

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. CENTURYLINK COMMUNICATIONS, LLC, Respondent.	DOCKET UT-181051 FINAL ORDER 08 GRANTING MOTION TO STRIKE; IMPOSING PENALTIES
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BACKGROUND

¹ **COMPLAINT.** On December 22, 2020, the Washington Utilities and Transportation Commission (Commission), on its own motion and through its regulatory staff (Staff),¹ issued a complaint against CenturyLink Communications, LLC, (CenturyLink or Company) in the above-referenced Docket for alleged violations of state law and Commission rules (Complaint).

² On December 27, 2018, Washington residents experienced interruptions in telecommunications service, including enhanced 911 service (E911 or 911 service). Residents attempting to call 911 encountered a fast busy signal and experienced dropped calls. The service interruption affected all Washington residents and all 62 public safety answering points (PSAPs) intermittently for 49 hours and 32 minutes over a three-day period, with a complete outage from 12:40 a.m. PST on December 27 until 8:36 p.m. PST on December 28, 2018. Sporadic outages throughout the state continued until all services were restored at 9:01 p.m. PST on December 29, 2018.² The outage was a “major outage” as defined in Washington Administrative Code (WAC) 480-120-021.³

¹ In formal proceedings such as this, the Commission’s regulatory staff participates like any other party, while the Commissioners make the decision. To assure fairness, the Commissioners, the presiding administrative law judge, and the Commissioners’ policy and accounting advisors do not discuss the merits of this proceeding with regulatory staff, or any other party, without giving notice and opportunity for all parties to participate. See RCW 34.05.455.

² Commission Staff Investigation Report, p. 3.

³ WAC 480-120-021 defines “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

3 The Washington State Military Department Enhanced 911 Coordination Office (WMD), contracts for all Washington state 911 services.⁴ WMD originally contracted with CenturyLink in 2009 for the provision and maintenance of a statewide Emergency Services Internet Protocol 911 Network (ESInet I) (Contract).⁵ The ESInet I was a telecommunications network over which 911 calls were received and routed from originating service providers to PSAPs.⁶

4 In 2016, WMD solicited proposals and awarded a contract to a new provider, TeleCommunications Systems, Inc., d/b/a Comtech TeleCommunications Corp. (Comtech), for a next generation statewide Emergency Services Internet Protocol 911 Network (ESInet II).⁷ At the time of the outage, CenturyLink was engaged in the first phase of a three-phase process to transition 911 service to Comtech, and it still provided service to 15 of the 62 Washington PSAPs. The first phase of the transition project involved migrating Washington PSAPs from CenturyLink's ESInet I network to Comtech's ESInet II network.⁸ CenturyLink and Comtech were both contracted to provide 911 services during the transition period.⁹

5 During the first phase of the transition, Comtech continued to rely on CenturyLink for transport and automatic location identification services related to all 911 calls.¹⁰ To provide this service, CenturyLink utilized its "Green Network."¹¹ The Green Network has

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."

⁴ Pursuant to RCW 38.52.520, WMD is authorized to coordinate and facilitate the implementation and operation of enhanced 911 emergency communications systems throughout the state on the behalf of the counties and their Public Safety Answering Points. It also procures and administers the contract for the State's Emergency Services IP network (ESInet).

⁵ Webber, Exh. JDW-38C, WMD Contract E09-196 and Amendments J, K, L, and M.

⁶ Amended Washington State Military Department's Post-Hearing Brief, at ¶ 2.

⁷ *Id.* at ¶ 3.

⁸ Complaint, at ¶ 8.

⁹ Amendments to the contract between CenturyLink and WMD were required to effectuate this transition. *See* Webber, Exh. JDW-38C (WMD Contract E09-196 and Amendments J, K, L, and M).

¹⁰ *Id.* at ¶ 9.

¹¹ Exh. RA-1CT, at pg. 9.

interstate connections, which resulted in the December 2018 outage affecting multiple states.¹²

6 The December 2018 outage was caused by four malformed packets of data that were created in a node supplied by Infinera Intelligent Transport Networks (Infinera), CenturyLink’s vendor.¹³ Additionally, CenturyLink did not configure Infinera’s nodes to disable a proprietary internodal management channel, which allowed the malformed packets to be sent repeatedly to all other connected CenturyLink nodes, causing a steady, continual drain on CenturyLink’s network processing resources. This event, described as a “packet storm,” resulted in a prolonged service interruption.¹⁴ As noted above, the E911 system failed for 49 hours and 32 minutes over a three-day period.¹⁵

7 CenturyLink’s service outage also disrupted services provided to the 47 PSAPs served by Comtech because Comtech depended on CenturyLink’s network to provide service to PSAPs. CenturyLink failed to notify the Commission and the 15 PSAPs still receiving CenturyLink service of the outage.¹⁶ Based on Washington 911 call data during the December 2018 outage, more than 13,000 calls (approximately one half of all calls) sent to Comtech PSAPs failed.¹⁷

8 Staff’s investigation concluded that the statewide E911 network outage was caused by CenturyLink’s failure to configure the channel module to prevent inaccurate traffic routing or packet flooding.¹⁸ Staff states that the statewide outage would have been shorter in duration had CenturyLink put those safeguards in place.¹⁹

9 In the Complaint, Staff alleges that CenturyLink’s conduct related to the outage violated Revised Code of Washington (RCW) 80.30.080, RCW 80.36.220, WAC 480-120-450(2), and WAC 480-120-412.

10 **PROCEDURAL HISTORY.** On January 29, 2021, WMD filed a petition to intervene and on February 2, 2021, filed an amended petition stating its interest, as the

¹² *Id.*

¹³ Staff Investigation Report, p. 3

¹⁴ *Id.* at ¶ 10-11.

¹⁵ Staff Investigation Report, p. 3

¹⁶ *Id.* at ¶ 13-14.

¹⁷ Webber, JDW-1CT at 44, Table 1.

¹⁸ Staff Investigation Report, p. 16.

¹⁹ *Id.*

administrator of the contracts for 911 services, in the information relating to 911 services and the facts surrounding the December 2018 outage.²⁰

- 11 The Commission convened a prehearing conference on February 9, 2021, and on February 24, 2021, entered Orders 01 and 02, Prehearing Conference Order; Notice of Hearing (Order 01) and Protective Order (order 02).²¹ Order 01, among other things, granted WMD's petition to intervene. On August 27, 2021, the Commission issued a notice revising the procedural schedule.²²
- 12 On July 20, 2021, Comtech filed a petition to intervene. Comtech argued that as one of the 911 service providers during the December 2018 outage, it had a significant interest in, and information relating to, the outage.²³
- 13 On August 9, 2021, the Commission entered Order 03, Granting Petition to Intervene.
- 14 Pursuant to the procedural schedule, the Public Counsel Unit of the Washington Attorney General's Office (Public Counsel) and other parties filed initial testimony on December 15, 2021.
- 15 On March 31, 2022, CenturyLink filed Response Testimony, the day after response testimony and exhibits were due.
- 16 On August 31, 2022, Public Counsel and Staff submitted cross-answering testimony.
- 17 On October 14, 2022, CenturyLink filed a Motion to Compel, requesting that the Commission order Staff to provide responses to data requests related to the testimony of Staff expert witnesses James Webber and Dr. Robert Akl. On October 21, 2022, Staff filed its Response to Motion to Compel arguing that CenturyLink's data requests had been responded to, or they required the creation of new data or documents without showing a compelling need for the information.
- 18 On October 28, 2022, Public Counsel filed a Motion for Partial Summary Determination arguing that the cause of the outage is undisputed.²⁴ Public Counsel further argued that the contractual obligation during the transition from CenturyLink to Comtech

²⁰ WMD Petition to Intervene, p. 2.

²¹ Errors in Order 01 were corrected by a Notice of Erratum issued on February 25, 2021.

²² Errors in the Notice were corrected by a Notice of Erratum issued on September 3, 2021.

²³ Comtech Petition to Intervene, p. 2.

²⁴ This Order effectively resolves all issues in the Motion for Summary Partial Summary Determination.

demonstrated the Company's responsibility when CenturyLink's national optical network failure disrupted the routing of 911 calls from CenturyLink to Comtech.²⁵

19 On November 17, 2022, WMD and Staff filed responses supporting the Motion for Partial Summary Determination.

20 On November 17, 2022, CenturyLink filed an Opposition to Motion for Partial Summary Determination arguing that there were disputes of material fact related to the reasonable diligence of both CenturyLink's and Comtech's actions leading up to the outage.

21 Charles Steese, Armstrong Teasdale LLP, Denver, Colorado and Adam Sherr, Lumen Technology Inc., Seattle, Washington, represent CenturyLink. Lisa Gafken, Nina Suetake, and John Nelson, Assistant Attorneys General, Seattle, Washington, represent Public Counsel. Dawn Cortez, Assistant Attorney General, Olympia, Washington, represents WMD. Susan Goldhar Ornstein, Senior Director, Legal & Regulatory Affairs, Seattle, Washington, represents Comtech. William McGinty, Assistant Attorney General, Tumwater, Washington, represents Staff.

22 **HEARING.** An evidentiary hearing was convened virtually December 5-6, 2022, before Chair David Danner, Commissioner Ann Rendahl, Commissioner Milt Doumit, Administrative Law Judge Gregory Kopta, and Administrative Law Judge Samantha Doyle.

23 Staff presented testimony and evidence from Deputy Assistant Director Jacque Hawkins-Jones and expert witnesses James Webber and Dr. Robert Akl. Public Counsel presented testimony and evidence from expert witnesses Stephanie Chase and Brian Rosen. CenturyLink presented testimony and evidence from expert witnesses Jeanne Stockman, Steven Turner, Carl Klein, and Thomas McNealy. All pre-filed testimony and exhibits were admitted into the record except for several proposed cross-examination exhibits.²⁶ Most witness testimony was given in confidential session.

24 *Commission Staff.* Staff witness Jacque Hawkins-Jones explained Staff's investigation process, her role in the investigation, and CenturyLink's involvement in, and responsibility for, the December 2018 outage.²⁷

²⁵ Public Counsel's Motion for Summary Partial Summary Determination at ¶ 8-12.

²⁶ The following proposed cross-examination exhibits for witness Brian Rosen were not admitted into the record: BR-34X, BR-35X, BR-36X, BR-67X, BR-79X, BR-80X, BR-82X, BR-83X, and BR-86X.

²⁷ Hawkins-Jones, TR 87:1-19

- 25 Staff's expert witness James Webber explained the importance of physical, geographic, and route diversity.²⁸ During cross examination, Webber confirmed that a year after the outage in this case, the Federal Communications Commission (FCC) recommended provider diversity to avoid outages caused by a single point of failure.²⁹ Webber clarified that a network and a single point were not the same. Webber explained that in the instance of the Green Network failure, multiple nodes failed simultaneously, traversing thousands of miles to take down the entire network, contributing to the outage at issue in this proceeding.³⁰
- 26 Webber additionally stated that it was uncertain whether provider diversity to Comtech's signaling links would have resulted in completed calls during the December 2018 outage, because Transaction Network Services (TNS) was also providing connection services and was impacted by the outage.³¹
- 27 Finally, Staff's expert witness Dr. Robert Akl spoke to the importance of link diversity to prevent a single point of failure for enhanced 911 service networks.³² Dr. Akl clarified that his testimony focused on the causes of CenturyLink's December 2018 Green Network outage and compared it with a previous outage on another of CenturyLink's networks.³³
- 28 *Public Counsel.* Public Counsel's witness, Regulatory Analyst Stephanie Chase, testified that Commission enforcement action criteria includes foreseeability and confirmed that her pre-filed testimony includes CenturyLink's 911 outage history in Washington.³⁴ Chase stated that Public Counsel's position was that CenturyLink's obligations related to the Company's role as an interexchange carrier (911 service provider).³⁵
- 29 Public Counsel's expert witness Brian Rosen's testimony was provided confidentially.
- 30 *CenturyLink.* CenturyLink expert witness Steven Turner confirmed that because suppliers often utilize the same networks, buying links from two providers is not enough to ensure

²⁸ Webber, TR 125:2-9.

²⁹ *Id.* at 126:8-19.

³⁰ *Id.*

³¹ *Id.* at 145:11-23.

³² Akl, TR 213:5-23.

³³ *Id.* at 218:22-25.

³⁴ Chase, TR 259:3-21.

³⁵ *Id.* at 268:16-21.

route diversity.³⁶ According to Turner, contracting companies must request a design layout record to ensure that proper diverse arrangements will be made.³⁷

31 Company witness Carl Klein made a ministerial correction to his initial testimony and primarily testified in confidential session.³⁸ CenturyLink's witness Thomas McNealy also testified in confidential session.³⁹

32 **POST-HEARING BRIEFS AND MOTION.** On January 17, 2023, post-hearing briefs were filed by CenturyLink, Public Counsel, Staff, and WMD. WMD filed an amended post-hearing brief on January 18, 2023.

33 On January 30, 2023, Public Counsel filed a Motion to Strike Attachment 1 and Portions of the Opening Brief of CenturyLink (Motion to Strike). On February 2, 2023, Public Counsel filed an amended Motion to Strike. Public Counsel argues that CenturyLink's inclusion and reference to an article in an online publication written by Public Counsel's expert witness Brian Rosen was improperly added after the close of the record, in violation of WAC 480-07-830(1).

34 On February 6, 2023, CenturyLink filed an Opposition to Public Counsel's Motion to Strike. CenturyLink argues that use of the article is not the introduction of new evidence, but a reference to persuasive authority consistent with WAC 480-07-390, WAC 480-07-395, and Commission precedent.

35 On February 10, 2023, CenturyLink and Staff filed reply briefs. On February 13, 2023, Public Counsel submitted a reply brief.

36 **PARTIES' POSITIONS.** It is undisputed that the originating events of the December 2018 outage occurred on CenturyLink's Green Network when a packet storm disrupted service.⁴⁰ The Company was still under contract with WMD to provide 911 services for the remaining 15 PSAPs not yet transitioned to the new service provider, Comtech, and had long been in negotiations to transition and create a network design for Comtech.⁴¹

³⁶ Turner, TR 361-362:1-20.

³⁷ *Id.* 362-363:1-6.

³⁸ Klein, TR 416:20-25; 417:3-5.

³⁹ McNealy, TR 456:20-25.

⁴⁰ Rosen, Exh. BR-1CTr at 6:8-14 (citing FCC Report at 6-8).

⁴¹ Webber, Exh. JDW-74X 1-92, Comtech Contract with WMD.

The parties' positions on the contested issues – jurisdiction, CenturyLink's contract with WMD, the demarcation point, and system design – are summarized below.

37 *Jurisdiction.* CenturyLink argues that because its Green Network is an interstate network, the Commission lacks jurisdiction over failures arising from that incident.⁴²

38 Staff contends that CenturyLink's argument ignores the Company's agreement with WMD to provide intrastate services to Washington's 911 system.⁴³ Staff argues that the FCC's end-to-end analysis, which disregards the signaling network used to connect voice trunks and determines jurisdiction after the call signaling process occurs, applies here.⁴⁴

39 Public Counsel argues that the Commission has jurisdiction over CenturyLink as Washington's 911 service provider, and therefore must ensure CenturyLink meets its responsibility to maintain the 911 network. Public Counsel argues that the Company's alleged failure to meet its obligations for the 911 network is properly before the Commission.

40 *WMD Contract.* CenturyLink argues that Public Counsel's argument focuses on a breach of contract between CenturyLink and WMD, and that the Commission does not have authority to hear breach of contract claims.⁴⁵ Even assuming the Commission had jurisdiction over contract claims, CenturyLink argues that the other parties misinterpret the application of the contract between the Company and WMD, and ignore the impacts of Comtech's contractual obligations to WMD.⁴⁶

41 Specifically, the contract contains an Amendment M, which was added to the contract during the transition to Comtech. The amendment provides:

11. AMENDMENT TERMS AND CONDITIONS:

1. The existing contract is modified to add the following language to the Transition Services:

⁴² CenturyLink Opening Brief at ¶¶ 87–90.

⁴³ Rosen, Exh. BR-4C at 15 (“This solution must include, but is not limited to, network, transport, PSAP interfaces, 911 trunk support, selective routing and ALI interfaces.”).

⁴⁴ Staff Reply Brief at ¶ 10, citing *In re Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22412, ¶ 16 (2004), and *In the Matter of Connect America Fund et al.*, 26 FCC Rcd. 17663, 17893 n. 1206 (November 18, 2011).

⁴⁵ CenturyLink Reply Brief at ¶ 48.

⁴⁶ *Id.* at ¶ 49-58.

a) Covered 911 Service Provider during PSAP Migration. The Department is transitioning the ESInet services to a successor provider via a phased cutover of PSAPs from Contractor's ESInet I to New Contractor's ESInet II ("PSAP Migration"). Prior to this cutover, Contractor shall route calls over ESInet I to the appropriate PSAPs and, as such, during this time, Contractor is a Covered 911 Service Provider as defined in 47 C.F.R. § 12.4(a)(i)(A) ("Covered 911 Service Provider") for all PSAPs in the State. Upon the Department's cut over of one or more PSAPs to ESInet II ("Migrated PSAPs"), the Department's successor provider shall be a Covered 911 Service Provider for such Migrated PSAPs and shall be solely responsible for routing calls from the Demarcation Point between ESInet I and ESInet II to such Migrated PSAPs. During the PSAP Migration, Contractor remains responsible for routing calls to PSAPs that have not migrated to ESInet II ("Unmigrated PSAPs"), and for routing calls intended for Migrated PSAPs to the Demarcation Point at ESInet II, at which point the successor provider assumes responsibility for delivering such calls to Migrated PSAPs and is therefore the Covered 911 Service Provider.⁴⁷

42 CenturyLink argues that the amendment makes Comtech the Covered Service Provider for the PSAPs that have transitioned and makes Comtech responsible for the transport of all calls from the demarcation point.⁴⁸

43 Public Counsel argues that the original 2009 contract between CenturyLink and WMD is relevant because it created the Company's 911 service obligations. Public Counsel further contends that Amendment M only defines CenturyLink's role during the transition.⁴⁹ Public Counsel argues that Amendment M did not relieve CenturyLink of its obligation to provide 911 service to the remaining PSAPs in the Company's control during the transition period.⁵⁰

44 WMD also argues that the original 2009 contract and Amendment M language is relevant here.⁵¹ Like Public Counsel, WMD argues that the 2009 contract is the basis for CenturyLink's obligations as a covered 911 service provider.⁵² WMD additionally points

⁴⁷Stockman, Exh. SJH-9C, E09-196 and E09-196M, Amendment M.

⁴⁸ CenturyLink Reply Brief at ¶ 54.

⁴⁹ Public Counsel Post-Hearing Brief, at ¶ 14-20. "Services included, 'network, transport, PSAP interfaces, 911 trunk support, selective routing and ALI interfaces.'"

⁵⁰ *Id.* at ¶ 19.

⁵¹ Amended WMD Post-Hearing Brief at ¶ 1-7.

⁵² *Id.* at ¶ 2.

to Amendment J, which outlines the transition plan between CenturyLink and Comtech. Amendment J provides:

11. AMENDMENT TERMS AND CONDITIONS:

2. A new Section is hereby added to the contract titled Transition Services to the Statement of the Work as Section 6 of the “Contractor Agrees to” Section, as follows:

a) Upon written notification from the Department to Contractor (in accordance with the terms of the contract) that the Department will be transitioning the ESINet services to a successor provider, Contractor shall provide to the Department all services, information and data reasonably necessary to effectuate an orderly and seamless transition to such successor provider and to ensure that there is no interruption of 9-1-1 service in the State of Washington, including:

i. Providing assistance in transferring all ESINet data files in an industry standard format designated by the Department: and

ii. Meeting with any successor provider, either in person or by telephone, as requested by the Department to discuss transitioning the ESINet services, cutover planning, data transfers, and the like; and

iii. Providing all data formats, data definition file layouts and schematics, functional and technical specifications, including requirement specification, platform specification, functions specification, interface control document, data dictionary, test plan, and user manuals and interface source codes for the ESINet as may be necessary in the Department’s reasonable determination to transfer the ESINet services to the successor provider; and

iv. Providing such other materials and information as may be needed or required to reasonably effectuate a successor provider.⁵³

45 WMD emphasizes that CenturyLink agreed to “...effectuate an orderly and seamless transition to such successor provider and to ensure that there is no interruption of 9-1-1 [sic] service in the State of Washington.”⁵⁴ WMD argues that neither Amendment J nor Amendment M relieved CenturyLink of its obligation as a 911 service provider.⁵⁵

⁵³ Amended WMD Post-Hearing Brief at ¶ 4. Citing Exh. JDW-38C at 18, ¶ 11(1)(a).

⁵⁴ *Id.*

⁵⁵ *Id.* at ¶ 7.

- 46 *Demarcation Point.* CenturyLink argues that there was not only a clear demarcation point, but that 911 call failures during the December 2018 outage were on Comtech’s side of the demarcation point.⁵⁶ While the Company concedes that Amendment M does not specify the physical location of the demarcation point, it does state: “(u)pon the Department’s cut over of one or more PSAPs to ESInet II (‘Migrated PSAPs’), the Department’s successor provider [Comtech] shall be a Covered 911 Service Provider for such Migrated PSAPs and shall be solely responsible for routing calls from the Demarcation Point between ESInet I and ESInet II to such Migrated PSAPs.”⁵⁷ CenturyLink claims that the signaling network demarcation point was located at the point where the Intrado/TNS signaling transfer point (STP) sent an initial address message (IAM) to Comtech.⁵⁸ CenturyLink argues that this point is determined as a matter of industry parlance made obvious “as a matter of party expectations, as well as simple logic.”⁵⁹
- 47 Public Counsel argues that with no clear location of the demarcation point in Amendment M, CenturyLink cannot unilaterally decide its location.⁶⁰ Public Counsel claims that without an agreement within the contract, there was no transition of responsibility, but a shared responsibility to fully deliver 911 calls.⁶¹
- 48 Staff argues that because the system had transition points between more than just CenturyLink and Comtech, there would be two more demarcation points where the Intrado STP and TNS networks connect.⁶² Applying CenturyLink’s explanation, this would mean there are three demarcation points, which, Staff argues, would be inconsistent with the contract language that provides for a singular demarcation point.⁶³ Staff agrees with Comtech and WMD’s description of the demarcation point location, arguing that it is both consistent with the contract language requiring a singular location and within an area for which CenturyLink is responsible.⁶⁴

⁵⁶ CenturyLink Post-Hearing Brief at ¶ 33-34.

⁵⁷ *Id.* at ¶ 32. *See*, Ex. SJH-9C, at 1.

⁵⁸ Klein, Exh. CDK-3, Figure 1: Simplified Phase 1 Call Flow.

⁵⁹ CenturyLink Post-Hearing Brief, at ¶ 34. *See*, Exh. SET-1TC at 40:1-2.

⁶⁰ Public Counsel Reply Brief at ¶ 12.

⁶¹ *Id.* at ¶ 11. *See*, Exh. BR-30CT at 22:5–8.

⁶² Staff Reply Brief at ¶ 13.

⁶³ *Id.*

⁶⁴ *Id.* at ¶ 14. *See*, Exh. BR-4C at 19 and 29.

- 49 WMD agrees that the transition plan outlined in Amendment M did not describe or define the demarcation point.⁶⁵ WMD agrees with Comtech that the demarcation point is where Comtech's equipment received the calls.⁶⁶ They contend that calls were failing before the demarcation point and within CenturyLink's responsibility.
- 50 *System Design.* CenturyLink argues that it was Comtech's responsibility to design and properly diversify its network.⁶⁷ CenturyLink points to Comtech's contract with WMD, which contains a service level agreement requiring Comtech to avoid single points of failure and provide redundancy.⁶⁸ CenturyLink further argues that Comtech failed to properly diversify its circuits, unlike CenturyLink, which provisioned its SS7 circuits with network and supplier diversity.⁶⁹ As evidence of Comtech's failure, CenturyLink argues that even though both CenturyLink and Comtech used the Green Network, calls to CenturyLink's PSAPs were completed while thousands of 911 calls to Comtech's PSAPs failed.⁷⁰
- 51 Public Counsel alternatively argues that CenturyLink retains responsibility for Comtech's ESInet II design. Public Counsel asserts that by refusing to use an IP-based interconnect and proposing the use of outdated SS7 technology, CenturyLink subjected the connection to the failures of the older technology and increased the complexity of the system.⁷¹ Additionally, Public Counsel argues that CenturyLink refused to directly connect to Comtech, instead requiring a third-party interconnection, which increased the complexity (and decreased the reliability) of the system.⁷²
- 52 Staff focuses on CenturyLink's design of the Green Network and argues that while the specific packet storm may not have been foreseeable, CenturyLink failed to plan for unexpected traffic.⁷³ Staff argues that CenturyLink's decision to leave certain channels

⁶⁵ WMD Brief at ¶ 10.

⁶⁶ *Id. See*, Exh. BR-30CT 21:17-18; Exh. BR-1CT 29:8-14 – 30:1-3; Exh. BR-28 at 2, WMD Supplemental Response to Public Counsel Data Request No. 6.

⁶⁷ CenturyLink Reply Brief at ¶ 56-57.

⁶⁸ *Id. See*, Exh. JDW-74X at 58-59 (SLA 6.4)

⁶⁹ CenturyLink Post-Hearing Brief at ¶ 2.

⁷⁰ *Id.*

⁷¹ Public Counsel Post-Hearing Brief at ¶ 29.

⁷² *Id. See*, Exh. BR-17 at 1 and Exh. BR-30CT at 3:1-11.

⁷³ Staff Reply Brief at ¶ 16-17. *See*, Akl TR 254:2-254:13.

enabled on the Green Network left it vulnerable to the type of component failure that occurred during the December 2018 outage.⁷⁴

53 WMD argues that CenturyLink’s responsibility in Comtech’s ESInet II design arose from the Amendment J language requiring CenturyLink to provide “all services, information, and data reasonably necessary to effectuate an orderly and seamless transition to such successor provider and to ensure that there is no interruption of 9-1-1 [sic] service in the State of Washington.”⁷⁵ WMD also observes that CenturyLink was responsible for provisioning some of the circuits used in the transition.⁷⁶

DISCUSSION

54 The Commission continues to recognize that “[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 rules.”⁷⁷ Accordingly, the service disruption lasting 49 hours and 32 minutes in December 2018 was a serious health and safety threat to Washington state residents. We find that CenturyLink failed both in its obligations under statutory provisions and Commission rules to adequately manage and provide 911 service. We address the Motion to Strike and each violation in turn, below.

55 **MOTION TO STRIKE.** We grant Public Counsel’s Motion to Strike for the following reasons.

56 Pursuant to WAC 480-07-830(1), the record closed in this case on December 6, 2022, the last day of the Commission’s evidentiary hearing. On January 17, 2023, CenturyLink filed its Opening Post-Hearing Brief, in which it quoted from and to which it attached as Appendix 1 an article purportedly written by Public Counsel witness Brian Rosen, dated September 2, 2019, and entitled, “Analysis of CenturyLink Dec 2018 outage: Transport Operator/Supplier Diversity is Critical.” The Company did not offer this article as an exhibit during the hearing, did not question Mr. Rosen about it, and did not file a motion pursuant to WAC 480-07-830(2) to reopen the record. CenturyLink’s brief also provided a link to a December 28, 2018, article on Geekwire.com entitled “Washington 911 outage hits Washington as emergency alerts sent to smartphones.” Again, the Company did not

⁷⁴ Webber, Exh. JDW-4 at 15.

⁷⁵ Webber, Exh. JDW-38C at 18, ¶ 11(1)(a).

⁷⁶ Webber, Exh. JDW-1CT 38:15-17; *see also*, Exh. BR-30CT 21:19-20.

⁷⁷ *WUTC v. CenturyLink*, Docket UT-140597, Order 03, Final Order Approving Settlement Agreement ¶ 9 (Feb. 22, 2016) (UT-140597 Order 03).

offer this article as an exhibit during the hearing, did not provide opportunity for cross-examination, and did not file a motion to reopen the record.

57 Public Counsel’s Motion to Strike argues that CenturyLink’s inclusion and reference to the articles in its post-hearing brief was “untimely and unduly prejudicial to parties.” It noted that CenturyLink “could have timely included both documents in the record as cross-examination exhibits at the evidentiary hearing but declined to do so. As a result, CenturyLink failed to lay the proper foundation for either article and parties have not had an opportunity to respond to the evidence. CenturyLink’s untimely introduction of this evidence also deprives parties the ability to cross-examine the Company’s witnesses on the material.”⁷⁸

58 On February 6, 2023, CenturyLink filed an Opposition to Public Counsel’s Motion to Strike. CenturyLink argues that use of the article is not the introduction of new evidence, but merely a reference to persuasive authority consistent with WAC 480-07-390, WAC 480-07-395, and Commission precedent. The Company says:

CLC never claimed that either article should be considered part of the evidentiary record in this proceeding; it did not request their admission, and CLC did not request that either article be treated as admissible factual evidence. Rather, the articles were referenced and attached as persuasive authority and were identified in CLC’s Table of Authorities in its Opening Post Hearing Brief. Like any technical journal, the Rosen article was attached as persuasive authority to show how experts in the industry evaluate the true cause of 911 outages. It also undermines Public Counsel’s advocacy in this litigation which strongly diverts from Mr. Rosen’s conclusions as articulated in the appended article. The Geekwire article was referenced, just like any newspaper article can be. The Commission’s rules, Commission precedent, and longstanding practice recognize the difference between support for arguments in a brief and the evidentiary record in a proceeding. These differences require the Commission to deny Public Counsel’s Motion.⁷⁹

59 Pursuant to WAC 480-07-390, the Commission may require parties to present their arguments and authority in support of their positions after the conclusion of any evidentiary hearing. Additionally, WAC 480-07-395(1)(c)(vi) requires a table of cited authorities and states that a presiding officer may require parties to file copies of the text

⁷⁸ Public Counsel’s Amended Motion to Strike, p. 5.

⁷⁹ CenturyLink’s Opposition to Public Counsel’s Amended Motion to Strike, p. 2.

of authorities that are cited in a parties' brief upon which a parties placed substantial reliance.

60 The Company's argument is unpersuasive. Indeed, in this case, the Company is not citing to legal authorities, but to trade articles that are not in evidence. CenturyLink cites these articles as "authorities" to bolster or oppose factual arguments made in written testimony or during hearing. Generally, for purposes of WAC 480-07-390 and WAC 480-07-395(1)(c)(vi), we view "authorities" to mean legal opinions, official documents, or undisputed documents or facts of which the Commission takes administrative notice. We agree with Public Counsel that the inclusion of these articles after the close of the evidentiary record denies the parties the ability to question their veracity, explore their context, and respond to their use in shaping the Commission's views on disputed issues of fact. To allow the use of such unadmitted "authorities" as these articles for the purposes of addressing disputed issues of fact would create a dangerous precedent that would potentially deny parties their due process rights in Commission adjudications.

61 Accordingly, we grant Public Counsel's Motion to Strike Attachment 1 and Portions of the Opening Brief of CenturyLink.

62 **ALLEGED VIOLATIONS.** The Complaint alleges CenturyLink violated several statutory provisions and Commission rules. Pursuant to RCW 80.36.080, telecommunications companies are required to render prompt, expeditious, and efficient service, to keep their facilities, instrumentalities, and equipment in good condition and repair, and to ensure that their appliances, instrumentalities, and services are modern, adequate, sufficient, and efficient. RCW 80.36.220 provides that telecommunications companies must receive, exchange, and transmit other telecommunications companies' messages without delay or discrimination, and shall receive and transmit messages for any person. Commission telecommunication rules specifically provide requirements for E911 service obligations and communications in the event of any major outage. WAC 480-120-412(2) requires a company to notify the Commission and any affected PSAP "as soon as possible" after receiving notice of or detecting any major outage. Under WAC 480-120-450, local exchange companies (LECs) must provide enhanced 9-1-1 (E911) services. Only some of those legal requirements apply here, as we discuss below.

63 CenturyLink was under contract with WMD to be the state's E911 service provider for many years, but in 2016 WMD selected Comtech to fulfill that role. The parties arranged for a transition plan from CenturyLink to Comtech through contractual amendments, and the outages at issue in this proceeding occurred during that transition phase. Throughout the transition, CenturyLink retained an obligation to provide "all services, information and data reasonably necessary to effectuate an orderly and seamless transition to such

successor provider and to ensure that there is no interruption of 9-1-1 [sic] service in the State of Washington.”⁸⁰ CenturyLink failed to meet this obligation.

64 Staff and Public Counsel contend that the packet storm on CenturyLink’s national network was a cause of the outage. CenturyLink counters that this event was not foreseeable, and that CenturyLink took reasonable efforts to prevent the network disruption that resulted. We agree with CenturyLink that the packet storm itself was not the proximate cause of the E911 outages in Washington. CenturyLink’s obligation in this state was not to ensure that no such event ever happened. Rather, CenturyLink was required to make reasonable efforts to prevent or minimize the disruption of service if such an event occurs. CenturyLink had a responsibility to create a seamless transition with no interruption of E911 service. The packet storm in CenturyLink’s Green Network resulted in more than 13,000 failed calls in Washington because the Company did not take appropriate action to prevent or minimize the disruption of service that followed the packet storm event.⁸¹

65 To protect against network issues like the packet storm in this case, E911 telecommunications networks incorporate diversity of routes, facilities, and providers. CenturyLink deployed such diversity in its own network, and, as a result, few if any E911 calls to the PSAPs CenturyLink continued to serve directly failed as a result of the packet storm. Comtech, on the other hand, used circuits it obtained solely from CenturyLink, all of which experienced significant failures.⁸² CenturyLink lays the entirety of this deficiency at Comtech’s door. We disagree with this characterization.

66 CenturyLink maintains that a demarcation point existed between its network and Comtech’s network, and that the failure resulting in the failed calls occurred on Comtech’s side of that point. Staff and Public Counsel contend that because Amendment M to the agreement with WMD does not specify the location of the demarcation point, CenturyLink bore responsibility for the failure. The specifics of the amendment, namely the location and existence of any demarcation point, are irrelevant for our purposes. We are not interpreting or enforcing that agreement. We are enforcing the applicable statute and Commission rule. Both CenturyLink and Comtech were responsible for providing E911 service during the transition period. How they divided that responsibility between

⁸⁰ Webber, Exh. JDW-38C at 18, ¶ 11(1)(a).

⁸¹ Webber, JDW-1CT at 52:11; 56:2

⁸² CenturyLink claims that the circuits it provided were jurisdictionally interstate and thus outside of the Commission’s authority to regulate. At issue in this case, however, is not the circuits themselves but the intrastate E911 service that CenturyLink provided, in part, over those facilities. The Commission has jurisdiction over that service.

themselves did not relieve either of them of their obligation to provide the entirety of the service.

67 The issue, then, is whether CenturyLink took reasonable steps to ensure that the E911 network developed during the transition would function properly. We find that CenturyLink did not. CenturyLink insisted on using an SS7-based interconnection of its network with Comtech's rather than the IP interconnection Comtech preferred. It was thus all the more incumbent on CenturyLink to make sure that the interconnection was constructed and configured properly. CenturyLink failed to do so.

68 Indeed, CenturyLink witness Klein testified during the hearing that CenturyLink deliberately made no attempt to tell Comtech how to build its network, even though it believed Comtech did not have a good plan and despite CenturyLink's long experience with building its own network.⁸³ CenturyLink's claims that its service order tech could not be expected to know that Comtech's circuit order would be used for nondiverse facilities rings hollow. The personnel involved in the transition coordination between the companies should have known, or at least inquired about, how Comtech was setting up its network, including the extent to which Comtech was using sufficiently diverse circuits. CenturyLink's refusal or failure to do so was not reasonable and resulted in violations of the Company's legal obligations.

69 The Commission finds, by a preponderance of the evidence, that CenturyLink violated RCW 80.36.080 by failing to make reasonable efforts to provide acceptable E911 service in Washington, resulting in failed 911 calls to Washington customers.⁸⁴ CenturyLink also violated WAC 480-120-412 when the Company failed to notify all PSAPs and the Commission of the outage. Again, CenturyLink bore responsibility for the provisioning of the entire service and thus was obligated to notify the PSAPs, including the PSAPs that the Company continued to serve directly, even though there may not have been any affected calls to those PSAPs.

70 There is no evidence in the record, however, that CenturyLink originated or terminated any of the failed 911 calls and thus the Company did not fail or refuse to receive, exchange, or transmit messages with another carrier within the meaning of RCW 80.36.220. Nor was CenturyLink acting as a local exchange carrier in the provisioning of

⁸³ Klein, TR 339:22-444:2.

⁸⁴ Consistent with Commission precedent we use the preponderance of evidence standard in penalty cases. *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Docket PG-041624, Order 07, ¶ 11 (Oct. 7, 2005) (complaint for penalties against utility arising from a natural gas explosion in Bellevue; Commission cites "preponderance of evidence" standard).

the E911 service at issue here and thus did not violate WAC 480-120-450 when calls failed during the outage.

71 **PENALTIES.** Pursuant to RCW 80.04.380, the Commission may penalize a public service company that violates any provision of Title 80 RCW or any rule of the Commission, up to \$1,000 for each offense. Each day the violation continues is a separate and distinct offense.

72 More than 13,000 calls to 911 were not completed because of CenturyLink's failures, each resulting in a violation of RCW 80.36.080 for a potential penalty of \$13 million. Public Counsel advocates for the maximum penalty, but Staff recommends a penalty of \$100 per violation, albeit for violations of all alleged statutes and Commission rules. Additionally, CenturyLink did not notify any of the 15 PSAPs it still served, and Staff seeks \$1,000 for each violation of WAC 480-120-412(2), totaling \$15,000.

73 In any enforcement proceeding, the Commission's goal is to obtain compliance and ensure that services within the Commission's jurisdiction are delivered safely, adequately, and efficiently,⁸⁵ not simply to punish businesses operating in Washington. CenturyLink no longer provides the E911 service at issue in this Docket. Any penalty we assess thus would have no effect on CenturyLink's compliance with the obligations related to 911 service but would encourage the Company's adequate provisioning of other services. We also agree with Public Counsel that CenturyLink and Comtech shared responsibility for providing E911 service during the transition and for the call failures.

74 The Commission's Enforcement Policy provides 11 factors to consider when assessing a penalty for violations of Commission rules, laws, and orders. Of those factors, the following eight are relevant here:

- 1) The seriousness of the violation and the harm to the public;
- 2) Whether the company self-reported the violation;
- 3) Whether the company was cooperative and responsive;
- 4) The number of violations;
- 5) The number of customers affected;

⁸⁵ Docket A-120061, *Enforcement Policy for the Washington Utilities and Transportation Commission* ¶ 15 (Jan. 7, 2013) (Enforcement Policy).

- 6) The likelihood of recurrence;
- 7) The company's past performance regarding compliance, violations, and penalties; and
- 8) The size of the company.⁸⁶

75 *First Factor.* 911 service is a telecommunications company's highest duty, and there is no more serious violation than the inability of Washington residents to make a 911 call in an emergency. Additionally, the outage threatened the health and safety of everyone in Washington.⁸⁷ Staff's Investigation Report documents several reported events that occurred during the outage for which 911 calls could not be completed, including a bank robbery, several medical emergencies, and a vehicular accident.⁸⁸ The impact and harm to the public was significant.

76 *Second Factor.* CenturyLink did not notify or self-report the outage to the Commission or PSAPs. In fact, CenturyLink's witness testified that the Company intentionally remained silent when it recognized potential issues with Comtech's design.

77 *Third Factor.* Staff's Investigation Report documents that it requested CenturyLink to provide the number of Washington customers affected by the December 2018 outage on four separate occasions. On the first three occasions, CenturyLink refused to provide customer data because it claimed no services under the Commission's jurisdiction, including E911 service, were affected.⁸⁹ Although the Company eventually cooperated, it should have provided responsive information to Staff's first request.

78 *Fourth and Fifth Factors.* Parties estimate that between 10,000 and 14,000 911 calls failed during the outage. We adopt Commission Staff's finding, based on its review of CenturyLink's call data,⁹⁰ that approximately 13,000 calls failed.⁹¹ Not only is this a

⁸⁶ Enforcement Policy at ¶ 9.

⁸⁷ Hawkins-Jones, Exh. JHJ-1CT at 13:1-18:18.

⁸⁸ Staff Investigation Report, pp. 13-14.

⁸⁹ Staff Investigation Report, p. 12.

⁹⁰ Webber, Exh. JDW-28C at 2.

⁹¹ With the exception of Public Counsel, which used a call flow estimate, each party's estimated number of failed calls is confidential. The call data in Exh. JDW-28C identifies the error code associated with each failed call, which is confidential. To avoid disclosing confidential information, the Commission rounds the total number of violations down to 13,000.

significant number of violations, but all 7.4 million residents of Washington were at risk during the 49 hours and 32 minutes that service was compromised.

- 79 *Sixth Factor.* CenturyLink is no longer the 911 service provider for Washington state. However, there was no evidence that it attempted to improve its communications with or assistance to Comtech regarding the failures that occurred during the December 2018 outage. Given its compliance history and experience as a provider, CenturyLink should have been vigilant about imparting its 911 expertise during the transition of 911 business to Comtech.
- 80 CenturyLink may not be the current 911 service provider but, given its continued telecommunication activities in Washington, the likelihood that it may contract for services again still exists.⁹² Additionally, given CenturyLink's compliance history described above, the Commission finds it reasonably likely that the Company would repeat these violations.
- 81 *Seventh Factor.* CenturyLink had been a 911 Service provider in Washington state since 2009. In that time, the Commission has had at least four proceedings against CenturyLink for violations of WAC 480-120-412, one of which also included violations of RCW 80.36.080.⁹³ CenturyLink was aware of its obligations under these statutes and rules.
- 82 *Eighth Factor.* With respect to the size of the Company, CenturyLink is not a small telecommunications provider. In the Company's 2022 Annual Report, it claimed a total gross operating revenue of \$17,619,947.63.
- 83 Public Counsel recommends the Commission assess penalties of \$1,000 per violation for each failed 911 call and each of the 15 PSAPs the Company failed to notify of the outage. This would result in a total penalty of \$13,015,000 based upon our finding that CenturyLink committed 13,000 violations of RCW 80.36.080 and 15 violations of WAC 480-120-412(2).
- 84 Staff recommends the Commission assess penalties of \$100 per violation for each failed 911 call, and \$1,000 per violation for each of the 15 PSAPs that CenturyLink failed to notify of the outage. This results in a total penalty of \$1,315,000, based on the violations we find in this Order.

⁹² Because CenturyLink is no longer a 911 service provider there is no compliance program to consider.

⁹³ Hawkins-Jones, Exh. JHJ-3C at 6-7.

85 We conclude that Public Counsel’s recommendation is unduly punitive for two reasons. First, the Commission’s Enforcement Policy states that the Commission does not intend to take enforcement actions disproportionate to a company’s revenues.⁹⁴ Public Counsel recommends the Commission assess a penalty equivalent to 74 percent of the Company’s gross operating revenue in 2022, which is inconsistent with Commission policy and practice. Second, because CenturyLink no longer provides 911 service, the penalty cannot serve to deter the Company from incurring repeat violations.

86 The Commission instead adopts Staff’s recommendation to assess \$100 penalties for each of the 13,000 violations of RCW 80.36.080, and \$1,000 penalties for each of the 15 violations of WAC 480-120-412(2), for a total penalty of \$1,315,000. This amount is significant without being unduly punitive in proportion to the Company’s revenues. It also provides an incentive for the Company to comply with its current and future legal obligations.

FINDINGS AND CONCLUSIONS

- 87 (1) The Commission is an agency of the state of Washington, vested by statute with authority to regulate rates, rules, regulations, and practices of public service companies, including telecommunications companies, and has jurisdiction over the parties and subject matter of this proceeding.
- 88 (2) CenturyLink is a public service company regulated by the Commission, providing service as a telecommunications company.
- 89 (3) The statewide 911 service CenturyLink was providing under contract with WMD on December 27, 2018, was a telecommunications service subject to the requirements in RCW 80.36.080, RCW 80.36.220, WAC 480-120-412(2), and WAC 480-120-450(1).
- 90 (4) Pursuant to RCW 80.36.080, telecommunications companies must render prompt, expeditious, and efficient service; keep its facilities, instrumentalities, and equipment in good condition and repair; and ensure that its appliances, instrumentalities, and services are modern, adequate, sufficient, and efficient.
- 91 (5) During the December 2018 outage, CenturyLink committed at least 13,000 violations of RCW 80.36.080 by failing to render prompt, expeditious, and

⁹⁴ Enforcement Policy at ¶15.

efficient service; to keep its facilities, instrumentalities, and equipment in good condition and repair; and to ensure that its appliances, instrumentalities, and services are modern, adequate, sufficient, and efficient, resulting in at least 13,000 dropped or incomplete 911 calls.

- 92 (6) Pursuant RCW 80.36.220, telecommunications companies must receive, exchange, and transmit other telecommunications companies' messages without delay or discrimination, and shall receive and transmit messages for any person.
- 93 (7) The record evidence does not support a finding that CenturyLink violated RCW 80.36.220.
- 94 (8) WAC 480-120-412(2) requires telecommunications companies to notify the Commission and any affected PSAP "as soon as possible" after receiving notice of or detecting any major outage.
- 95 (9) CenturyLink committed 15 violations of WAC 480-120-412(2) by failing to notify the affected PSAPs it served or the Commission of the December 2018 major outage as soon as possible after receiving notice of or detecting the December 2018 major outage.
- 96 (10) WAC 480-120-450(1) requires LECs to provide E911 service.
- 97 (11) The record evidence does not support a finding that CenturyLink violated WAC 480-120-450(1).
- 98 (12) Any public service company that violates any provision of Title 80 RCW or any rule of the Commission may be penalized up to \$1,000 per violation.
- 99 (13) The Commission should impose a \$100 penalty for each of the 13,000 violations of RCW 80.36.080 for a total of \$1,300,000.
- 100 (14) The Commission should impose a \$1,000 penalty for each of the 15 violations of WAC 480-120-412(2) for a total of \$15,000.

ORDER

THE COMMISSION ORDERS:

- 101 (1) Public Counsel's Motion to Strike Testimony is GRANTED.

- 102 (2) The Commission assesses a \$1,315,000 penalty against CenturyLink Communications, LLC, due and payable immediately.

Dated at Lacey, Washington, and effective June 9, 2023.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DAVID W. DANNER, Chair

ANN E. RENDAHL, Commissioner

MILTON H. DOUMIT, Commissioner

NOTICE TO PARTIES: This is a Commission Final Order. In addition to judicial review, administrative relief may be available through a petition for reconsideration, filed within 10 days of the service of this order pursuant to RCW 34.05.470 and WAC 480-07-850, or a petition for rehearing pursuant to RCW 80.04.200 and WAC 480-07-870.