BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

CENTURYLINK COMMUNICATIONS, LLC.,

Respondent.

EXHIBIT TO TESTIMONY OF

JAMES D. WEBBER

ON BEHALF OF STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

CenturyLink Responses to Public Counsel Data Requests

December 15, 2021

CONFIDENTIAL PER PROTECTIVE ORDER – REDACTED VERSION
In this and subsequent questions, the Inter-Tandem Trunk (ITT) is the name given to the interface between the CenturyLink Emergency Services IP Network (“ESInet”) and the Comtech ESInet. It is our understanding that, at the time of the December 2018 outage event, calls were collected from Originating Service Providers (OSP), and if they were destined for public safety answering points (PSAP) that had been transitioned to the Comtech ESInet, were routed to the ITT and then to Comtech. The ITT was signaling system 7 network (“SS7”) based. At what point during the course of the December 2018 outage was the Company notified that calls were not being received from the ITT system?

RESPONSE:

CLC understands that, as used here, “inter-tandem trunk” (or “ITT”) refers to the trunk (in service at the time of the December 2018 outage) connecting the CenturyLink gateway and the Comtech gateway for 911 calls directed to Washington PSAPs that had already migrated and were being served by Comtech. On the diagram provided as Attachment PC-7 (Bates No. CLC-001454), the ITT is denoted as “Comtech ES (ITT) Trunk Voice Path” (see Attachment PC-7, step 7.d.). With that understanding, CLC responds as follows.

This data request appears to be premised on a false understanding of the facts underlying the outage at issue in this proceeding. Public Counsel seems to assume that the ITT failed, and that the failure occurred on the CenturyLink 911 network and/or the CenturyLink side of the demarcation point between the two networks. It did not. Instead, some calls directed to Comtech-served PSAPs failed to reach the Comtech ITT because the Comtech SS7 links used to established call setup between the CenturyLink/Intrado and Comtech NG911 ESInets over the ITT were impacted. The Comtech SS7 links that were impacted by the outage sat on the Comtech side of the demarcation point between the CenturyLink and Comtech networks (see Attachment PC-7, step 7.b.), and were thus Comtech’s contractual and regulatory obligation to design, construct and maintain. Calls destined for CenturyLink-served PSAPs were completed because they did not use the Comtech SS7 links or the Comtech ITT.

CLC interprets “At what point during the course of the December 2018 outage was the Company notified that calls were not being received from the ITT system?” to be asking when did Comtech notify CenturyLink that Comtech was not receiving 911 calls over the Comtech ITT. The earliest indication of ITT issues from Comtech appears to have been received by CenturyLink at 1:07 am on December 28, 2018 in an email from Pat Margherio (Comtech) to Jacob Clow (CenturyLink) (“Jake, Can you provide a resource to join 206-812-0288 ext 2464 to and work through why CenturyLink believes the impact to the SoWA ITTs is not related to the national outage? Pat”). At 1:39 am on December 28, 2018, Comtech first indicated to CenturyLink that they saw an issue with their SS7 links.
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SUPPLEMENTAL RESPONSE 12/03/21:

Based in part on information produced by Comtech and the Washington Military Department, CLC has updated and expanded upon original Attachment PC-7 (Bates No. CLC-001454), which will be replaced in its entirety by Attachments PC-7a and PC-7b (Bates Nos. CLC-003283-003284).

Attachment PC-7a is an updated and corrected version of PC-7 which reflects that, per WMD’s response to Public Counsel Data Request 4, Lumen selective routers (previously shown as step 2) were removed from service before the December 2018 network event. As depicted on Attachment PC-7a, originating service providers terminated directly to the Intrado LNG (gateway), and thus step 2 has been removed.

Attachment PC-7a has also been modified to reflect that Intrado (partnering with TNS) provided CenturyLink SS7 functionality, as opposed to Lumen providing its own SS7 functionality as originally depicted. See step 7.

Attachment PC-7b provides greater detail of steps 7a-7c of the call flow (the SS7 functionality provided by CenturyLink/Intrado and by Comtech/TNS), as depicted more generally in Attachment PC-7a. As noted on Attachment PC-7a, that attachment (for simplicity) shows only one path for each step along the call flow, but notes that there are redundant paths. Attachment PC-7b shows those redundant paths and includes the specific circuit IDs, as provided by Comtech in discovery. As noted in response to other data requests, CLC was not aware of which circuits (if any) ordered by Comtech or TNS were being utilized by Comtech/TNS to provide Comtech’s SS7 functionality. Comtech was solely responsible for the design, construction and maintenance of its own SS7 network.

As did Attachment PC-7, Attachments PC-7a and PC-7b accurately reflected the demarcation point between CenturyLink’s and Comtech’s SS7 networks. Comtech was solely responsible for the design, construction and maintenance of its own SS7 network. Comtech could have self-provisioned its STP nodes and SS7 links and/or it could have obtained those nodes/links from a host of providers. It appears Comtech (and its contractor TNS) chose to utilize four separate circuits sitting on the same Infinera network, but that was Comtech’s choice and responsibility. Contrary to WMD’s suggestion (in its response to Public Counsel Data Requests 4-7), the Comtech RCL was not the actual or logical demarcation point. Comtech itself identified the demarcation as the point depicted on Attachments PC-7a and PC-7b. See CLC’s Response to Staff Data Request 19, including Confidential Attachment Staff-19a (in particular, Bates Nos. CLC-001591 through CLC-001601). CenturyLink did not design or construct Comtech’s SS7 network, and Comtech is responsible for any failure of that network.

Respondent: CenturyLink Legal
Carl Klein, Manager Public Safety Services
PC-11 At the time of the outage event, were there Service Level Agreements (SLA) that defined CenturyLink’s commitments for service it was supplying to WMD? Were these SLAs met during the outage event? If so, please explain and provide copies.

RESPONSE:

Yes, SLAs remained in effect for the 15 Washington PSAPs still being served by CenturyLink at the time of the outage. Yes, CenturyLink met the SLAs, as the outage did not impact the delivery of 911 calls to the 15 PSAPs.

Respondent: CenturyLink Legal
Vicki Hyett, Sr. Operations Service Manager

SUPPLEMENTAL RESPONSE (August 5, 2021):

There are no SLAs embedded in the 911 services contract (as produced by WMD in response to data request PC-3 from WMD to Public Counsel) between WMD and CenturyLink. The only applicable SLAs appear in the commercial agreement (CenturyLink IQ® Networking) for MPLS service between WMD and CenturyLink. Those SLAs can be found on CenturyLink’s website: https://www.centurylink.com/legal/docs/CenturyLink-IQ-Networking-SLA.pdf

Respondent: CenturyLink Legal
Vicki Hyett, Sr. Operations Service Manager
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PC-12 Did CenturyLink commit to a “Five Nines Availability” for services provided under the contract to WMD?

**RESPONSE:**

Yes, CenturyLink’s contract with WMD included a goal of 100% availability of circuits used to support 911 services. To clarify, 911 service remained available and in working order to all 15 CenturyLink PSAPs throughout the network event.

**Respondent:** Vicki Hyett, Sr. Operations Service Manager
PC-13 Was the design of CenturyLink’s system in effect at the time of the outage event supposed to meet a five nines availability SLA?

RESPONSE:

If by “CenturyLink’s system,” Public Counsel is asking whether the 911 network used to connect calls to the remaining 15 CenturyLink PSAPs was designed to satisfy the SLAs in the WMD contract, the answer is yes. As set forth in response to PC-11, which CLC incorporates by reference, CenturyLink satisfied these SLAs as calls to the 15 PSAPs it was responsible for completed.

Respondent: Vicki Hyett, Sr. Operations Service Manager
PC-27  Was SIGTRAN used for any SS7 connections within the CenturyLink networks that provided 9-1-1 service? If so, were the IP networks that supported the SIGTRAN connections affected in any way by the outage event?

RESPONSE:

CLC objects to this data request on the basis that it is not reasonably calculated to lead to the discovery of admissible evidence. As framed by the complaint, this case concerns whether CLC violated Washington law in its provision of 911 service in Washington during the December 27-29, 2018 network event. This data request appears to be exploring matters outside the scope of the complaint. Furthermore, this data request and numerous others in this set seek to investigate an outage on CLC’s national transport network. The outage did not directly affect CLC’s or its affiliates’ remaining 911 network in Washington. Instead, it affected CLC’s national transport network. More specifically, the outage affected interstate DS-3 circuits purchased by a vendor of Comtech on behalf of Comtech (for the provision of SS7 functionality), the responsible Washington 911 provider for the PSAPs that experienced a 911 outage. The interstate and non-regulated services provided on CLC’s national transport network, and the facilities utilized to provide such services, are not regulated by the Commission, and the Commission lacks jurisdiction over them. In Re AT&T Commc’ns of the Pac. Nw., No. 04, 2003 WL 23341214 (Wash. U.T.C. Dec. 1, 2003) (“AT&T's proposed language would encompass facilities-access purchased out of federal tariffs over which the Commission lacks jurisdiction.”) (citing 34th Supplemental Order; Order Regarding Qwest’s Demonstration of Compliance with Commission Orders, Investigation Into U S WEST Communications, Inc.’s Compliance With Section 271 of the Telecommunications Act of 1996; U S WEST Communications, Inc.’s Statement of Generally Available Terms Pursuant to Section 252(f) of the Telecommunications Act of 1996, Dkt. Nos. UT-003022, UT-003040, ¶ 22 (May 2002)); MilleniaNet Corp. v. Pennsylvania Pub. Util. Comm’n, No. 990 C.D. 2008, 2009 WL 9104922 (Pa. Commw. Ct. Apr. 30, 2009) (complaint dismissed because the “the PUC does not have jurisdiction over interstate telecommunications services.”). Without waiving its objections, CLC responds as follows.

No, CLC did not use SIGTRAN for any SS7 connections.

Respondent: CenturyLink Legal
Carl Klein, Manager Public Safety Services
Drew Groff, Director NOC Compliance