Exhibit No.: Issue: 2 and 24 Witness: Saconna Blair Type of Exhibit: Direct Testimony Sponsoring Party: Charter Fiberlink-Missouri, LLC Case No.: TO-2009-0037 Date Testimony September 30, 2008 Prepared:

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BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Petition of Charter Fiberlink-Missouri, LLC for Arbitration of an Interconnection Agreement Between CenturyTel of Missouri, LLC And Charter Fiberlink-Missouri, LLC.

Case No. TO-2009-0037

DIRECT TESTIMONY OF SACONNA BLAIR ON BEHALF OF CHARTER FIBERLINK-MISSOURI, LLC

September 30, 2008

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI In the Matter of the Petition of Charter Fiberlink- Missouri, LLC for Arbitration of an Interconnection Agreement Between CenturyTel of Missouri, LLC And Charter Fiberlink-Missouri, LLC	AFFIDAVIT OF SACONNA BLAIR STATE OF MISSOURI) ss.	COUNTY OF ST. LOUIS) Saconna Blair, being first duly sworn on his oath, states:	1. My name is Saconna Blair. I am presently Vice President, Technical Operations	for Charter Communications.	2. Attached hereto and made a part hereof for all purposes is my direct testimony.	3. I hereby swear and affirm that my answers contained in the attached testimony to	the questions therein propounded are true and correct to the best of my personal knowledge,	information and belief. * <u>first on the Sacothan Blair</u>	Subscribed and swom before me this $\overline{\mathcal{DM}}$ day of September, 2008.	Oand a Manuel County Colorado Notary Public for <u>Proprieses</u> <u>222012</u> . My Commission expires: <u>323013</u> .	Affidavit for Blair Direct Testimony (TO-2009-0037).doc

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1 2 3	0	I. INTRODUCTION
4	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
5	А.	My name is Saconna Blair. My business address is 6399 S. Fiddler's Green
6		Circle, Sixth Floor, Greenwood Village, CO 80111. I am filing this testimony on
7		behalf of Charter.
8		
9 10 11	Q.	BY WHOM ARE YOU EMPLOYED, AND WHAT IS YOUR POSITION WITHIN THE COMPANY?
11	A.	I am Vice President, Technical Operations, at Charter Communications, Inc., and
13		its subsidiary Charter Fiberlink TX-CCO, LLC, the petitioner in this case
14		(collectively "Charter").
15		
16 17	Q.	WHAT ARE YOUR DUTIES AS THE VICE PRESIDENT OF TECHNICAL OPERATIONS?
18 19	A.	I am responsible for Multiple System Operator ("MSO") technical operation
20		standards, specification, processes and procedures for installation, field customer
21		service, and hybrid fiber/cable ("HFC") plant maintenance. My current areas of
22		responsibility also include technical quality assurance, safety, and FCC
23		compliance. I therefore have a basis to testify to the facts surrounding the
24		disputed issues between Charter and CenturyTel that are addressed in this
25		testimony.
26		
27		
28		

1Q.WHAT IS THE RELATIONSHIP BETWEEN YOUR EMPLOYER,2CHARTER COMMUNCIATIONS, AND CHARTER FIBERLINK TX-3CCO, LLC, THE PETITIONER IN THIS ARBITRATION DOCKET?4

5 A. Charter Communications, Inc. is a national MSO that provides cable television 6 and broadband internet services in various parts of the United States, including parts of Texas. The Charter Fiberlink companies, of which Charter Fiberlink TX-7 CCO, LLC is one, are wholly-owned subsidiaries of Charter Communications that 8 9 provide facilities-based local exchange services and resold interexchange services to customers using facilities and services obtained from the Charter 10 Communications cable television companies. Charter Fiberlink offers voice 11 communications services primarily to residential customers and has recently 12 begun offering such services to small business customers in some of its service 13 14 areas. For the sake of brevity, I refer to Charter Communications and the Charter Fiberlink companies, specifically including Charter Fiberlink TX-CCO, LLC, 15 16 which provides local exchange services in Texas, as "Charter" throughout my 17 testimony.

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19 Q. PRIOR TO BECOMING VICE PRESIDENT OF TECHNICAL 20 OPERATIONS AT CHARTER WHAT OTHER CHARTER POSITIONS 21 HAVE YOU HELD?

A. Prior to my current Charter position I held a number of Senior Director and Director positions at Charter including Director of Network Engineering Operations where I was responsible for developing and implementing technical operations quality management systems (using ISO 9001:2000 as model) to meet business plans and service delivery expectations including technical development, 1

standards, training, measurements and benchmark analysis. I was also responsible for FCC and OSHA compliance.

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4 Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE PRIOR TO JOINING 5 CHARTER.

Prior to joining Charter, I was a Director of Network Integration Services for 7 A. Worldbridge Broadband Services. While at Worldbridge I was responsible for 8 9 engineering, bidding, planning, design, project management and workforce allocation in building, turn-up, and the certification of telecommunication 10 processing centers (video, data, and telephony) as well as transport networks. 11 Prior to joining Worldbridge, I was a Director of Deployment for HSA (High 12 Speed Access) Corporation responsible for turnkey high speed data cable modem 13 deployments, including network design, material management, equipment 14 configuration, bandwidth capacity management, installation turn-up and network 15 alpha certification. Prior to joining HSA, I was a Director of Broadband Network 16 Management for Jones Intercable, Inc. responsible for developing and 17 implementing cost effective upgrade migration architecture for HFC broadband 18 networks to support advanced video services, data, and voice. Prior to becoming 19 the Director of Broadband Network Management at Jones, I held a number of 20 other positions at Jones where I dealt with service and safety issues, FCC 21 compliance and Quality assurance. Prior to joining Jones, I also held a number of 22 technical positions at Heritage Cablevision including service as a Chief 23 Technician with responsibility for technical and financial operations for multiple 24 CATV systems. 25

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Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY STATE REGULATORY COMMISSION?

5 A. No, I have not.

7		II. PURPOSE AND SUMMARY OF TESTIMONY
8		
9		ISSUES 2 AND 24:
10		ISSUE 2 - HOW SHOULD THE AGREEMENT DEFINE THE TERM
11		NETWORK INTERFACE DEVICE OR "NID"?
12		ISSUE 74 SHOULD CHADTED HAVE ACCESS TO THE CUSTOMED
13		ISSUE 24 - SHOULD CHARTER HAVE ACCESS TO THE CUSTOMER SIDE OF THE NETWORK INTERFACE DEVICE ("NID") WITHOUT
14 15		HAVING TO COMPENSATE CENTURYTEL FOR SUCH ACCESS?
16		HAVING TO COMPENSATE CENTORTTEL FOR SUCH ACCESS:
17	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY ON THESE ISSUES?
18	A.	This testimony is offered to support Charter's position on disputed issues
19		numbered 2 and 24 of this arbitration.
20		
21 22	Q.	WHY HAVE YOU IDENTIFIED TWO ISSUES ABOVE?
22	А.	Issues 2 and 24 deal with the Parties' responsibilities associated with the
24		demarcation point (generally referred to as the Network Interface Device or
25		"NID") between the carrier's network and the customer's inside wiring. Because
26		Charter believes that these issues are interrelated, it seems appropriate and
27		efficient to address them together.
28		
29 30	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
30 31	А.	In my testimony I will briefly describe what a Network Interface Device ("NID")
32		is and how Charter technicians connect the inside wire contained in a local

1		telephone service end user customer residence to the Charter network after
2		Charter has acquired that customer from another local exchange carrier, typically
3		an incumbent local exchange carrier ('ILEC").
4 5		III. BACKGROUND
6	Q.	WHAT IS A NETWORK INTERFACE DEVICE ("NID")?
7	А.	For the issues relevant in this case, NIDs are typically small gray boxes, about the
8		size of a shoe-box, placed on the side of single family dwellings. A NID
9		generally contains two compartments. One compartment is generally referred to
10		as the "network side" of the NID. The other compartment is generally referred to
11		as the "customer side" of the NID. (A picture of a typical residential NID is set
12		forth below.)



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Q. PLEASE EXPLAIN THE BASIC USE OF THE NID.

A traditional telephone carrier such as CenturyTel brings a copper loop serving 3 А. the residence into the "network side" (also known as the Telco side) of the NID, 4 which typically contains important electrical grounding capability (called the 5 "protector") and often contains loop testing circuitry as well. These parts of the 6 NID are sealed off from customer access. The NID also contains a compartment, 7 the "customer side," that is fully accessible to the customer/premises owner. In 8 that compartment, the typical NID contains a standard telephone jack for each line 9 10 serving the home. The customer side of the NID also has copper posts to which wiring from inside the house is connected. A short telephone cord, with a standard 11 12 telephone plug at the end, runs from the copper posts serving a line in the home and plugs into the jack. 13

14

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DO YOU HAVE A DIAGRAM TO ILLUSTRATE THIS EXAMPLE? Q.

- Yes. A simple diagram identifying the customer side and the Telco/network side Α. 16 of the NID is provided below. (See Diagram 1 below). 17
- 18
- 19

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Diagram 1: "Network" and "Customer" Sides of NID



14 capability (called the "protector") and often contains loop testing circuitry as well.

15 These parts of the NID are sealed off from customer access.

16

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Q. WHAT FUNCTIONALITY IS PROVIDED ON THE CUSTOMER SIDE OF 1 THE NID? 2

4 A. The customer side of the NID is fully accessible to the customer/premises owner. 5 The customer side of the NID generally contains a standard telephone jack for each line serving the home.¹ The customer side of the NID also has copper posts 6 7 to which wiring from inside the house is connected. A short telephone cord, with a standard telephone plug at the end (commonly referred to as an RJ11 8 connector), runs from the copper posts serving a line in the home and plugs into 9 the jack. By plugging and unplugging this telephone cord, the customer can 10 connect and disconnect his premises from the carrier's loop. 11

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Q. WHY WOULD A CUSTOMER WANT TO DISCONNECT HIS PREMISES **FROM THE CARRIER'S LOOP?** 14

- A. Disconnecting the premise from the carrier's loop allows the customer to test 16 whether a service problem is in the loop or in his premises wiring, as well as to 17 keep the line disconnected (to avoid electric shocks) when he is adding to, 18 removing, or rearranging his inside wiring. 19
- 20

DOES CHARTER'S TELEPHONE SERVICE USE COPPER LOOPS? Q. 21

No, it does not. Charter's telephone service is embedded in the signaling carried 22 A. by Charter's affiliated cable systems. As a result, Charter has no need for, and 23 does not use, the protection and line testing capabilities of the network side of the 24 NID. Instead, to provide telephone service, Charter uses coaxial cable to connect 25

1		a small device called a "Multimedia Terminal Adapter", or MTA, to a standard
2		cable outlet in the home. The MTA electrically extracts the telephone signals
3		from the cable system. The customer side of the MTA has a standard telephone
4		jack into which the customer can plug a telephone cord.
5		
6		IV. CHARTER INSTALLATION PROCEDURES
7 8 9 10	Q.	DOES CHARTER REQUIRE ACCESS TO THE CUSTOMER SIDE OF THE NID IN ORDER TO CONNECT TO THE RESIDENTIAL CUSTOMER'S INSIDE WIRING?
11	A.	Yes. When Charter ports an end user customer away from an ILEC such as
12		CenturyTel, Charter must find a way to connect to that customer's inside wire.
13		Since that inside wire is connected to the NID, Charter must access the NID to
14		disconnect the ILEC network from the NID and connect its telephone service to
15		that preexisting inside wire in that residence.
16		
17 18	Q.	HOW DOES CHARTER CONNECT ITS TELEPHONE SERVICE TO THE PRE-EXISTING INSIDE WIRING IN THE HOME?
19 20	A.	Charter procedures are dependent on the type of telephone wiring system utilized
21		in a particular residence. There are two basic types of residential telephone
22		wiring systems. The first is called a "serial" telephone wiring network commonly
23		found in older residences. In a serial network one wall jack is connected to
24		another, which is connected to another, and so on. (See diagram 2 below.)
25		

¹ A typical single-family home might have a NID capable of handling two, four, or perhaps a few more lines; different NIDs are capable of handling different number of lines. The basic arrangement described in this testimony, however, is the same for each line.



Diagram 2: Serial Wiring Telephone Network

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Q. HOW DOES A CHARTER TECHNICIAN CONNECT THE CHARTER MTA TO THE CUSTOMER'S INSIDE WIRE IN A SERIAL WIRING TELEPHONE NETWORK?

A. In a serial wiring telephone network the Charter technician will disconnect the ILEC loop by unplugging the RJ11 customer test socket. If there is no RJ11 connector and the connection is hard wired, the technician will remove the tip and ring wires on the customer's side by "scotchlocking" like colors and ensuring they are isolated from the ILEC's service wiring. The term "scothlocking" refers to a process whereby Charter scotchlocks the wires together using a small plastic gel-

1		filled connector commonly referred to in the industry as a "Scothlock." The
2		technician will then install the MTA and connect it to the customer's nearest
3		available dual wall jack and will install a new dual wall jack if required.
4		
5 6	Q.	IS THE CUSTOMER SIDE OF THE NID IMPACTED WHEN CHARTER CONNECTS TO A CUSTOMER'S SERIAL WIRING NETWORK?
7 8	A.	No, it is not. In a serial wiring network Charter simply disconnects the ILEC loop
9		from the inside wiring either by unplugging the RJ11 jack or by disconnecting the
10		wires from the terminals and scotchlocking them.
11		
12 13 14	Q.	WHAT IS THE SECOND BASIC TYPE OF RESIDENTIAL TELEPHONE WIRING SYSTEM?
14		The second basic type of system is commonly called a "home run" or "star"
16		telephone wiring network and is commonly found in more modern residences. In
17		a star network each connection to a wall jack is pulled all the way back to a
18		punch-down block or junction box located in a data communication center. (See
19		diagram 3 below).
20		
21		
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Diagram 3: Star Wiring Telephone Network



A. Under this scenario the Charter technician, to avoid having to touch jack locations or the punch-down block, will generally run a line from the MTA to the outside of the home. This line is then scotchlocked with the inside wiring which has been disconnected from the terminal posts on the customer side of the NID.

1 2 3	Q.	IS THE CUSTOMER SIDE OF THE NID IMPACTED WHEN CHARTER CONNECTS TO A CUSTOMER'S STAR WIRING NETWORK?
4	A.	No, it is not. Once the Charter technician has made the appropriate connection it
5		is simply left inside the customer side of the NID.
6		
7 8 9	Q.	WHY IS THE NEW CHARTER CONNECTION LEFT INSIDE OF THE NID?
10	A.	The Charter connection is left inside of the NID to make it easier for the next
11		local service provider (be that the ILEC or some other local service provider) to
12		connect to the end user's customer wiring.
13		
14 15 16	Q.	HOW DOES CHARTER PROPOSE TO DEFINE A NID IN THE PROPOSED INTERCONNECTION AGREEMENT?
17	A.	Charter proposes to define a NID as a "means of interconnecting Inside Wiring to
18		CenturyTel's distribution plant, such as a cross-connect device used for that
19		purpose. The NID houses the protector."
20		
21 22 23 24	Q.	WOULD YOU AGREE THAT CHARTER'S PROPOSED NID DEFINITION SIMPLY AND ACCURATELY DEFINES A NID FROM A TECHNICAL PERSPECTIVE?
24	٨	Veg. My earlier description of a NID provided some technical detail shout the

A. Yes. My earlier description of a NID provided some technical detail about the common components of a NID. Charter's definition encompasses this detailed description by simply stating that a NID is used to cross-connect Inside Wiring to CenturyTel's distribution plant and houses the protector. This is an unambiguous definition that Charter believes is consistent with FCC rulings.

1 2 3	Q.	IS CHARTER REQUIRED TO ACCESS THE NID IN ORDER TO PROVIDE TELEPHONE SERVICE TO END USER CUSTOMERS THAT IT HAS PORTED FROM CENTURYTEL?
4 5	A.	Ves As described above a Charter test.
5	11.	Yes. As described above, a Charter technician must have access to the NID in
6		order to disconnect the ILEC loop from the inside wire and in order to connect the
7		Charter MTA to that same end user's inside wire.
8		
9		V. CONCLUSION
10	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
11	A.	Yes.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was served by facsimile, hand-delivery, or electronic mail, on the 30th day of September, 2008, on the following:

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