BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

CENTURYLINK
COMMUNICATIONS, LLC.,

Respondent.

TESTIMONY OF

JACQUE HAWKINS-JONES

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Customer Impact, Call Estimate, Penalty Recommendation, PSAP Communication

December 15, 2021

CONFIDENTIAL PER PROTECTIVE ORDER IN DOCKET UT-181051
REDACTED VERSION
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I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Jacque Hawkins-Jones, and my business address is 621 Woodland Square Loop S.E., Lacey, Washington, 98503. My business mailing address is P.O. Box 47250, Olympia, Washington, 98504-7250. My business email address is Jacque.Hawkins-Jones@utc.wa.gov.

Q. By whom are you employed and in what capacity?
A. I am employed by the Washington Utilities and Transportation Commission (Commission) as a Compliance Investigator in the Compliance Investigations Section of the Consumer Protection Division.

Q. How long have you been employed by the Commission?
A. I have been employed by the Commission since August 2019.

Q. Please state your qualifications to provide testimony in this proceeding.
A. I have an associate degree from Olympic College and I am a certified investigator for the state of Washington. I have approximately eight years of experience as an investigator with regulatory agencies in the state of Washington. As a compliance investigator in the Consumer Protection Section, I have conducted numerous investigations related to the business practices of regulated utility or transportation companies, including telecommunications companies.
Q. Have you testified previously before the Commission?
A. Yes. I have testified in other enforcement proceedings involving Commission regulated transportation industries, including Docket TV-200029 and Docket TV-190835, which involved testimony related to companies operating as household goods carriers without the required Commission-issued permit.

II. SCOPE AND PURPOSE OF TESTIMONY

Q. How did you become familiar with the matters in this proceeding?
A. I was assigned to work with the Commission’s Regulatory Staff (Staff) to investigate whether CenturyLink Communications, LLC d/b/a Lumen Technologies Group (CenturyLink or Company) violated any state laws or regulations in connection with the December 2018 Enhanced 911 (E911) outage. I am one of the co-authors of the Staff Investigation Report that provided the evidentiary basis for the Commission’s complaint.

Q. What is the scope and purpose of your testimony?
A. I focus my testimony on the Washington residents affected by the December 2018 CenturyLink 911 outage. Specifically, I address CenturyLink’s failure to contact Public Safety Answering Points (PSAPs) regarding the December 2018 major outage. I also discuss the impact of the outage on consumers and the number of calls impacted by the outage. Importantly, I also discuss Staff’s revised recommended penalty, based on the number of calls impacted and the Company’s failure to notify...
PSAPs about the major outage. Finally, I discuss Staff’s follow up communication
with the PSAPs that were served by CenturyLink at the time of the outage.

III. DISCUSSION

A. Background

Q: Please describe Washington’s 911 system at the time of the outage?

A: CenturyLink was the major incumbent Local Exchange Carrier (LEC) offering
telephone, data, and other services in the state of Washington. Additionally,
CenturyLink maintained statewide responsibility for the underlying network and
infrastructure elements of the state’s E911 system, including inter- and intrastate
E911 date and call transmission from other carriers and service providers.

In 2004, Qwest Corporation contracted with West to provide E911 services in
Washington and other states. The contract required both Qwest and West to comply
with all applicable state, federal, county, and local ordinances, regulations, and
codes.

In June 2009, the Emergency Management Division within the Washington
Military Department (WMD), contracted with CenturyLink to develop and maintain
an Internet Protocol-enabled Emergency Service Information Network infrastructure
(ESInet 1).

On March 14, 2011, the Commission issued Final Order 14 in Docket UT-
100820, approving and adopting, subject to conditions, a multiparty settlement
agreement authorizing CenturyLink to acquire indirect control of Qwest Corporation,
Qwest LD Corp. and Qwest Communications Company LLC. CenturyLink assumed all of Qwest’s responsibilities under the contract.

The WMD, Emergency Management Division, oversees all E911 services in Washington state. In 2009, it contracted directly with CenturyLink to provide E911 services through ESInet 1. CenturyLink has contracted some functions of the E911 network to Colorado-based West, CenturyLink’s E911 Automatic Location Identification (ALI) database provider.

In June 2016, WMD’s Emergency Management Division, contracted with TeleCommunication Systems, Inc. (TSYS) to build, maintain, and operate a nationally compliant Next Generation 911 Emergency Services Internet Protocol Network (ESInet 2) and assume responsibility for processing E911 calls in Washington state. This required a service agreement between TYSYS and CenturyLink to provide cooperation and ongoing support during the three-phase transition.

**Q:** At the time of the December 2018 outage, what was the status of the transition of 911 service from CenturyLink to TSYS?

**A:** As part of the Washington Military Department’s (WMD) Emergency Management Division’s contract with TSYS to build, maintain, and operate the next generation 911 emergency service in Washington state, WMD implemented a three-phase migration approach to transition Washington’s 62 PSAPs from CenturyLink’s ESInet 1 to TSYS’s ESInet 2. Phase one of the transition involved switching or “migrating”
PSAPs from CenturyLink’s network to TSYS’s network. At the time of the outage, CenturyLink and TSYS were still in phase one of the transition.

Q. Please briefly describe the December 2018 E911 outage.
A. As detailed in Staff’s report, early on the morning of December 27, 2018, Washington residents experienced a major outage affecting wireline telecommunications companies, wireless cellular providers, and Voice over Internet Protocol (VoIP) providers. The outage also affected the state’s E911 system, severely disrupting emergency and public safety communications in Washington. The outage resulted in a loss of access to the state E911 system in all 39 counties across 62 Primary Public Safety Answering Points (PSAP) in Washington. The outage affected a total of 7,427,570 Washington state residents.

The E911 system failed for 49 hours and 32 minutes over a three-day period, with sporadic outages throughout the state until all services were restored at 9:01 p.m. PST on December 29, 2018.

B. Major Outage Notification

Q. Please explain how the Commission defines “major outage.”
A. WAC 480-120-021 defines a major outage as “a service failure lasting for thirty or more minutes that causes the disruption of local exchange or toll services to more
than one thousand customers; total loss of service to a public safety answering point
or emergency response agency; intercompany trunks or toll trunks not meeting
service requirements for four hours or more and affecting service; or an intermodal
link blockage (no dial tone) in excess of five percent for more than one hour in any
switch or remote switch.”

Q: **Was the December 2018 outage a major outage?**
A. Yes. The December 2018 outage was an outage of CenturyLink’s local exchange
services, lasting a total of 49 hours and 32 minutes, and affecting more than 7.4
million residents in the state of Washington. Therefore, this outage meets the
definition of a major outage as set forth in state rule, including WAC 480-120-021.

Q: **Does the occurrence of a major outage create additional obligations on the part
of a telecommunication’s company?**
A: Yes. WAC 480-120-412 requires that, “[w]hen a [telecommunications] company
receives notice of or detects a major outage, it must notify the commission and any
PSAP serving the affected area as soon as possible.”\(^4\). It also requires a company to
notify the county E911 coordinators, the state emergency management authority,\(^5\)
and the public.\(^6\)

\(^4\) WAC 480-120-412(2) (emphasis added).
\(^5\) WAC 480-120-412(3).
\(^6\) WAC 480-120-412(5).
Q: Did CenturyLink contact the PSAPs that it served after detecting the December 2018 outage?

A: No. In CenturyLink’s response to Staff data request, it did not provide any records of such external communications, because the Company claimed it was unaware of any E911 service outages in Washington experienced by any entity to which CenturyLink provided E911 service during the time of the outage.7

Q: Do you have reason to believe that CenturyLink was aware of the December 2018 outage while the outage was still ongoing?

A: Yes. Staff found a post on CenturyLink’s Facebook page that acknowledged some 911 service disruptions affecting various areas throughout the United States.8 However, there was no communication regarding the major outage to any of the PSAPs CenturyLink served once it detected or received notice of the outage.

Q: Based on your investigation, how many PSAPs was CenturyLink required to contact regarding the December 2018 outage?

A: CenturyLink managed, and therefore needed to contact, 15 PSAPs in the state of Washington concerning the December 2018 outage.9

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7 Hawkins-Jones, Exh. JHJ-5 at 1, 3-4.
8 Hawkins-Jones, Exh. JHJ-6.
9 Hawkins-Jones, Exh. JHJ-5 at 3.
C. Washington State Customer Impact

Q. Please describe the December 2018 outage’s impact on CenturyLink’s Washington customers.

A. Staff’s investigation found that all 7.4 million residents of Washington state were potentially impacted by the December 2018 statewide E911 outage. During the December 2018 outage, all Washington residents lost the ability to access E911 in the event of an emergency.

Access to reliable emergency services is absolutely vital to all Washington state residents. The inability to reach emergency services through E911 is a serious and potentially fatal event.

In the case of this particular service outage, CenturyLink was fortunate only in that no major natural or human-caused disasters or incidents occurred during the timeframe of the outage. If such an event had occurred, the lack of functioning E911 services could have been catastrophic.

Actual Washington customers were, in fact, impacted by the December 2018 outage. For example, KIRO 7 News reported that the King County Sheriff’s Office failed to receive an emergency call from an alarm company about a break-in at a SeaTac bank occurring during the December 2018 outage. Staff confirmed the accuracy of KIRO’s reporting with the King County Sheriff’s Officer quoted in KIRO’s article.\(^\text{10}\)

\(^{10}\) Hawkins-Jones, Exh. JHJ-7 at 4.
Another example of the impact the December 2018 outage had on Washington customers occurred in Benton County, where an individual driving in the early morning hours on December 28 hit a patch of ice and rolled his vehicle three times. The individual tried to call 911 multiple times but was unable to connect. Ultimately, the individual had to have a family member contact Washington State Patrol through a non-emergency line. Luckily, he reported only minor injuries.\textsuperscript{11}

Yet another example occurred in Skagit County, where an individual attempted to call 911 after catching a prowler in their yard upon returning home. The individual called 911 multiple times only to receive a busy signal each time. The individual’s significant other chased the prowler away before police arrived.\textsuperscript{12}

These are only a few examples of the harmful impact to Washington state customers caused by CenturyLink’s failure to provide its customers the most important and vital telecommunication service from the perspective of public safety, the ability to dial 911 and have that call routed directly to public safety resources and authorities, as required by WAC 480-120-450(1). Due to the statewide E911 service outage and CenturyLink’s failure, the safety of Washington residents was severely threatened, and loss of life could have occurred.

Q. Has the Commission previously commented on the importance of 911 services to customers in Washington?

\begin{脚注}
\textsuperscript{11} Hawkins-Jones, Exh. JHJ-8.
\textsuperscript{12} Hawkins-Jones, Exh. JHJ-9.
\end{脚注}
A. Yes, the Commission previously commented on the importance of 911 services in several orders.

In Docket UT-132234, regarding a 10-day interruption of long distance and 911 services to residents in San Juan County, the Commission issued Order 03, approving a settlement agreement.\textsuperscript{13} As part of the settlement agreement, the Commission required the parties to file a Washington State Communications Plan and assessed a penalty of $173,210 against CenturyLink, suspending $123,210 on the condition that CenturyLink did not violate WAC 480-120-412 or the provisions of the emergency communications plan for one year from the date that the Commission approved CenturyLink’s communications plans. On June 1, 2017, the Commission issued Order 06, imposing the suspended penalty due to CenturyLink’s failure to follow the communications plan.\textsuperscript{14} The Commission stated:

\begin{quote}
We remain concerned about CenturyLink’s repeated failures to maintain 911 system integrity and provide sufficient notification of major outages. This is the third documented instance in the last four years in which a substantial number of Washington telecommunications customers have been deprived of access to 911 service for a significant period of time. Our citizens rely on this service to report emergencies and immediate need of assistance, and the service’s unavailability has the potential to cause severe harm. At a minimum, we expect the Company to promptly notify the Commission and WMD of major outages so that emergency service providers can inform consumers and take additional steps to mitigate the impact of the outage. CenturyLink should expect the Commission to continue to monitor the Company’s performance closely and take whatever action is necessary to enforce the Company’s 911 obligations.
\end{quote}

The Commission also addressed the importance of E911 services in Docket UT-140597, regarding the 6-hour outage of 911 services in April 2014. In that docket,

\textsuperscript{13} Hawkins-Jones, Exh. JHJ-10, at 19 ¶ 52.
\textsuperscript{14} Hawkins-Jones, Exh. JHJ-11, at 3 ¶ 10.
the Commission issued Order 03, approving a settlement agreement. As part of the settlement agreement, CenturyLink accepted a $2,854,750 penalty. The Commission stated:

\[ \text{[T]he citizens of this state reasonably rely on their ability to access emergency services by dialing 911. Their inability to do so for even a brief period of time poses a serious threat to public health, safety, and welfare, not just a violation of statute and Commission rule} \]

In Docket UT-170042, regarding a CenturyLink acquisition, the Commission issued Order 03, approving a settlement agreement. As part of that settlement agreement, the Commission stated that the uninterrupted provision of 911 service in Washington is of vital importance and that Washington has experienced first-hand some of the harm that results from even the temporary unavailability of that service.

D. Estimated Number of Failed E911 Calls And Revised Penalty Recommendation

Q. What is the total number of failed E911 calls during the December 2018 outage?

A. Staff made several attempts to obtain information about the number of failed 911 calls from CenturyLink, however, the Company was evasive in its responses and Staff was ultimately forced to utilize other methods to determine the number of emergency calls in Washington state placed to 911 that went unanswered.

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15 Hawkins-Jones, Exh. JHJ-12, at 11 ¶¶ 41-42.
16 Hawkins-Jones, Exh. JHJ-13, at 15 ¶ 58.
17 See also, Exh. JHJ-14 at 10-11 ¶ 25 (“The Commission thus requires the Company to take all reasonable steps to reduce the foreseeable risks of a 911 outage and to deploy systems that will limit, detect, and immediately remedy whatever service interruptions occur.”).
WMD ultimately provided Staff the approximate number of E911 calls transmitted over the E911 Network from January 2020 through October 2020. Staff used this E911 call data and averaged the number of calls per 24-hour period, which was approximately 12,000 completed E911 calls. Because the E911 system failed for 49 hours and 32 minutes, Staff initially estimated that approximately 24,000 E911 calls were affected by the December 2018 outage (using the average data provided by WMD).

Based on the call estimate data, Staff originally recommended a potential penalty of up to $7,215,000.

Staff obtained additional data after retaining expert telecommunications consultants to help with this matter. Staff’s consultants requested the data concerning the number of E911 calls by hour band, whether the call was deemed successful or not, and whether the call was destined for a PSAP managed by CenturyLink or TSYS. CenturyLink provided that data, and it shows that that during the 49 hour and 32-minute outage, [redacted] that were destined for TSYS-served PSAPs had failed. The data also showed an additional [redacted] destined for CenturyLink PSAPs had failed. This is a total of [redacted] calls during the December 2018 outage.

Q. Based on the revised call impact estimate and CenturyLink’s failure to notify the Commission of the outage, discussed above, does Staff have a revised penalty recommendation?
A. Yes. With this new information, Staff now recommends the Commission find that CenturyLink committed violations of the public service laws and the Commission’s rules and assess a penalty up to. The elements of the penalty recommendation are as follows:

Q. Please explain the basis for Staff’s penalty calculation.

A. Staff typically recommends a “per violation” penalty against a regulated company where the violations result in serious consumer harm, for repeat violations of a rule after the company receives technical assistance, or for intentional violations of Commission laws or rules.
Q. Has the Commission listed the factors it analyzes when considering the appropriate penalty for violations of the public service laws or its rules?

A. Yes. The Commission announced its enforcement policy through a policy statement issued in Docket A-120061.

Q. Are you familiar with that policy statement and the enforcement factors listed in it?

A. Yes.

Q. What factors does the Commission consider for purposes of setting an appropriate penalty?

A. The Commission considers:

- How serious or harmful the violation is to the public.
- Whether the violation is intentional.
- Whether the company self-reported the violation.
- Whether the company was cooperative and responsive.
- Whether the company promptly corrected the violations and remedied the impacts.
- The number of violations and the number of customers affected.
- The likelihood of recurrence.
- The company’s past performance regarding compliance, violations, and penalties.
• The company’s existing compliance program.

• The size of the company.

Q. **How serious or harmful were these violations?**

A. As noted by Staff witness Mr. Webber, E911 services are a critical link in
Washington’s public health and safety systems: Washingtonians call 911 to obtain
emergency help, whether law enforcement, fire suppression, or medical services.20
The inability to reach emergency services through E911 is a serious and potentially
fatal event. The risk of death and property loss here was mitigated only by the fact
that no major natural or human-caused disasters or incidents occurred during the
outage.

Q. **Were these violations intentional?**

A. Staff does not believe that any of the violations were intentional. All, however, were
very foreseeable and that should weigh against CenturyLink when setting the
appropriate penalty. As Mr. Webber discusses, 21

And, as discussed above, CenturyLink’s 911 services failed repeatedly in recent
years. Given that, CenturyLink should have been prepared to communicate with the
Commission, but apparently had no procedures in place to do so.
Q. Did CenturyLink self-report the violations?
A. Certainly not during the outage. Even at its end, CenturyLink still claimed that it had not suffered a reportable 911 outage.

Q. Did CenturyLink cooperate with Staff’s investigation?
A. In some ways. But CenturyLink refused to provide the number of failed calls, and Staff had to try to reconstruct what had happened from third party sources until Staff’s consultants helped piece together discovery requests that produced the information used to calculate the number of failed calls.

Q. Has CenturyLink corrected the violations and remedied the impacts?
A. CenturyLink worked with its vendors to secure its network, which should prevent any similar network failures.

Q. How many customers did these violations affect?
A. Every Washingtonian was affected by the loss of E911 services. Washingtonians made [redacted] 911 calls that failed during the outage.

Q. What is the likelihood of another outage?
A. Hopefully the likelihood of this particular type of outage is low because CenturyLink has taken steps to prevent the type of packet storm that crippled its network in December 2018.
Q. How does Staff view CenturyLink’s past performance with regard to compliance, violations, and penalties?

A. CenturyLink’s recent performance leaves something to be desired. In 2013, CenturyLink’s customers in San Juan County lost 911 services for 10 days. In 2015, the Commission approved a settlement imposing a $173,210 penalty on CenturyLink for violations arising that outage. The Commission suspended $123,210 of that penalty, but ultimately imposed the suspended amount because CenturyLink failed to follow all of the terms of the settlement agreement, specifically the communication plan, with regard to another major outage occurring in 2016.

In 2014, CenturyLink’s customers in Klickitat and Skamania Counties experienced a two-day outage that affected approximately 100,000 customers. CenturyLink failed to properly notify the Commission of the outage. It agreed to pay $2,854,750 in penalties for violations arising from that outage.

The Commission has thus repeatedly, significantly, and increasingly penalized CenturyLink for violations arising from 911 outages over the last decade.

Q. Does CenturyLink have a compliance program?

A. Staff does not know of any.

Q. Does Staff view CenturyLink as a large company?

Q. Based on your analysis, what factors were most significant to your revised penalty recommendation?

A. Staff based its penalty recommendation largely on two factors: first, the seriousness of the violations and their potential harm, and second, the fact that CenturyLink failed to take steps to prevent readily foreseeable violations.

Q. Why did Staff focus on those factors?

A. Staff focused on these factors because the mission of the Commission is to protect the people of Washington by ensuring regulated companies, such as CenturyLink, provide services that are safe, available, reliable and fairly priced. How can the Commission fulfill its mission if CenturyLink cannot provide reliable E911 services to the people of Washington? This outage was preventable [REDACTED]

Q. Does Staff’s investigation report set forth a more complete penalty analysis?

A. Yes. The Commissioners may review it if they have any questions about Staff’s analysis of the appropriate penalty.
E. Follow-up PSAP Communication

Q. Did Staff perform any follow up communication with the PSAPs CenturyLink still managed during the December 2018 outage?

A. Yes. Staff reached out to seven of the 15 PSAPs CenturyLink identified it managed during the December 2018 outage. Staff provided each PSAP with an identical list of questions. To date, Staff received responses from five of the PSAPs. Staff is still waiting on a response from one PSAP and one PSAP is unable to provide responses presently due to staffing issues.

In the five responses that Staff received, four PSAPs (ValleyCOM, NORCOM, South Sound 911 – Puyallup, and Colville Tribal Police) experienced a disruption during the outage timeframe. Types of service disruptions included:

- Unable to call other PSAPs managed by CenturyLink
- Fast busy signal when trying to call 911 during outage times
- Unable to transfer 911 calls to other PSAPs managed by CenturyLink
- Unable to return calls to some 911 customer hang-ups or receive all 911 texts
- Unable to make long distance calls – including calls to CenturyLink E911 repair.

Colville Tribal Police Department stated its calls are relayed through the counties and because of the outage the PSAP had to distribute cell phones to dispatchers to receive those emergency calls.

Additionally, the same four PSAPs did not receive any outage notification from CenturyLink, as required by WAC 480-120-412(2). One PSAP (ValleyCOM) stated that the only notification shared from CenturyLink was through “trouble tickets” and the information that was shared was very limited.

The one remaining PSAP (Spokane Regional Emergency Communications) stated it was not impacted by the outage. However, the PSAP could only provide a Facebook posting from December 2018 that confirmed the PSAP was not affected because it no longer had access to its previous internal system.\(^{24}\)

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

A. Yes.