23 A. Yes, for the following reasons. As noted above, the intent of the security deposit
24 in this case is to provide the unsecured creditor, usually one of the largest

1 unsecured creditors, with some basis for collecting on the investment devoted to
2 enabling the CLEC's business. The Telecom Act imposes special obligations on
3 the Incumbent Local Exchange Carrier ("ILEC") regarding interconnection. But
4 the Act should not be read to also require the ILEC to operate as the CLEC's
5 financial supermarket.

6 **Q.** *Is it reasonable for Embarq to hold the security deposit and not pay interest on*
7 *it?*

8 A. Yes. Again, the security deposit is held so that Embarq's financial exposure to
9 COI is limited. Embarq does not seek to step into the shoes of COI's financing
10 sources, and for this reason it only seeks the deposit amount reasonably required
11 to limit its exposure. Further, if COI wants to earn interest on any amount that
12 would be used for a security deposit, it could provide a non-cash security deposit
13 in the form of an irrevocable letter of credit. This scenario would allow COI to
14 keep and manage its cash and earn a market rate of interest on its cash at its own
15 financial institution.

16 **Q.** *Please summarize your testimony.*

17 A. Embarq is attempting to reach agreement with COI on contract language that best
18 matches the financial and operational characteristics that define the companies'
19 relationship. Terms for payment, service ordering and suspension, and the
20 amounts of a security deposit to be held by Embarq need to closely match the
21 expected outcomes and provide protections for both parties.

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

23 A. Yes.

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Case No(s). 08-0045-TP-ARB

Summary: Testimony of Embarq in COI Arbitration Part 1 electronically filed by Mr. Gary S Baki on behalf of United Telephone Company of Ohio dba Embarq