181051 Exh. BR-35X

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CTL-6 Please characterize and fully describe WMD's role and involvement in the process and design decisions made among itself, CenturyLink, and Comtech throughout the transition from CenturyLink being the state's 911 provider to Comtech being the state's 911 provider.

RESPONSE:

WMD believes its role in design was minimal, beyond what was specified in the RFP. In fact, RFP-16-GS-NG911, in part, says, "... it is not the intent of this RFP to provide implementation details that would limit the BIDDER's solution to one particular technology." Comtech continually presented WMD with its design and implementation plans to gain WMD's concurrence. This was anticipated and appreciated throughout the project. When Comtech and CenturyLink could not reach an agreement on how to interconnect the two networks, WMD attempted to facilitate and mediate the interconnection design discussions, but WMD relied upon these two contractors to meet the terms of their separate agreements with WMD. Upon agreement by all parties to meet in person and work together to arrive at a solution mutually agreeable, WMD, to include the technical staff of the State 911 Coordination Office, were present to continue facilitating the discussion. The Telecommunications Engineer in the State 911 Coordination Office mediated the telecommunications engineers to arrive at a mutually agreeable solution. Over the course of several months, Comtech, CenturyLink, and CenturyLink's subcontractor Intrado, worked together to further develop and refine the interconnection solution, which culminated in a formal presentation by all parties to WMD. At the conclusion of the presentation, WMD accepted the solution for

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implementation. The level of collaboration described above, continued for the most part, throughout the transition.

Date Prepared: 1/24/2022 Prepared by: AAG Dawn Cortez and William Andrew Leneweaver Witness: William Andrew Leneweaver Phone No: 360.586.6470 (new number for AAG Dawn Cortez)

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Purpose: The purpose of this document is to provide a list of questions/topics Comtech Telecommunications (Comtech) would like to discuss with Century Link and West, on behalf of the state of Washington, in order to facilitate the inter-connection, integration and inter-operability testing between Century Link's and/or West's NG911 Service Platform (ESInet1) to Comtech's NG911 Service Platform (ESInet2). The end result we want to achieve is joint agreement on communication and plans to transition the WA PSAPs and Carriers off ESInet1 and the West ALI Database, and onto ESInet2 and Comtech ALI database.

Comtech wants to understand certain aspects of West's in-bound and/or out-bound signaling for call origination and call transfer (ESInet to ESInet Inter-connection). Additionally, Comtech wants to discuss utilizing ALI to ALI Query during the transition of the WA PSAPs to ESInet2, as well as the PSAP and Carrier cuts. Finally, we want to discuss the ALI Data Transition requirements.

The areas of discussion:

- 1. Project Transition Planning
 - a. Initial Discussions
 - b. Communication Plan
 - c. Review of documentation and call and/or data flows
 - d. IOT Scheduling (ESInet to ESInet and ALI to ALI query)
 - e. PSAP Transition/Cuts to ESInet2
 - f. Carrier Transition/Cuts to ESInet2
- 2. ESInet to ESInet (Selective Router Inter-Connection and IOT)
 - a. ESInet1 and ESInet2 ICD Review & Agreement
 - b. Inter-connection, Transport/Facilities
 - c. Inter-Operability Testing (IOT)
- 3. Transport (Inter-connection and circuits)
- 4. ALI to ALI Query Connection
 - a. NENA 04-001 ALI to ALI query Discussion and Agreement
 - b. Inter-connection, Transport/Facilities
 - c. IOT
 - d. Data Transition
- 5. PSAP Cuts to ESInet2
- 6. Carrier Cuts to ESInet2

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A1 - Transition Planning (Stage 1 through Stage 3)

Comtech business point of contact: Danny McGinnis

206.792.2672, danny.mcginnis@comtechtel.com

Our project manager (PM) contact: Rebecca Yeatman

206.792.2211, <u>Rebecca.yeatman@comtechtel.com</u>

Comtech's PM will be CenturyLink/West's main point of contact for the transition work. It is expected that ESInet2 and ESInet1's Technical Transport and Telecom teams will need to communicate directly as needed to facilitate the integration and testing of the necessary trunks and circuits for inter-connection. Once we work through the outline discussion items, the Comtech PM will facilitate other meetings as needed, as well as action items on the Comtech side. She will work with her counterparts on the West/CenturyLink side as needed.

#	Question	
A1.1	Communication Plan	
	Exchange Contact Information:	
	 project management 	
	 technical transport testing 	
	 technical telecom switch testing 	
	Set up weekly meeting timeslot	
A1.2	Target date ICD reviewed and agreed on (inter-connection)	
A1.3	Target trunk/circuit testing complete (integration)	
A1.4	Target date IOT testing: Call Routing - test plan review, start and then complete	
	(integration)	
A1.5	Target date IOT testing: ALI to ALI Query - test plan review, start and then complete	
	(integration)	
A1.6	Target date for ESInet to ESInet Production Go Live	
A1.7	Target date for ALI to ALI Query Production Go Live	
A1.8	PSAP Cut Plan	
A1.9	Carrier Cut Plan	

A2 - Transport (Inter-Connection and Circuits) (Stage 1-3)

Comtech has interconnected to CenturyLink and West on other 911 projects, including NG911. We expect to follow standard operating procedures to manage Transport and Telecom interconnection.

#	Question
A2.1	Confirm Comtech's assumption we will use IP Circuits (SIP/RTP) for call routing and call
	transfer.

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	10/26/16 West confirmed that they have a lab.
A2.2	Can Comtech use the same IP Circuits for Call Origination, Call Transfers and ALI Queries?
	If no, see A2.4, additional transport/facility questions for ALI Query circuits.
	10/26/16 – West confirmed that separate circuits must be used for calls and ALI
A2.3	A2.3.1 Discuss circuit bandwidth required to handle Carrier's Call Origination and Call
	Transfers for duration of Carrier Transition and ALI queries if using same circuits for all
	3.
	A2.3.2 How many concurrent calls (peak during busy hours)? Include ALI Query
	volumes, utilizing peak calls)?
	A2.3.3 If we agree to utilize same circuits for data, do we want to partition circuits (QOS)
	for the 2 types of traffic (voice versus data)?
	A2.3.4 Discuss originating trunk group (OTG) conveyance in INVITE message from
	Century Link/West to Comtech's NG911 Service Platform.
A2.4	A2.4.1 Given we are not cutting carriers in Stage 1 (Stage 1 = PSAP onboarding to
	ESInet2), does West require separate circuits for Call Origination and Call Transfers to
	the Comtech ESInet? And separate circuits for transfers from the Comtech ESInet to the
	West IPSR?
	A.2.4.2 Comtech assumes West/CenturyLink have diverse and redundant POIs:
	what are the designated destination POIs on West side?
	 <u>10/26/16 West has two Core Production sites: Englewood, CO</u>
	<u>and Miami, FL:</u>
	 will need to exchange other data: Origination ID Address (Comtash's) plus CLU sodes for both CLCs
	 Origination IP Address (Contect s) plus CLLI codes for both CLCs Destination IP Address (West's and /or Contury ink's)
	 Destination if Address (West's and/or CenturyLink's) CLU codes for all CenturyLink (West POIs
125	- CLLI codes for all central yLlink/ west POIs
A2.5	Accumes West /Contury ink diverse and redundant POIs
	• Assumes west/centuryLink diverse and redundant POIs.
	What is the designated destination POIs on west side: West confirmed 2 POIs for ALL are in Longmont. CO and Seattle, WA
	Appeared to confirm we can't use our existing circuits for ALL link to
	Longmont CO
	\circ Comtech assumes queries to be over MPLS circuits
	 Number of circuits
	• Will need to exchange other data:
	 Origination IP Address (Comtech's) plus CLU codes for both CLCs
	 CLU codes for all CenturyLink/West POI Switches that Comtech
	will need to order circuits to
	 Destination IP Address (West's and/or Century Link's)

A3 - ICD Review Call Origination and Call Transfer (Call Flows) (Stage 1-3)

#	Questions/Issues
A3.1	Review West's ICD –IP Network-to-Network Interface Spec, For VoIP Interconnection to
	the ESInet, Version 1.3.

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A3.2	Are there any updates to the sample Call Origination INVITE messages in the West ICD,	
	referenced in A3.1?	
	Can West ESInet assign a Routing Destination Number (RDN) per PSAP for call	
	origination during the transition?	
	If yes, Comtech will provide RDNs for each PSAP	
A3.3	Need to determine means to handle call transfer (both ways)	
	 What would SIP message call flow look like for Call Transfers? 	
	 What data is required in SIP messaging for Call Transfer? 	
	 Can West ESInet assign a Routing Destination Number (RDN) per PSAP for 	
	handling call transfers during the transition?	
	 If yes, Comtech will provide an additional transfer RDN for each PSAP. 	
	 If no, what other means can we utilize to handle call transfers? 	
A.3.4	Agree to share a sample Call Transfer SIP message, once we've established how to handle	
	call transfers. Plus add to ICD.	
A.3.5	What error scenarios should we consider?	
	e.g. Conditional PSAP Routing (conditions 1, 2 and 3)	
A.3.6	Call Routing - IOT Test Plan – Comtech to create, West/CTL and State will review	

A4 - ALI to ALI Query and ALI Transition (Stage 1-2)

Plan is to cut PSAPs onto the Comtech ESInet in Stage 1 of the transition. PSAP query and ALI data spill processes will be managed by Comtech's ESInet2 upon the PSAP cut.

#	Questions/Issues
A4.1	Confirm will utilize 04-001 ALI to ALI query
A4.2	Can Comtech get a sample of the formatted ALI response data from West?
A4.3	Can we get a sample of what field data is returned on a NRF?
A4.4	ALI IOT Test Plan – Comtech to create, West and State will review
A4.5	Can Comtech get a list of the carriers and the corresponding Company IDs who are
	loading data into the West ALI for state of WA? If you also have main contact information
	for carriers, it would be helpful if we received that as well.
A4.6	A4.6.1 Can Comtech get a sample of the format, including actual telephone number
	record data, that West will be providing the state, specific to the ALI Telephone Number
	Data?
	A4.6.2 Can Comtech get a sample of the format, including actual MSAG range record data,
	that West will be providing the state, specific to the MSAG Range Data?

A.5 - PSAP Cut (Stage 1)

A5.1 Add discussion items once we solidify A2, A3 and A4	

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A.6 - Carrier Cut (Stage 3)

#	Questions/Issues
A6.1	Add discussion items once we solidify A2, A3 and A4.

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