DIRECT TESTIMONY

OF

QIN LIU

POLICYS DIVISION

ILLINOIS COMMERCE COMMISSION

NTS SERVICES CORP.

v.

GALLATIN RIVER COMMUNICATIONS L.L.C. D/B/A CENTURYLINK

DOCKET NO. 12-0116

NOVEMBER 19, 2012

Q. Please state your name and business address.

A. My name is Qin Liu, and I am employed by the Policy Division of the Illinois Commerce Commission ("Commission"). My business address is 160 North LaSalle, Suite C-800, Chicago, Illinois, 60601.

Q. Please describe your education background.

A. I earned a BA in Mathematics in the People's Republic of China, and a PhD degree in economics from Northwestern University (Evanston).

Q. Have you previously filed testimony in any proceedings before the Commission?

A. Yes. I have filed testimony in various Commission proceedings. Examples include 02-0864, 04-0469, 08-0569, and 10-0379.

Q. Please describe the purpose and scope of your testimony.

A. The purposes of my testimony is to respond to NTS Service Corp ("NTS") complaints and testimony in support of the complaints and Gallatin River Communications L.L.C. d/b/a CenturyLink ("CenturyLink") responses to the complaints and testimony in support of the responses.

<u>Issue 1</u>: Failure to Provide Accurate Loop Information

Q. Please describe NTS's complaint regarding CenturyLink's failure to provide accurate loop information.

A. NTS alleges that CenturyLink failed to provide accurate information regarding loop length and the presence of additional equipment (such as load coils and bridge taps) and that CenturyLink used MapQuest to perform loop prequalification during 2008-2010. (Amended Complaint at 17-21) Presumably, NTS alleged that the failure to provide accurate information was the result of CenturyLink's use of MapQuest, instead of its own plant records, to perform loop prequalification.

Q. Please provide a fundamental explanation of DSL and the associated loop prequalification.

A. DSL services refer high-speed data transmission services provisioned over copper wires of a local telephone network using Digital subscriber line ("DSL") technologies. Not all cooper loops are capable of supporting DSL services. To be DSL-capable, copper loops must "meet basic electrical standards such as metallic conductivity and capacitive and resistive balance and, based upon industry standards, should not include load coils, mid-span repeaters or excessive bridged tap." (CenturyLink Exhibit 3.0 (Template Agreement), Article VII: xDSL, Sections 4.1.1 and 4.1.3) The length of the loops may also affect the types of DSL equipments to be used to ensure the capability of high-speed data transmission. (NTS Direct Testimony (Scott), at Lines 140:142) Before

provisioning DSL services, NTS must ascertain that the cooper loops are DSL-capable loops and what types of DSL equipments are required to ensure the capability of high-speed data transmission. Loop prequalification refers to the process through which a DSL service provider such as NTS gathers information concerning loop length and presence of load coils, repeaters and excessive bridge taps.

NTS alleges that prequalification service it requested and paid for involves "physically looking at plant records in order to determine an accurate measurement of loop length from company plant records and also a determination of the presence of any bridge taps and load coils" and, by using MapQuest to perform prequalification, CenturyLink provided inaccurate information concerning loop length and/or presence of load coils and bridge taps. (NTS Direct Testimony (Scott), at lines 131-134 and 140-165)

Q. Please describe CenturyLink's responses to NTS's complaint that it has failed to provide accurate loop information.

A. In Response 19 to Amended Compliant, CenturyLink admitted that it used MapQuest for loop prequalification for approximately six months prior to November 2009 and claimed that MapQuest "is an accepted industry standard tool for use in the wholesale/interconnection arena."

Q. What is your opinion regarding the use of MapQuest for loop prequalification?

A. It is my opinion that MapQuest is not an industry standard tool for loop prequalification. I cannot understand why a carrier would elect to use MapQuest to estimate loop length, in lieu of actual loop information from its own plant records, unless its own plant records are incomplete and inaccurate. In addition, unlike a carrier's own plant records, MapQuest would not contain information regarding the presence or absence of load coils or bridge taps.

CenturyLink further stated In Response 20:

> CenturyLink further denies that it has any obligation under applicable law or interim ICA terms to undertake loop qualification efforts for NTS.

This assertion is incorrect. Regardless of whether it is obligated under the law to perform loop prequalification or to provision DSL-capable loops to NTS, the interim ICA contains terms and conditions governing the provision of DSL-capable loops to NTS (e.g., Article VII: xDSL). It makes no sense for CenturyLink to assert that it is not required to perform loop prequalification for loops that it leases or is about to lease to NTS for the provision of DSL services, as the terms of the interim ICA govern the provision of such loops. In addition, NTS does not allege that CenturyLink refused to perform loop prequalification in violation of the terms of the ICA; rather, NTS alleges that CenturyLink performed the requested (and paid

for) loop prequalification using improper methods (i.e., MapQuest, instead of CenturyLink's own plant records), which resulted in inaccurate loop information.

Q. How did CenturyLink address this issue in direct testimony?

A. First, CenturyLink revised the length of time during which it used MapQuest to perform loop prequalification. Contrary to its Responses to Amended Complaint, CenturyLink admitted to use MapQuest for loop prequalification for only three months during the spring of 2009, instead of six months prior to November 2009:

> CenturyLink used MapQuest for prequalification for approximately three months during the spring of 2009 and not for a two-year period as asserted by NTS.
>
> (CenturyLink Exhibit 1.0 (Miller) at 22)

Regardless of the length of time that CenturyLink used MapQuest for loop prequalification, CenturyLink witness John Fordham indicated that CenturyLink has made the decision to cease using MapQuest. (CenturyLink Exhibit 4.0 (Fordham) at 5) It is noteworthy that CenturyLink seems to admit the reliability of its plant records is less than desirable, which may render the MapQuest alternative less undesirable than first thought. (Id.)

Q. What is your recommendation regarding whether CenturyLink may or may not use MapQuest to perform loop prequalification?

I recommend that the Commission make clear that CenturyLink may not use MapQuest to perform loop prequalification in the future unless it is explicitly requested by NTS or CenturyLink has obtained explicit consent from NTS for such method for loop prequalification.

Q. Please discuss the refund issue related to loop prequalification.

A. There seems to be discrepancy between the parties' understanding of an informal agreement, or the lack thereof, concerning the refund of loop prequalification charges. NTS alleges that CenturyLink agreed to refund all the charges for loop prequalification performed using MapQuest at an informal meeting with ICC Staff. (NTS Direct Testimony (Scott) at lines 228-240) In contrast, CenturyLink denies consenting to an unconditional refund for these charges. Instead, it claims to have only agreed to refund loop prequalification in situations where NTS provided proof of harm. (CenturyLink Exhibit 1.0 (Miller) at 20-21: 386-396)

Based on my understanding, the meeting with ICC Staff was informal, off the record, and thus no party can be held to any statements made during such meeting. As such, Staff declines to support either party's position on this matter.

<u>Issue 2</u>: Inaccurate Loop Labeling at Minimum Point of Entry

Q. Please describe NTS' complaint regarding inaccurate loop labeling at Minimum Point of Entry (MPOE).

A. NTS alleges that CenturyLink either inaccurately or completely failed to tag copper loops terminating into multi-resident dwellings or offices, which prevents service technicians from being able to identify which company is providing service on the loop. (Amended Complaint at 22).

Q. Please describe CenturyLink's responses to NTS' complaint regarding loop labeling at MPOE.

A. CenturyLink stated in Response 22 to Amended Complaint and direct testimony (CenturyLink Exhibit 1.0 (Miller) at 34) that it "is not aware of any statute, regulation, or rule requiring CenturyLink to tag and label lines (or loops), including those terminating in a multi-unit premises."

Q. What is your opinion regarding the loop labeling dispute?

A. While it may be true that no law or Commission rule specifically requires the tagging of loops, it would seem, at least intuitively, good business practice to tag loops. Nonetheless, this issue appears to have been resolved:

> CenturyLink developed tagging and labeling terms for the replacement ICA and NTS accepted those terms in negotiations. These terms are found in the ICA that the Parties have submitted to the Commission for approval.

(CenturyLink Exhibit 1.0 (Miller) at 34: 648-650)

Issue 5: Installation and Repair Delays

Q. Please describe NTS' complaint and CenturyLink's responses regarding the migration of circuit identification numbers to a new format.

A. NTS alleges that CenturyLink's circuit identification number migration caused inevitable delay in its cancelling or calling in a trouble ticket:

> After the merger between Embarq and CenturyLink, CenturyLink instituted new circuit identification numbers. NTS has attempted to work with CenturyLink to migrate NTS' circuit identification numbers to new ones to prevent a delay when canceling or calling in a trouble ticket. This has not been successful. CTL has never offered to replace the old circuits with the new ones.
>
> (Amended Complaint at 46).

From the complaint, it seems that NTS was under the impression that it would need to have circuit identification numbers of its existing circuits migrated or converted to the new format. CenturyLink does not contradict this notion in its Response:

> By way of further answer, NTS is responsible for migrating NTS's circuit identification numbers to new ones and is responsible for any failure to migrate the circuit identification numbers.
>
> (Response at 46).

CenturyLink seems to take the position that NTS is entirely responsible for the conversion of the circuit identification numbers of NTS' existing circuits (leased from CenturyLink) to the new format by itself. CenturyLink's response appears to be at odds with its direct testimony, in which CenturyLink witness Guy Miller described the migration from the old circuit ID format to the new format:

> In approximately mid-2010, CenturyLink moved to an industry-standard circuit ID format. As part of this transition, the new circuit ID format was used for circuits ordered after the change, while existing circuits continued under the prior circuit ID format until disconnection. The advantage of this approach is that CenturyLink and its CLEC customers did not have to change IDs for existing circuits, but could use industry standard IDs for new circuits. It also minimized errors that could occur in mapping old circuit IDs to new circuit IDs in various systems of both CLECs and CenturyLink.
>
> (CenturyLink Exhibit 1.0 (Miller) at 10)

Based on this description and the subsequent discussion in Mr. Miller's testimony, CenturyLink's migration of circuit identification numbers from the format to the new format would not require NTS to do, or to be responsible for, the migration of circuit identification numbers of NTS's existing circuits, which is inconsistent with CenturyLink's Response to Amended Complaint. As the migration would not affect existing circuits, at least not until disconnection, NTS should not need, nor be responsible for, the migration of the circuit identification numbers of its existing circuits to the new format. This circuit identification number migration issue should have been a non-issue.

However, the fact that it was an issue or that NTS was under the impression that it somehow would need to convert identification numbers of existing circuits to the new format seems to indicate that CenturyLink did not adequately convey to NTS how the migration works or what would be required of NTS.

Q. Does Staff have any overall comments?

A. Yes. It is obvious from NTS's Amended Complaint and testimony that NTS was very frustrated. It is also obvious that some, if not all, issues raised in this proceeding would have been prevented if parties had better communications. For example, it appears that CenturyLink may have used MapQuest, instead of its own plant records, for loop prequalification due to the prospect that MapQuest may represent a better alternative to its own plant records. If this has been adequately communicated to NTS and if CenturyLink had discussed the use of MapQuest for loop prequalification before doing so, this NTS complaint may have not arisen at all. Similarly, if adequate communications occurred, NTS would not have been under the impression that it would need to convert circuit identification numbers of its existing circuits (leased from CenturyLink) to the new format.

No laws or ICA can possibly contain sufficient provisions governing each detail of good communications. Good communications must come from good-faith efforts. Disputes in this proceeding suggest that there is room for better communications on both sides. Staff urges parties to make further good-faith efforts for better communications.

Q. Does this conclude your testimony?

A. Yes.