

**Exhibit No. \_\_\_ T (RB-1T)**  
**Docket UT-100820**  
**Witness: Rebecca Beaton**

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of the Joint Application of**

**DOCKET UT-100820**

**QWEST COMMUNICATIONS  
INTERNATIONAL INC. and  
CENTURYTEL, INC.**

**for Approval of Indirect Transfer of  
Control of Qwest Corporation, Qwest  
Communications Company LLC, and  
Qwest LD Corp.**

**TESTIMONY**

**OF**

**REBECCA BEATON**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

**September 27, 2010**

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## EXHIBIT LIST

Exhibit No. ____ (RB-2)	Qualifications
Exhibit No. ____ (RB-3)	Qwest ESI Net Contract
Exhibit No. ____ (RB-4)	Rate Center Consolidations
Exhibit No. ____ (RB-5)	Supplemental Response of Joint Applicants to UTC Staff Data Request No. 138
Exhibit No. ____ (RB-6)	NRRI Paper: Evaluating the Proposed Merger of CenturyLink and Qwest Communications

1 I. INTRODUCTION

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

4 A. My name is Rebecca Beaton, and my business address is 1300 South Evergreen Park Drive  
5 Southwest, P.O. Box 47250, Olympia, Washington, 98504-7250. My business e-mail  
6 address is rbeaton@utc.wa.gov.

7  
8 **Q. By whom are you employed and in what capacity?**

9 A. I am employed by the Washington Utilities and Transportation Commission (Commission)  
10 as an Infrastructure Manager in the Regulatory Services Division.

11  
12 **Q. Have you prepared a statement of your qualifications?**

13 A. Yes. A summary of my education and experience is provided as Exhibit No. \_\_  
14 (RB-2).

15  
16 **Q. On whose behalf was this testimony prepared?**

17 A. This testimony was prepared on behalf of Commission Staff (Staff).

18  
19 **Q. What is the purpose of your testimony in this case?**

20 A. On behalf of Commission Staff (Staff), I address the potential impact on the State of  
21 Washington Enhanced 911 (E911) network of the transaction proposed by applicants,  
22 CenturyLink, Inc. (CenturyLink) and Qwest Communications International, Inc. (QCII). I  
23 also address the increasing scarcity of numbering resources in Washington. I recommend

1 that the Commission impose conditions in these two areas on the applicants to protect the  
2 public from risks associated with the proposed transaction. Specifically, I recommend that  
3 any approval be conditioned upon the applicants' commitment to honor the contract Qwest  
4 Corporation (Qwest) recently entered into obligating it to construct Washington's Next  
5 Generation 911 (NG 911) network ("Qwest Communications Contract E09-196 ESI Net  
6 Project" or "ESI Net Contract"). Also, I recommend rate center consolidations to address  
7 numbering resources issues.

## 8 9 II. EXHIBITS

10  
11 **Q. Please identify the exhibits to your testimony.**

12 A. As part of my testimony, I have included the following exhibits: Exhibit No. \_\_ (RB-2) sets  
13 forth my qualifications and experience; Exhibit No. \_\_ (RB-3) is a copy of the Washington  
14 Military Department Contract Face Sheet, to the Qwest Communications Contract E09-196  
15 ESI Net Project; Exhibit No. \_\_ (RB-4) is a Staff proposed rate center consolidation table;  
16 Exhibit No. \_\_ (RB-5) is a copy of the supplemental response to UTC Staff Data Request  
17 No. 138; and Exhibit No. \_\_ (RB-6), an NRRI paper titled Evaluating the Proposed Merger  
18 of CenturyLink and Qwest Communications.

1 **III. SUMMARY OF TESTIMONY**

2  
3 **Q. Please summarize your testimony.**

4 A. My testimony provides background on Washington’s 911 system. I explain the current  
5 infrastructure and capabilities of the system, which is “Enhanced 911” (E911), and then I  
6 discuss the transformation of that network into the Next Generation 911 (NG 911) network  
7 that Qwest will drive under the terms of the ESI Net Contract. I discuss the importance of  
8 considering the timelines of Qwest’s ESI Net Contract obligations in conjunction with post-  
9 transaction transitions. Finally I recommend a condition to protect the current and future  
10 911 networks.

11 My testimony describes rate center consolidation and explains why it is effective in  
12 conserving numbering resources. I recommend a condition that requires CenturyLink of  
13 Washington, Inc., CenturyLink of Inter-Island, Inc., CenturyLink of Cowiche, Inc., and  
14 United Telephone Company of the Northwest (collectively the CenturyLink ILECS) as well  
15 as Qwest to complete rate center consolidations between rate centers in which two-way  
16 extended area local calling exists.

17  
18 **IV. 911 SYSTEMS**

19  
20 **Q. What are 911 systems?**

21 A. 911 systems are the computer hardware and software network that perform the switching  
22 functions for the emergency management network. A call is answered at a common  
23 answering location which is then dispatched to a response team. The call is routed through a

1 local exchange network and databases. The 911 network system in the state of Washington  
2 was designed in the 1960s using a statewide “backbone” of multiple local exchange carrier  
3 networks to provide emergency communications.  
4

5 **Q. Please describe the 911 system currently in operation.**

6 A. Enhanced 911 (E911) is the 911 system in operation today. It is a more advanced  
7 emergency communications system that provides location identification for callers. E911  
8 service allows the telephone number of a caller who has dialed 9-1-1 to be transmitted to the  
9 Public Safety Answering Point (PSAP).<sup>1</sup> At the PSAP, the telephone number is cross-  
10 referenced with an address database to determine the calling party’s location, which is then  
11 displayed on a video monitor. Wireless service providers are required by the Federal  
12 Communications Commission (FCC) to provide the E911 system a caller’s location within  
13 165 feet.  
14

15 **Q. What are the current local exchange carrier networks that make up the Washington  
16 State Enhanced 911 network?**

17 A. There are three Incumbent Local Exchange Carriers (ILECs) providing customer address  
18 databases and the selective router switches that comprise the E911 Network. These  
19 companies are Qwest; Frontier Communications Corp. (Frontier),<sup>2</sup> and Century Link

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<sup>1</sup> A Public Safety Answering Point, or PSAP, is the public safety answering location for 911 calls originating in a given area. PSAPs are designated as primary or secondary, which refers to the order in which calls are directed for answering. WAC 118-66-030 Definitions.

<sup>2</sup> Frontier Communications Corp. recently acquired Verizon’s local exchange carrier operations in Washington. See Docket UT-090842.

1 through the CenturyLink ILECs. Qwest has five selective router switch tandems<sup>3</sup> and is  
2 currently using four DSM-100 type switches, two in Eastern Washington, in Spokane and  
3 Yakima, and two in Western Washington, both in Seattle. There is a fifth Qwest selective  
4 router tandem switch DMS-100 type in Portland, Oregon, that routes calls for the west end  
5 of Skamania County. CenturyLink has one Selective Router tandem switch DSM 100 in the  
6 Dalles/Hood River, which routes calls in Klickitat County and eastern Skamania County.  
7 Frontier has two selective router tandem 5-ESS switches. One is in Richland in Eastern  
8 Washington, and the other is located in Northwest Washington in Mount Vernon.

9  
10 **Q. Does the existing Enhanced 911 network support new and emerging technologies such**  
11 **as Voice over Internet Protocol and telematic type services?**

12 A. No. The current E911 network is reliable but unable to provide service to Voice over  
13 Internet Protocol (VOIP) or emerging communications technologies and devices that is  
14 equivalent to the service provided to wireless and traditional wireline communications. The  
15 existing emergency network is not capable of processing widely used data such as text  
16 messaging, pictures, video or telematic service types. New technologies continue to be  
17 introduced at a rapid rate and E911 system functions continue to be expanded to  
18 accommodate both the technologies and requirements such as the location determination  
19 protocols established by the FCC. The requirements include significant ongoing network  
20 engineering and cost changes. Because the current E911 network and infrastructure cannot  
21 support advanced product technology it is transitioning to a modern Internet Protocol (IP)-  
22 based network capable of meeting public safety requirements and expectations. A

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<sup>3</sup> A tandem switch is a major local exchange company central office for the network connecting central offices to one another when direct line or trunk connections are not available.



1 significant concern to emergency management administrators nationwide is that existing  
2 911 networks are not capable of accepting text messages. Texting has become the preferred  
3 mode of communication for the hearing and speech impaired communities as it allows them  
4 to communicate without the need of special equipment or third party intervention.  
5

6 **Q. What are telematic services?**

7 A. Telematic services are machine to machine (M2M) communication. This is a specialized  
8 form of data transmission which has specific network design requirements. M2M telematic  
9 services are an integral part of a vast number of industries and markets including power and  
10 communication utilities, medical, automotive, transportation, private security, public safety,  
11 Homeland Security, and local/state/federal government agencies. Telematic applications  
12 include communication used in the power utility industry for meter reading and load  
13 control; mobile applications such as those for vehicle tracking and global positioning;  
14 emergency assistance such as the "Emfinders" product bracelet; and wireless data  
15 transmission for vehicles such as the "On Star" product from General Motors company and  
16 the "Lexus Link" from Toyota Motor Sales. Information reported through these widely used  
17 telematic type services cannot be directly linked to the E911 system.  
18

19 **V. ESI NET PROJECT**

20  
21 **Q. What is Next Generation 911?**

22 A. NG 911 is the IP-enabled 911 system. It is comprised of managed IP- based networks and  
23 elements that augment E911 features and functions and add new capabilities. The NG 911

1 eventually will replace the present E911 system and is designed to provide access to  
2 emergency services from a broader range of sources and technologies, and to provide  
3 multimedia data capabilities for PSAPs and other emergency service organizations.<sup>4</sup>  
4 Implementing NG 911 is proceeding in the state of Washington in conjunction with a  
5 nationwide movement. Federal legislation, the New and Emerging Technologies 911  
6 Improvement Act of 2008 (NET 911 Act), requires the FCC to work with public safety  
7 organizations, industry participants and others to promote deployment of NG 911. The NET  
8 911 Act also contains standards concerning geographic coverage areas for PSAPs; PSAP  
9 certification and testing requirements; network diversity requirements for delivery of IP-  
10 enabled 911 and E911 calls; call handling in the event of call overflow or network outages;  
11 validation procedures for processing location information; and the format for delivering  
12 address information to PSAPs.

13  
14 **Q. Has Washington State implemented the NET 911 Act?**

15 A. Washington State is in the process of implementation. In 2008, the Washington State  
16 Legislature directed the Washington State Military Department to recommend an  
17 appropriate funding mechanism for implementation of a statewide NG 911 emergency  
18 system.

19 The Military Department consulted with the Utilities and Transportation  
20 Commission, the Department of Revenue, local governments, and representatives from  
21 service providers of communications that connect to the emergency network to complete a  
22 report to propose a new system for E911. The outcome was a request for bid to construct a

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<sup>4</sup> See WAC 118-66-030 Definitions.

1 NG 911 network in Washington. The Military Department, Emergency Management  
2 Division, signed a contract with Qwest in June 2009 for provision of the Emergency  
3 Services Internet Protocol Network or "ESI Net." The ESI Net Contract is attached to my  
4 testimony as Exhibit \_\_ (RB-3).

5  
6 **Q. What is an "ESI Net"?**

7 A. An ESI Net is an Emergency Services IP network. This is a secure network using network  
8 infrastructure of central office switches, routers, and firewalls, allowing public safety  
9 agencies to manage a universal interconnected emergency system.

10  
11 **Q. What is the "Qwest Contract E09-196 ESI Net Project"?**

12 A. The ESI Net Contract is for construction of the NG 911 network and system in the state of  
13 Washington. The ESI Net contract is currently in effect with two subsequent contract  
14 amendments: "Contract E09-196 Net Project Amendment A and Amendment B." The  
15 contract and the amendments are contained in my Exhibit No. \_\_ (RB-3).

16 Under the ESI Net Contract, after NG 911 is fully implemented, Qwest will be the  
17 exclusive provider of the E911 "backbone" network, including the 911 selective router  
18 switches, for the state of Washington. The NG 911 network will use IP to enable 911  
19 system administrators to process text messages, photographs, video, and telematic data  
20 packets in addition to the landline and cellular calls processed in the current network.

21 The ESI Net Contract is scheduled for three phases. "Phase 1," including a test pilot  
22 for eight counties, already has been implemented by Qwest and its subcontractor Intrado, at

1 a cost of \$1.2M. The pilot project is in Benton, Ferry, Island, Lewis, Skamania, Spokane,  
2 Thurston, and Yakima Counties and uses national technical standards for implementation.<sup>5</sup>

3 “Phase 2” (contract amendment “B”) is the implementation of the NG 911 network  
4 and database in the remaining 31 county and Washington State Patrol E911 PSAPs and will  
5 cost \$5.6M.

6 “Phase 3” is the last phase of the NG 911 system construction. Phase 3 does not  
7 include incumbent local exchange network elements but rather provisioning of the PSAPs.  
8 The Emergency Management Division of the Military Department will purchase equipment  
9 for individual PSAPs through independent equipment vendor contracts. There will be  
10 implementation of call answering equipment in accordance with national 911 standards.  
11 This will allow the 911 Public Safety Call Receivers to receive and process NG 911 data  
12 and to access the NG 911 features.<sup>6</sup> PSAPs will receive multimedia contained in NG 911  
13 network calls after all PSAP equipment, (including E911 call-taking equipment, Computer-  
14 Aided Dispatch (CAD), and mapping) are replaced to ensure all the media types may be  
15 processed and stored. Ultimately, in Phase 3, PSAPs will be able to receive full digital to  
16 digital voice and data transmissions from initiation to conclusion through the network.

17 Only after all counties transition to Phase 2 will any county PSAPs move to Phase 3.  
18 At the end of the NG 911 system installation, all thirty-nine counties in the state of  
19 Washington State will operate within the NG 911 system.  
20

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<sup>5</sup> NENA Standard “Interim VoIP Architecture (i2) <http://www.nena.org/standards/technical/voip/interim-voip-architecture-i2>

<sup>6</sup> NENA Standard for functional interface <http://www.nena.org/standards/technical/voip/functional-interface-NG911-i3>.

1 **Q. What will Qwest be paid under the ESI Net Contract?**

2 A. Under the ESI Net Contract, Qwest will receive a total of \$6,880,910.00 (\$6.9M.). For the  
3 fiscal 2010–2011 biennium, the State’s E911 spending authority is \$44,508,000 (\$44.5M).

4  
5 **Q. What is the timeline for the ESI Net Contract?**

6 A. The transition to the ESI Net Contract for NG 911 is a planned progression in phases over a  
7 three year period from 2010 to 2012. According to the Emergency Management Division of  
8 the Military Department, proceeding in phases is a planning tool to ensure the ESI Net  
9 network and database are reliable and the transition from the current E911 network is  
10 seamless.

11 Phase 1 is currently underway. Phase 2 is scheduled to begin in fiscal year 2011.  
12 Phase 3 is planned for fiscal year 2012. After NG 911 is implemented, the entire E911 and  
13 NG911 network system in Washington State, including policy, legislative, and regulatory,  
14 will complete a legislatively required review to assure that the transition occurred in a  
15 technology and vendor neutral manner.

16  
17 **Q. What does migration to the NG 911 emergency network “ESI Net Contract” require?**

18 A. To migrate from the current Washington E911 network to a system incorporating NG911  
19 over the three year contract period requires keeping portions of the existing ILEC network.  
20 The ILEC network will remain in place until all elements of NG 911 under the ESI Net  
21 Contract are complete. Network trunks for E911 calls to E911 Selective Router switches  
22 and for Automatic Location Information (ALI) circuits using Frame Relay will remain in  
23 place until the transition is completed to NG 911 in 2012.

1 **Q. Has Qwest developed a testing interface associated with the ESI Net Contract for NG**  
2 **911 systems?**

3 A. Yes. Currently there is a sophisticated interface test site and laboratory used for the Qwest  
4 ESI Net Trial that is located in Qwest's Washington headquarters building in downtown  
5 Seattle. Transition to the NG 911 includes the Centralized Automatic Message Accounting  
6 (CAMA) trunks<sup>7</sup> that aggregate at the "mated" tandem switches and will be migrated to the  
7 redundant (currently in place) "Resource Control Layer" (RCL) servers located in Qwest's  
8 Seattle and Yakima locations. After transition to the NG 911, Qwest Central Office  
9 Selective Routers (911 switches) will be used for the 911 network, and the Selective Routers  
10 belonging to other carriers, including Frontier and CenturyLink, will no longer be used.

11  
12 **Q. Do 911 system failures impact consumers?**

13 A. Yes. As explained by Staff witness Mr. Robert Williamson, failures associated with  
14 networks have a direct negative effect on customers as seen in the cases in Hawaii and the  
15 New England states. While the effects of system failures regarding ordering, provisioning or  
16 billing systems are significant and substantial, system failures associated with any 911  
17 system (911, E911 or NG911) can lead to catastrophic results that directly endanger the  
18 public.

19  
20 **Q. Has CenturyLink or Qwest proposed revising the ESI Net Contract?**

21 A. No. A significant amount of Staff effort was expended in obtaining information related to  
22 the impact to the E911 system of the proposed transaction. Qwest will be the sole provider

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<sup>7</sup> Trunks are the communication lines between the Local Exchange Carrier Central Office switch and the PSAP.

1 of E911 services in Washington after completion of the requirements contained in ESI Net  
2 contract.

3 The proposed transaction is scheduled for completion mid-way through the ESI Net  
4 contract implementation of the new 911 system. Initially, CenturyLink stated the following,  
5 in response to UTC Staff Data Request No. 100:

6 “Century Link recognizes that Qwest ILEC is a large PSAP provider in the state.  
7 The company recognizes the importance of 911 and public safety. Until the  
8 Transaction is complete, and the necessary decisions have been made on how to best  
9 integrate the two companies, plans for the billing database to be used have not been  
10 developed.”

11  
12 Subsequently, the company provided a supplemental response, stating, “both Qwest  
13 and CenturyLink will continue to honor all existing contractual agreements associated with  
14 911 services, consistent with the terms and conditions of those agreements until they are  
15 extended, renegotiated or expire.” CenturyLink’s response and supplemental response are  
16 contained in Exhibit \_\_ (RB-4).

17 On September 9, 2010 a joint technical conference was convened at the Commission  
18 with subject matter experts and executives from CenturyLink and Qwest. At this meeting,  
19 network transition information was discussed in detail. Staff was assured by CenturyLink  
20 and Qwest company representatives that no changes regarding the Qwest ESI Contract were  
21 contemplated.

22  
23 **Q. Does Staff have concerns regarding the timeline of the ESI Net Contract in relation to**  
24 **the timing of the proposed transaction?**

25 A. Yes. Staff is concerned that during the critical timeframe of NG 911 implementation, the  
26 management of both CenturyLink and Qwest will be in the midst of a significant transition

1 due to the proposed transaction. The ESI Net Contract may have to compete for  
2 management attention that is devoted to other aspects of merging systems across Qwest's  
3 fourteen-state region. It appears that at the same time the NG 911 system is implemented,  
4 operations will be merging in thirteen other states in the region.<sup>8</sup>

5  
6 **VI. NUMBER CONSERVATION AND RATE CENTER CONSOLIDATION**

7  
8 **Q. What is numbering resource conservation?**

9 A. Numbering resource conservation is a series of methods to delay the exhaustion of  
10 telephone numbering resources in the North American Number Plan (NANP). Number  
11 conservation measures assure appropriate allocation of telephone numbers across all  
12 communications services and devices, and promote the efficient assignment of telephone  
13 numbers. The benefit of numbering resource conservation is extending "the life" of number  
14 plan areas (NPA) or area codes. According to the FCC, telephone numbers are a valuable  
15 public resource.<sup>9</sup> This Commission has authority regarding methods of number  
16 conservation and the associated timelines. Once an area code is projected to exhaust,  
17 however, the FCC assumes responsibility to initiate the process and planning necessary to  
18 assign a new area code.

19  

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<sup>8</sup>See Exhibit No. \_\_ (RJB-6), which consists of a paper published by the National Regulatory Research Institute, dated July 9, 2010, Evaluating the Proposed Merger of CenturyLink and Qwest Communications.

<sup>9</sup>FCC Second Report and Order, CC Docket No. 99-200, FCC 00-249, para. 130.



1 **Q. What measures may be taken to promote number conservation efforts?**

2 A. There are three measures that promote number conservation: 1) rate center consolidation,  
3 which combines rate centers; 2) number pooling, which allocates one-thousand number  
4 blocks of number resources to service providers, allowing sharing of a ten-thousand block  
5 number code; and 3) local number portability(LNP), which allows customers to keep the  
6 same number when changing local carriers.

7 Rate center consolidation is the combination of two or more adjacent rate centers  
8 into one. Number conservation results because each new competing service provider needs  
9 only a single one-thousand block of numbers to serve the new rate center, instead of a one-  
10 thousand number block in each of the old rate centers.

11 Number pooling allows splitting a number “code” of ten thousand numbers into one-  
12 thousand block portions. Traditionally number blocks have been allocated to requesting  
13 carriers in blocks of 10,000. The entire prefix or code is associated with the rate center and  
14 therefore may not be used outside the rate center, in order to preserve billing by area code  
15 and prefix alone. The benefit of number pooling is that it prevents assignment of numbers in  
16 ten-thousand blocks to new service providers and allows assignment in one-thousand  
17 number blocks of only those resources necessary.

18 Local number portability allows a subscriber to change local carriers while keeping  
19 the same telephone number, so long as the wireline subscriber remains in the same rate  
20 center. Only existing customers can take their numbers with them; if a customer simply  
21 turns off service on a particular number, the service provider may still hold that number for  
22 reassignment at a future date.

23

1 **Q. Of these three measures, which one is the most effective in conserving numbering**  
2 **resources?**

3 A. The FCC states that the demand by most service providers for numbering resources in each  
4 rate center in which they operate greatly contributes to number exhaust.<sup>10</sup> Numbering  
5 resource exhaustion is due in large part to fragmentation of central office code assignments  
6 that results from a large number of geographically small rate centers in a single area code.  
7 Rate center consolidation is the most efficient means a state commission may use to address  
8 numbering resource conservation including number pooling. Number pooling has been  
9 implemented in this state,<sup>11</sup> and the FCC continues to address LNP efficiency measures and  
10 number conservation.<sup>12</sup>

11 The FCC has noted rate center consolidation is a measure that has expressly not been  
12 preempted by the FCC and that is available to state regulators for number conservation. The  
13 FCC recognizes links between rate center consolidation and number efficiency, noting that  
14 this number conservation method can be successful in “reducing the demand for NXX  
15 codes, improving number utilization, and prolonging the life of an area code.” The FCC  
16 states that “[i]n areas where there are contiguous rate centers with identical calling areas and  
17 identical exchange rates, rate center consolidation may be fairly easy and painless to  
18 implement.”<sup>13</sup> The North American Number Counsel (NANC), which advises the FCC on  
19 numbering matters, also has taken up the issue of rate center consolidation through its

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<sup>10</sup> The FCC Second Report and Order (CC Docket No. 99-200 and CC Docket No. 96-98) Released December 29, 2000, ¶ A 21. [Http://www.fcc.gov/Bureaus/Common\\_Carrier/Orders/2000/fcc00429.txt](http://www.fcc.gov/Bureaus/Common_Carrier/Orders/2000/fcc00429.txt)

<sup>11</sup> WUTC Docket No. UT-060012.

<sup>12</sup> Local Number Portability Porting Interval and Validation Requirements; Telephone Number Portability, WC Docket No. 07-244, CC Docket No. 95-116, Report and Order, 25 FCC Rcd 6953 (2010) (Standardized Fields Order).

<sup>13</sup> Numbering Notice, at ¶ 113, FCC CC Docket No. 96-98.

1 numbering resource optimization subcommittee.<sup>14</sup> Benefits of rate center consolidation  
2 include allowing more customers to be served by a single prefix and allowing fewer prefixes  
3 to cover the same geographic area. Rate center consolidation can immediately reduce  
4 number demand by new communications service providers in a state due to the fact that  
5 there are fewer rate centers; thus more customers may be served by fewer prefixes in the  
6 same area. By reducing the number of rate centers, service providers entering the area have  
7 the capability to serve all customers in a specified region with fewer blocks of numbers.<sup>15</sup>  
8

9 **Q. What are incumbent local exchange carrier rate centers?**

10 A. A rate center is a geographic area designated by an ILEC for billing purposes. The rate  
11 center is assigned vertical and horizontal (V&H) coordinates for billing purposes. The  
12 telecommunications industry defines a rate center as the point within an exchange area  
13 defined by rate map coordinates used as a basis for toll rates and local rates. A rate center is  
14 an area that uses a common call origination or termination point for determining point-to-  
15 point local or toll calling charges. Rate centers are known by their rate center “name,” and  
16 the point used to define their locations is a set of Vertical and Horizontal Coordinates (V&H  
17 Coordinates) expressed in a paired number value. Rate centers are used within the  
18 assignment, routing and billing (rating) databases in the communications industry. With  
19 few exceptions, every geographic telephone number in the North American Numbering Plan  
20 (“NANP”) is associated with only one rate center.<sup>16</sup>

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<sup>14</sup> <http://www.fcc.gov/wcb/cpd/Nanc/mn961202.html>

<sup>15</sup> Report on Impact of Rate Center Consolidation on NANP Exhaust, February 28, 2002; The NANP Expansion Number Optimization (NENO) Working Group of the North American Numbering Council (NANC) North American Number Optimization Working Group “derived a 45 percent number conservation rate after the examination of the code assignment data in area codes where rate center consolidation had occurred.”

<sup>16</sup> The terms “Rate Area”, “Rate Zone”, Rate District”, or “Exchange” may be used in place of Rate Center.

1 **Q. What is rate center consolidation (RCC) and what relation does this have to area codes**  
2 **and telephone numbers?**

3 A. Rate center consolidation involves aggregating two or more incumbent local exchange  
4 company rate centers into a single rate center so that a local service provider uses a single  
5 numbering resource unit (e.g., a one-thousand number block, or a ten-thousand number  
6 block) to serve customers in the combined area rather than requiring numbers from separate  
7 one-thousand number blocks (or ten-thousand number block) to serve customers in each of  
8 the rate centers that were combined.

9 The state of Washington is divided up into five number plan areas (NPA) or “area  
10 codes.” These five area codes are: 206, 253, 360, 425, 509. Each area code covers dozens of  
11 rate centers. A particular telephone code or prefix may be assigned in only one rate center.  
12 The number of area codes and telephone prefixes in a state is tied to the number of rate  
13 centers; thus the more rate centers there are in an area code, the more prefixes must be used  
14 to serve that area code. Numbering blocks of one thousand numbers or ten thousand  
15 numbers are needed in every rate center in which service is provided.<sup>17</sup> A number code may  
16 be assigned only to a single rating area; the more rating areas (rate centers) in an area code,  
17 the more codes that must be assigned. Thousands-block pooling produces number  
18 conservation benefits but will continue to be used up as new service providers and new  
19 services come into existence.

20  
21

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<sup>17</sup> “Number pooling” allows each company providing service within a particular rate center to have a one-thousand number block (number block) assigned to the company instead of an entire ten-thousand number code prefix (code.)

1 Q. Is there a cost to a rate center consolidation involving two-way extended area service  
2 (EAS) local calling?

3 A. Generally, cost is not a significant factor for two-way EAS local calling rate center  
4 consolidations.<sup>18</sup> An ILEC's cost to consolidate rate centers is typically not significant  
5 presuming the rate centers involved have two-way extended area local calling. The FCC  
6 contractors require formal notification from the state commission to revise the affected  
7 databases. The service providers use these databases for numbering resource  
8 administration, information, and call routing through the local exchange routing guide  
9 (LERG.) This aspect is not a significant cost factor in rate center consolidations.

10 In the discovery process, Staff received responses from the Joint Applicants to data  
11 requests on the subject of rate center consolidation. In response to one such Staff data  
12 request, the Joint Applicants stated the following:

13 Where the involved exchanges share *identical* local calling areas, Qwest is  
14 generally receptive to Rate Center consolidation at no cost to involved customers.  
15 Here Qwest's costs are labor-related and typically not in excess of \$10,000 per  
16 consolidation. While CenturyLink has not completed any studies to estimate the cost  
17 to consolidate rate centers within the CenturyLink territory, the cost/impact is  
18 typically not significant presuming: 1) the rate centers to be consolidated are  
19 contiguous and have identical calling scopes for local and extended area calling; 2)  
20 the end user rates for each of the rate centers to be consolidated are the same; 3) the  
21 rate centers share a common switch routing hierarchy (i.e. host/remote and tandem);  
22 4) each exchange or wire center involved in the consolidation retains its existing  
23 locality identifier in the LERG.<sup>19</sup>  
24

25 Staff has received no evidence demonstrating a significant system or labor cost  
26 impact to date. As recently as this year, CenturyTel of Washington, Inc., completed rate

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<sup>18</sup> Guidelines: The Alliance for Telecommunication Industry Solutions (ATIS) <http://www.atis.org/inc/docs.asp>.

<sup>19</sup> See Exhibit \_\_ (RB-5) for the Joint Applicants' complete supplemental response to UTC Staff Data Request No. 138.

1 center consolidation between three rate centers with two-way extended area service local  
2 calling in the Gig Harbor, Washington, area.<sup>20</sup>

3  
4 **Q. Have there been rate center consolidations in Washington and in other states?**

5 A. Yes. This Commission has an extensive history of consolidating rate centers for numbering  
6 resource conservation. Rate center consolidations have improved number utilization and  
7 allowed successful conservation of numbering resources. Between 1999 and 2010, there  
8 have been many such consolidations in Qwest, the CenturyLink ILECs (including Embarq),  
9 and Frontier (formerly Verizon) territories. In 1998 there were 304 rate centers in  
10 Washington state. Currently there are 244. Commission dockets pertaining to rate center  
11 consolidations include: UT-991627, UT-021323, UT-002030, UT-031803, UT-040788, UT-  
12 042183, UT-051807, UT-060012, UT-080934, and UT-100224. In other states, rate center  
13 consolidation has occurred in multiple area codes.<sup>21</sup>

14  
15 **Q. Should the Commission be concerned about the impact of the transaction on  
16 numbering resource conservation?**

17 A. Yes. Of concern is the post-transaction transition timeline. The combination under  
18 common ownership of the ILECs involved in this transaction represents a golden  
19 opportunity to consolidate rate centers not only within each operating entity but across  
20 operating entities before the state requires any new area codes. The importance of  
21 implementation of all appropriate numbering resource means, including rate center

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<sup>20</sup> See Docket UT-100224.

<sup>21</sup> Area Codes (NPAs) nationally with rate center consolidations completed include 303, 816, 314, 214, 972, 817, 713, 281, 210, 512, and 915.

1 consolidations, at the front end of the proposed transaction is to assure fewer numbers are  
2 needed by all service providers in the rate center. Rate center consolidations cannot be  
3 completed during an overlay or area code split due to the impact to the E911 system  
4 emergency management network and systems translation requirements. If time is budgeted  
5 by the CenturyLink ILECs and Qwest early in the transition process, the necessary rate  
6 center consolidations should occur prior to the timeline for any new area code  
7 implementation in Washington.

8  
9 **Q. What rate center consolidations does Staff propose?**

10 A. Staff proposes to consolidate those rate centers that have two-way extended area service  
11 (EAS) local calling. Staff completed an analysis of the tariffs with two-way EAS local  
12 calling routes and developed an initial list of forty two rate centers that should be  
13 consolidated resulting in fifteen rate centers. Exhibit No. \_\_ (RB-4) shows that these forty-  
14 two rate centers could be consolidated into fifteen. The two-way EAS local calling identifies  
15 the community of interest and local calling for those rate centers. Staff recommends the  
16 companies identify all two-way EAS local calling routes.

17  
18 **Q. Does a rate center consolidation impact the emergency E911 systems or network?**

19 A. Yes. Timing a rate center consolidation during a new area code implementation may  
20 negatively impact the E911 system network. When a new area code is implemented,  
21 changes to the E911 selective router switches are necessary; thus completing a rate center  
22 consolidation in conjunction with adding a new area code may cause complications to the  
23 emergency system network. A new area code or number plan area should not be

1 implemented at the same time as rate center consolidations due to the complexity and  
2 potential impact to the state emergency E911/NG911 network system routing, so timing  
3 remains critical. It is important to include rate center consolidations at the early part of the  
4 proposed transaction to assure critical timelines are guaranteed complete prior to any area  
5 code implementation project initiation.<sup>22</sup>

## 7 VII. PROPOSED CONDITIONS

8  
9 **Q. What conditions are you proposing before the transaction is approved?**

10 A. I am proposing that two conditions be put in place. The first is that Century Link shall  
11 continue to honor all contractual agreements held by Qwest associated with the provision of  
12 911 service consistent with all terms and conditions of those agreements, including the  
13 Qwest Communications Contract E09-196 ESI Net Project. The second concerns rate center  
14 consolidation: Within one year of the close of the transaction, or by March 31, 2012,  
15 whichever date comes first, CenturyLink ILECs and Qwest shall complete rate center  
16 consolidations between all rate centers within and between the companies that have two-  
17 way, extended area local calling. All activities required for rate center consolidation,  
18 including distribution of timely notifications, shall be completed by this date.

19  

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<sup>22</sup> Rate center consolidation is not addressed during area code relief due to potential impact to the E911 systems. ATIS GUIDE July 30, 2010 Technical Specifications, Appendix F: Issues to be Considered During NPA Relief Implementation, Appendix G: Technical Considerations, NENA Guidelines RCC to 911: <http://www.nena.org/technical-committee-network>; [http://www.nena.org/sites/default/files/03-505\\_20061108.pdf](http://www.nena.org/sites/default/files/03-505_20061108.pdf).



1 Q. Does this conclude your testimony?

2 A. Yes.