

**Exhibit No. \_\_\_T (CTL-1T)  
Docket UT-140597**

**Witnesses: Mark Reynolds  
Tim Betsch  
Stacy Hartman**

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**QWEST CORPORATION D/B/A  
CENTURYLINK QC,**

**Respondent.**

**DOCKET UT-140597**

**TESTIMONY OF CENTURYLINK**

**REVISED OCTOBER 27, 2015**

*CenturyLink Testimony in Support of Settlement*

**October 13, 2015**

1 **I. INTRODUCTION**

2 **Q. Who is sponsoring this testimony?**

3 A. This testimony is sponsored by Qwest Corporation, d/b/a CenturyLink QC  
4 (“CenturyLink” or “Company”) and is offered in support of the Settlement  
5 Agreement entered into between Commission Staff and CenturyLink.  
6

7 **Q. Please state your names.**

8 A. Our names are: Mark Reynolds, Tim Betsch, and Stacy Hartman.  
9

10 **Q. What is the purpose of your testimony?**

11 A. Our testimony describes and supports all provisions of the Settlement Agreement  
12 signed by Staff and CenturyLink (“Settlement Agreement”). The Settling Parties  
13 filed their initial Settlement Agreement with the Washington Utilities and  
14 Transportation Commission (Commission) on September 10, 2015.  
15

16 CenturyLink agrees that the resolution of the Commission’s complaint as reflected in  
17 the Settlement Agreement is consistent with the public interest and should be  
18 approved. CenturyLink requests that the Commission issue an order approving the  
19 Settlement Agreement without modification or addition.  
20

1 **Q. Is the settlement a full settlement pursuant to WAC 480-07-730(1)?**

2 A. No, it is not a full settlement because Public Counsel is not a party to the agreement.  
3 However, Staff and CenturyLink believe that the Settlement Agreement fully and  
4 appropriately resolves all of the issues in the litigation.

5

6 **III. JOINT TESTIMONY**

7 **Q. Please provide an overview of the settlement.**

8 A. The terms of the settlement are set forth below:

9 **First Admission.** CenturyLink admits that it violated RCW 80.36.080.

10 **Second Admission.** CenturyLink admits that it violated WAC 480-120-450(1).

11 **Third Admission.** CenturyLink admits that it violated WAC 480-120-412(2).

12 **Scope of Admissions.** CenturyLink admits the violations above for settlement  
13 purposes only.

14 **Penalty.** CenturyLink will pay to the Commission a penalty of \$2,854,750. The full  
15 penalty amount is due within 45 calendar days of the Effective Date of this  
16 Agreement.

17 **FCC Compliance Reports.** CenturyLink will contemporaneously submit to Staff  
18 copies of all “compliance reports” filed with the Federal Communications  
19 Commission (FCC) pursuant to paragraph 13(a) of the 911 outage consent decree  
20 adopted by the FCC on April 6, 2015, in File No. EB-SED-14-00017187.

21 **Compliance Officer.** CenturyLink will designate a compliance officer responsible  
22 for monitoring the Company’s compliance with this Agreement.

1 **PSAP Trunk Member (PTM) Threshold Counter Quarterly Reporting.** Until all  
2 Washington Public Safety Answering Points (PSAPs) have completed the transition  
3 to Next Generation 911 (NG911), CenturyLink will submit to Staff quarterly reports  
4 detailing (1) the maximum number of messages the Company’s PTM threshold  
5 counter can process; (2) the frequency of manual review (e.g., daily, weekly,  
6 monthly); and (3) the counter value as of the reporting date.

7 **Annual Audit.** Until all Washington PSAPs have completed the transition to  
8 NG911, CenturyLink will: (1) annually perform a 911 Circuit Diversity Audit as  
9 outlined in the FCC’s Report and Order in PS Docket No. 13-75, issued on  
10 December 12, 2013 (FCC 13-158); and (2) report the results to Staff.

11 **IP Transition Status Reports.** Until all Washington State PSAPs have completed  
12 the transition to NG911, CenturyLink will submit to Staff annual Internet Protocol  
13 (IP) transition status reports.

14  
15

V. CENTURYLINK TESTIMONY

16 TESTIMONY OF MARK REYNOLDS

17 Q. Please state your name and business address.

18 A. My name is Mark Reynolds. My business address is 1600 - 7th Ave., Room 1506,  
19 Seattle, Washington 98191.

20

21 Q. Please describe your backgrounds and qualifications.

22 A. I am the Vice-President Public Policy for CenturyLink in Washington and four other  
23 states. I have been employed by CenturyLink or one of its predecessor companies

1 since 1981 and have had various positions in a number of organizations, including  
2 finance, public policy, interconnection negotiations, and cost analysis. I have  
3 appeared in multiple proceedings before this Commission and in other states  
4 testifying on various issues in cost dockets, interconnection arbitrations, AFOR  
5 proceedings, mergers, and settlements of contested cases.

6

7 **Q. In general, what is CenturyLink's position with regard to the issues in the**  
8 **Complaint?**

9

10 A. Although CenturyLink did not file an answer to the complaint, CenturyLink did  
11 disagree with some of the findings and conclusions in the Investigation Report and  
12 some of the recommendations in the complaint. Nevertheless, CenturyLink believes  
13 that the Settlement Agreement presents a fair resolution of the outstanding issues.

14

15 **Q. Why did CenturyLink agree to settle the case with Staff?**

16 A. CenturyLink understands that the provision of 911 service is an extremely important  
17 function, and believes that the Settlement Agreement reflects the seriousness of the  
18 outage. CenturyLink takes its 911 obligations very seriously and the penalty and the  
19 reporting requirements as requested by Staff initially and agreed to by CenturyLink  
20 reflect that CenturyLink is not asking for any mitigation or reduction in the  
21 recommendation. Because CenturyLink was willing to agree to Staff's terms, with  
22 some minor changes to reflect updated progress and events, the company was able to  
23 reach a settlement with Staff to resolve the case.

24

1 *Violations and Penalty*

2 **Q. What does the Settlement Agreement provide in terms of admissions to rule**  
3 **violations and a penalty?**

4  
5 A. For purposes of settlement, CenturyLink admits to rule violations and will pay a  
6 penalty of \$2,854,750. CenturyLink will pay the penalty within 45 days of the date  
7 of a final order approving the Settlement Agreement or the date that an initial order  
8 approving the Settlement Agreement becomes a final order. As described in the  
9 testimony of Ms. Paul, and CenturyLink agrees, the penalty amount is significant and  
10 reflects the serious nature of the outage.

11

12 **Q. In the Staff Investigation Report, there was a recommendation that the**  
13 **Washington 911 traffic be distributed more evenly between the Englewood and**  
14 **Miami locations. Why is that provision not a part of the Settlement**  
15 **Agreement?**

16  
17 A. After a meeting among Staff, CenturyLink and Intrado, and the Company's provision  
18 of responses to data requests, Staff is satisfied that this recommendation has been  
19 implemented and the settling parties agreed that there was thus no need for it to be  
20 included in the Settlement.

21

22 **Q. In the Staff Investigation Report, there was a recommendation that Company**  
23 **make a presentation to the Commission at an open meeting regarding corrective**  
24 **action taken during and after the outage. Why is that provision not a part of**  
25 **the Settlement Agreement?**

26  
27 A. Staff and CenturyLink agreed that this issue could be addressed in CenturyLink's  
28 testimony in this matter, and therefore did not believe that this condition needed to

1 be a part of the Settlement. Mr. Betsch describes the corrective action work that  
2 Intrado performed, and continues to perform, to address the outage.

3

4 **Q. Is there anything you would like to add regarding this case?**

5 A. Yes. CenturyLink would like to reiterate that it recognizes the seriousness of this  
6 outage and the public safety obligations that come with the provision of 911 service.  
7 We take these obligations very seriously, and the contract to provide NG911 service  
8 to the State of Washington is an important part of CenturyLink's business in the  
9 state. CenturyLink has active and ongoing discussions with its vendor to enhance  
10 the quality of service that both companies provide.

11

12 **Q. Does this conclude your testimony in support of the Settlement Agreement?**

13 A. Yes.

14

15 **TESTIMONY OF TIM BETSCH**

16 **Q. Please state your name and briefly describe your responsibilities with Intrado.**

17 A. My name is Tim Betsch. I have been in the role of Customer Team Director at  
18 Intrado since July 28, 2014. I am responsible for the relationship between  
19 CenturyLink and Intrado related to the services that Intrado provides to CenturyLink.

20

21 **Q. Please provide a brief summary of the April 2014 outage.**

22 A. Intrado's PSAP Trunk Member (PTM) counter in the Englewood, Colorado  
23 Emergency Call Management Complex (ECMC) exceeded its administered

1 threshold, resulting in the system's inability to assign trunks for PSAP CAMA call  
2 delivery via the Englewood ECMC. The incident started at 11:54pm PT on April 9,  
3 2014, and lasted 6 hours and 12 minutes. During this incident 5,6275,684 call  
4 attempts from WA were not completed while 792 WA calls completed successfully  
5 through the Miami ECMC. This issue was resolved at 6:06am PT on April 10, 2014,  
6 when all calls from the Englewood ECMC were re-routed to the Miami ECMC.

7  
8 The error that occurred was in a counter (a software algorithm) used to reserve  
9 CAMA PSAP trunk members. The counter reached a limit within the software  
10 preventing calls that had entered the Englewood IP selective router from being  
11 delivered. This counter is used for CAMA PSAPs but not IP PSAPs. For an IP  
12 PSAP, all calls are presented directly to the Customer Premise Equipment software  
13 which determines whether or not to accept the call. Since an IP PSAP does not use  
14 CAMA trunks, there is no need to use a software algorithm (counter) to reserve those  
15 trunks.

16  
17 **Q. Please describe what Intrado has done as a result of the outage to ensure that**  
18 **there will not be a reoccurrence of this nature.**

19  
20 A. Multiple changes have been implemented within Intrado's systems:

- 21
- 22 • More actionable alarm text was created for each place in the software code where an  
23 alarm could be generated. (Completed September 2014).
  - 24 • The PTM counter range used for reserving a PSAP CAMA trunk has been increased  
25 to a range of two billion for each ECMC. At the rate that the counter is currently  
26 incremented (620,000 per day per ECMC), this range would not be exhausted for  
27 269 years. Additionally, this counter is only used for CAMA PSAPs. The number  
28 of CAMA PSAPs is decreasing, not increasing.
  - 29 • The PTM counter values are being monitored on a daily basis and such monitoring  
30 will continue until the architecture is modified to remove this algorithm.



- 1 • An enhanced alarming system has been implemented with a specific, identifiable  
2 alarm for the moment when the PTM counter threshold is reached.  
3 • A new alarm was created based upon percentage of successful calls processed on a  
4 given ECMC compared to total calls for that ECMC over a 15 minute sample period.  
5 (Completed November 2014).  
6 • Upon experiencing an unexpected error during call setup at an ECMC, the call is sent  
7 to the other ECMC for processing. (Completed November 2014).  
8 • The Media Gateway Controllers were re-configured to distribute roughly 50% of all  
9 calls received by each ECMC to the Miami ECMC and roughly 50% of calls to  
10 Englewood ECMC. (Completed December 2014).  
11 • The PTM threshold counter will be eliminated from the ECMC application logic to  
12 prevent any chance of an issue in the future. (Planned to be implemented in January  
13 2016)

14  
15

16 **Q. There were some issues with communications between Intrado and**  
17 **CenturyLink during the outage. Please describe what has been done to**  
18 **ensure/improve communications during an outage?**

19

20 A. In response to this outage, the Network Operations Center (NOC) organizations from

21 CenturyLink and Intrado have implemented the following:

- 22 • New service level agreements were developed to drive speed of response during  
23 incidents. Key measures include Intrado calling CenturyLink's Network Operations  
24 Center (NOC) within 10 minutes of the discovery of a high severity incident.  
25 • Implementation of electronic "trouble ticket" sharing between CenturyLink and  
26 Intrado is currently underway (expected in November 2015).  
27 • Clear communication protocols have been established between organizations to  
28 improve troubleshooting processes. This includes the use of a conference bridge for  
29 joint troubleshooting during incidents.  
30 • Escalation paths were clarified and rosters of managers-on-duty are shared between  
31 the companies to facilitate escalations as needed.  
32 • New processes were implemented to speed the implementation of PSAP  
33 abandonments and the mitigation of issues.  
34 • The Intrado and CenturyLink NOC organizations meet monthly to discuss the team's  
35 joint performance in achieving all Service Level Agreements and plans for future  
36 improvement.

37  
38

39 **Q. Are there other things that Intrado has done to improve the reliability of the**  
40 **911 system/balance traffic, etc.?**

41

1 A. The April 2014 incident was related to a software issue. As a result, Intrado has  
2 worked to make changes to our ongoing change management processes for software  
3 changes to reduce future risks. Intrado has implemented the use of clear  
4 maintenance windows during low volume call times for any core software upgrades,  
5 strengthened risk assessments prior to any system changes, and improved  
6 communication between CenturyLink and Intrado during software change events.

7

8 **Q. The PTM counter was an issue in the April 2014 outage, and there is a condition**  
9 **in the Settlement Agreement that addresses quarterly reporting on the PTM**  
10 **counter. Can you please describe what Intrado's plans are regarding the PTM**  
11 **counter?**

12

13 A. In the future, the software platform used by Intrado's ECMC database will be  
14 upgraded to eliminate the need for a PTM counter. Information regarding trunk  
15 usage will be shared between the ECMC's in Englewood and Miami using a new  
16 shared memory application. This application will assign a flag to each call path as  
17 each ECMC places it into service. This flag will then be communicated to the other  
18 ECMC via a shared memory application. This new process of assigning the flag will  
19 eliminate the need for a counter at each site, and prevent any recurrence of issues  
20 with the threshold counter range hitting a limit. As a result, there will no longer be a  
21 threshold counter value to report.

22

23 **Q. Does this conclude your testimony in support of the Settlement Agreement?**

24 A. Yes.

25

1 **TESTIMONY OF STACY HARTMAN**

2 **Q. Please state your name and describe your responsibilities with CenturyLink?**

3 A. My name is Stacy Hartman and I am a Director in the Public Policy organization at  
4 CenturyLink. I have over 15 years of experience in the communications industry  
5 with CenturyLink and its predecessor companies. I currently represent CenturyLink  
6 as the subject matter expert for regulatory reporting requirements in connection with  
7 network reliability, outage reporting, and 911 related issues. As well, for these  
8 issues, I serve as the single point of contact for the FCC.

9

10 ***FCC Compliance Reports and Compliance Officer***

11 **Q. What terms have the Parties agreed to regarding FCC compliance reports and**  
12 **the designation of a compliance officer?**

13

14 A. Under the Company's consent decree with the FCC, CenturyLink is required to file  
15 compliance reports with that agency. The settling parties have agreed that  
16 CenturyLink will file copies of those reports with Staff when they are provided to the  
17 FCC. CenturyLink has also agreed to designate a compliance officer who will be  
18 responsible for monitoring the Company's compliance with the terms of this  
19 Settlement Agreement.

20

21 ***Technical Commitments***

22 **Q. What technical commitments are being made by CenturyLink under the**  
23 **Settlement Agreement?**

24

25 A. CenturyLink will provide three types of reports on various intervals pursuant to the  
26 Settlement Agreement.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

First, CenturyLink will make quarterly reports regarding the PSAP trunk member (PTM) threshold counter. The counter is what caused the April 2014 outage when it reached its predetermined capacity. CenturyLink has committed that until all Washington PSAPs have completed the transition to Next Generation 911 (NG911), CenturyLink will submit to Staff quarterly reports detailing (1) the maximum number of messages the Company's PTM threshold counter can process; (2) the frequency of manual review (e.g., daily, weekly, monthly); and (3) the counter value as of the reporting date.

Second, until all Washington PSAPs have completed the transition to NG911, CenturyLink will: (1) annually perform a 911 Circuit Diversity Audit as outlined in the FCC's Report and Order in PS Docket No. 13-75, issued on December 12, 2013 (FCC 13-158); and (2) report the Washington-specific results to Staff.

Finally, until all Washington State PSAPs have completed the transition to NG911, CenturyLink will submit to Staff annual IP transition status reports which will detail which Washington PSAPs have converted to NG911 and when those conversions took place.

**Q. Please describe the portions of the Settlement Agreement that are within your areas of expertise.**

A. I am most familiar with the requirements in the Settlement Agreement that are related to the Consent Decree with the FCC as well as the FCC's 911 reliability

1 rules. Requirements under the Consent Decree include the designation of a  
2 compliance officer, the compliance plan, and the submission of periodic compliance  
3 reports.

4  
5 The compliance reports to be provided to WUTC under the Settlement Agreement  
6 are the same as those that will be provided to the FCC under paragraph 13 of the  
7 FCC Consent Decree. Under the Consent Decree, each Compliance Report is  
8 required to include a detailed description of CenturyLink's efforts during the relevant  
9 period to comply with the terms and conditions of the Consent Decree and the FCC's  
10 rules regarding 911 service reliability and outage notification. At a minimum, each  
11 Compliance Report is required to address the following:

- 12 1) Efforts to proactively manage the risk of 911 outages through actions to  
13 Identify, Protect, Detect, Respond, and Recover, as discussed in the Consent  
14 Decree.
- 15 2) Specific outage detection mechanisms and failure alarms implemented under  
16 CenturyLink's Compliance Plan, including an explanation of any other  
17 measures implemented or proposed to better detect a 911 outage of similar  
18 scope and duration to the April 2014 outage.
- 19 3) Proactive planning for PSAP outage notification, including any changes or  
20 improvements to CenturyLink's Operating Procedures made as a result of  
21 discussions with PSAPs.
- 22 4) Summary information regarding any information-sharing agreements with  
23 subcontractors reviewed or revised under the Consent Decree.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

**Q. Please describe the requirement that CenturyLink report the results of the FCC's 911 diversity audit?**

A. As part of the FCC's 911 reliability rules, the FCC requires Covered 911 Service Providers, including CenturyLink, to annually perform 911 diversity audits as outlined in the FCC's Report and Order in PS Docket No. 13-75, issued on December 12, 2013 (FCC 13-158). Specifically, Covered 911 Service Providers are required to:

- Audit critical 911 circuits annually to ensure physical diversity,
- Tag critical 911 circuits to minimize risk of reconfiguration (tagging can be physical or computerized/database-driven), and
- Ensure no single points of failure between the Selective Router, Automatic Location Identification/Automatic Number Identification (ALI/ANI) database, or equivalent NG911 component, and the Central Office serving the PSAP; if the single point(s) of failure are not eliminated, then describe alternate paths taken.

Covered 911 Service Providers will file their initial certification on October 15, 2015, which will include information detailing at least 50% of the company's critical 911 circuits. The first full (i.e., 100%) certification is due on October 15, 2016 and 100% certification is due annually thereafter (i.e., October 15, 2017, October 15, 2018, etc.).

1 **Q. The Settlement Agreement also requires CenturyLink to report on the IP**  
2 **transition and the threshold counter?**

3  
4 A. Yes. The reports on IP transition will be provided to Staff annually, and will  
5 describe which PSAPs have converted to NG911, and when that conversion took  
6 place. This will allow the Staff to monitor the status of NG911 conversion and  
7 provide insight into how far along the state is in terms of full conversion.

8  
9 The threshold counter issue has been discussed in Mr. Betsch's testimony. That  
10 provision is most likely moot due to architecture changes that will eliminate the  
11 counter in January 2016. However, if that modification is delayed for any reason,  
12 the provision will require quarterly reports until the counter is eliminated.

13 CenturyLink will coordinate with Intrado to obtain and report that information as  
14 required.

15

16 **VI. CONCLUSION**

17 **Q. What is your overall recommendation in this case?**

18 A. We believe that the Settlement Agreement represents a reasonable resolution to the  
19 Complaint in this case. The Settlement Agreement is in the public interest and we  
20 request that the Commission issue an order approving the Settlement Agreement.

21

22 **Q. Does this conclude your Joint Testimony?**

23 A. Yes.