

System Administrators and PSAP Managers

The State of Arizona 9-1-1 office has reviewed the service agreement documents provided by CenturyLink with regards to implementing a Managed Services solution for 9-1-1 in the Arizona CenturyLink territory. The change from the current (legacy) service is required for Arizona to maintain and grow the level of service we provide our citizens for 9-1-1. It will allow for necessary changes due to the ever growing needs of future technology.

This agreement is between you (the customer) and CenturyLink much like your original agreement to implement Enhanced 9-1-1. There is **no State contract** in place for this service which is why it is necessary for you to utilize your own procurement process if deemed necessary by your agency.

Due to the highly technical differences between the legacy environment and the Next Generation 9-1-1 environment, our office felt the need to solicit the services of Mission Critical Partners, a third party consultant, to review the agreement documents. Their review resulted in changes and clarifications to ensure Managed Services meets and/or exceeds the current needs as well as prepare our 9-1-1 centers for future enhancements. This offering will allow our office to continue the current level of support without an increase in the 911 taxes.

The attached document from Mission Critical Partners is a condensed view of information that was questioned and clarified. As you will see there are a few items that were not amended and the decision of their importance lies with you.

If you choose to move forward with Managed Services, the attached funding letter from our office is provided to accompany the service agreement for process through your procurement procedures.

Should you have any questions please contact our office.



9-1-1 Managed Services Technical Review

PHASE III

FINAL REVIEW OF CENTURYLINK MANAGED SERVICES AGREEMENT DOCUMENTS

**SUBMITTED FEBRUARY 2016 TO:
STATE OF ARIZONA 9-1-1 PROGRAM**

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1. BACKGROUND

The State of Arizona 9-1-1 Program (Program) retained Mission Critical Partners, Inc. (MCP) to support its review of CenturyLink's Managed Services offering. This document summarizes the issues or concerns that MCP identified in CenturyLink's documentation.

A list and description of the technical documents reviewed is provided in Table 1.

Table 1: Technical Documents Reviewed

Document Name	Description
9-1-1 AZ MSA Agreement 11-13-2015 Final	Master Services Agreement (MSA)
CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment	Description of services for the Managed Services offering
CenturyLink Next Generation 9-1-1 Service Exhibit	Description of NG9-1-1 services
CenturyLink Intrado Hosted VIPER Service Exhibit	Description of the hosted Intrado VIPER solution
CenturyLink Airbus VESTA Service Exhibit	Description of the hosted Airbus VESTA solution
Domestic CenturyLink IQ Networking Service Exhibit	Description of multi-protocol label switching (MPLS) network services
Local Access Service Exhibit	Description of local access services
Domestic Network Diversity Services Exhibit	Description of Network Diversity services
CenturyLink Select Advantage Service Exhibit	Description of Select Advantage services
CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements	Description of service level agreements (SLAs) for managed services
CenturyLink Intrado Hosted VIPER Statement of Work	Detailed statement of work (SOW) for hosted VIPER
CenturyLink Airbus Hosted VESTA Statement of Work	Detailed SOW for hosted VESTA
Certificate of Start of Service	Document that notifies customer of service activation
150921 CenturyLink AZ NG9-1-1 Managed Services Technical Document	Detailed services description for 2014 managed services offering (not included in MSA, exhibits, and attachments, for information only)
AZ NG9-1-1 Design (Rev 151113)	Detailed network diagram
CenturyLink NG9-1-1 with Managed 9-1-1 CPE SOW for Infrastructure Implementation, aka "Managed 911 Infrastructure SOW AZ 11 13 2015"	Detailed SOW for the network connectivity and infrastructure required to support the hosted customer premise equipment (CPE) solution
Location Data Management Service Guide (v4)	Description of Location Data Management Services
Routing Service Guide (v3)	Description of routing services
9-1-1 AZ MSA Agreement final – Vesta 21916	Final MSA for services using Vesta CPE that was updated based on 2015–2016 negotiations
9-1-1 AZ MSA Agreement final – Viper 21916	Final MSA for services using Viper CPE that was updated based on 2015–2016 negotiations



2. SERVICES AGREEMENT DOCUMENTATION REVIEW

Table 2 contains headers of Topic Area, Commentary, Reference, and Resolution and/or Final Recommendation. The Topic Area section provides a brief description of the identified issue. The Commentary section describes the issue in detail, and may include a recommendation. The Reference section provides the CenturyLink document title. The Resolution and/or Final Recommendation outlines whether the issue described in the Commentary has been resolved and final recommendations, if applicable.

Table 2: Technical Document Recommendations

#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
1	Automatic Location Identification (ALI) Database Management or Location Data Management	The CenturyLink documentation is inconsistent in using ALI Database Management and Location Data Management service names. This should be consistent throughout all documentation. MCP recommends that the Location Data Management service term be adopted as it is more forward-looking than ALI Database Management.	All applicable documents	Issue resolved. All services agreement documents that reference “ALI Database Management” have been updated to reference “Location Data Management.”
2	Geospatial Call Routing	Current services agreement documentation only provides for Internet Protocol (IP) Selective Routing (IPSR) and ALI Database Management services. This is a significant departure from the original scope of services negotiated in 2014.	CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment, Section 2.1	Issue resolved. National Emergency Number Association (NENA) i3 call routing services are now included in services agreement documents have been updated to reflect the implementation of i3 functional elements that enable geospatial call routing.
3	Single Points of Failure	MCP recommends that a new bullet is inserted after the third bullet to state that CenturyLink will comply with all Federal Communications Commission (FCC) Rules in Part 12 of 47 Code of Federal Regulations (C.F.R.)	CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment, Section 2.2	Issue unresolved.



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
		regarding annual diversity audits and disclosure of single points of failure.		
4	Monitor and Notification	<p>The fourth bullet states that CenturyLink will perform monitoring for up/down status on all MPLS port devices.</p> <p>MCP recommends that additional details regarding monitoring and maintenance be detailed in this document or one of the other service agreement documents. Sufficient details are provided in Section 8 of the “150921 Technical Document.” MCP recommends that these details be transferred to the MSA document.</p>	CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment, Section 2.2	<p>Issue resolved.</p> <p>The Managed Services Technical Document is included in the MSA.</p>
5	Security	<p>The last sentence states that the solution “does not include security analytics, penetration testing, compliance, mitigation or remediation unless Customer elects to purchase additional services separately, which may be available from CenturyLink subject to CenturyLink approval.”</p> <p>MCP recommends that CenturyLink provide a description of how security of the solution is achieved. The content in Sections 5.5 through 5.8 in “AZ NG9-1-1 Managed Services Technical Document” is appropriate and may be used as a services agreement exhibit to cover this issue.</p>	CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment, Section 2.7	<p>Issue resolved.</p> <p>Technical Document is included in the MSA as a Services Exhibit. Additional penetration testing may be procured by individual jurisdictions for a fee.</p>
6	ALI/Master Street Address Guide (MSAG) Match Rate	MCP recommends that the Program require a minimum 98 percent match rate to align with NENA’s NG9-1-1 ALI/MSAG and Geographic Information System (GIS) standard.	CenturyLink Next Generation 9-1-1 Service Exhibit, Section 2.5	<p>Issue resolved.</p> <p>Document has been updated.</p>



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
7	Equipment	<p>It appears that there are duplicate sets of inserted images for the equipment deployed in “Typical 10–19 Position PSAP.”</p> <p>MCP recommends removing the second set of redundant images. Additionally, MCP recommends inserting this information in a Word Table so that the documentation may be searched and more easily read as the current images are difficult to read</p>	CenturyLink Airbus Hosted VESTA Service Exhibit, Section 2.4	<p>Issue partially resolved.</p> <p>Redundant images have been removed.</p> <p>MCP recommends inserting the information from the images in a Word table so that the documentation may be searched and more easily read as the current images are difficult to read.</p>
8	Email Notification	<p>The section states that all official notifications will be made via email notification. This could pose an issue due to spam filters or email address changes, among other potential issues.</p> <p>MCP recommends acknowledgement of receipt of the email be requested by CenturyLink and provided by the Customer before CenturyLink considers the communication to be successfully delivered.</p>	Domestic CenturyLink IQ Networking Service Exhibit, Section 7	<p>Issue unresolved.</p> <p>However, this is a non-issue for the Program. Public safety answering points (PSAPs) must be aware that their email addresses may contain maintenance notifications in addition to outage notifications.</p>
9	Monthly SLA report	MCP recommends that the Program require CenturyLink to provide monthly SLA reports in a defined timeline, such as by the fifth business day following the reporting month.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements	<p>Issue partially resolved.</p> <p>CenturyLink has agreed to work on this request with the Program and potentially amend the services agreement at a later date.</p>
10	Time-to-detection	MCP recommends an SLA be provided for an established time-to-detection standard.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 1	<p>Issue unresolved.</p> <p>Non-issue for the Program.</p>



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
11	Level 2	In the Level 2 Description, MCP recommends striking “still working” and inserting “providing 100% call delivery capability to each PSAP.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 1	Issue resolved. SLA document updated.
12	Availability	Industry standard is 99.999 percent. MCP recommends the Program require CenturyLink to provide this commitment.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2	Issue resolved. SLA document updated.
13	Severity Level 1 Description	MCP recommends the description be rewritten to state: “Routing and ALI delivery is completely inoperative or severely impacted where network or data communication problems on the CenturyLink system prevent CenturyLink from routing 9-1-1 calls or delivery of ALI.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2.1	Issue resolved. SLA document updated.
14	Severity Level 1 Notification Timeline	MCP recommends that the word “guidelines” be struck and insert “rules” in its place.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2.1	Issue resolved. SLA document updated.
15	Severity Level 1 Example	MCP recommends the examples be rewritten to state: “PSAP not receiving calls, audio is not working if even only intermittent calls, end office traffic is not able to reach PSAP, unable to deliver location and caller information, network hardware or circuit failure at PSAP or core node.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2.1	Issue resolved. SLA document updated.
16	Severity Level 2 Notification Timeline	MCP recommends that “70%” be changed to “50%.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2.2	Issue resolved. SLA document updated.
17	Severity Level 2 Notification Timeline	MCP recommends that a defined interval be provided for regular status updates, such as “Regular status updates will be provided every 4 hours or as mutually agreed upon until the issue is resolved.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 2.2	Issue resolved. CenturyLink partially agreed to the recommendation and



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
				updated the documentation to state “as mutually agreed upon” with no time reference.
18	Mean Opinion Score (MOS)	<p>Due to redundant statements in the current text, MCP recommends that the description be rewritten as follows:</p> <p>“The Mean Opinion Score (MOS) goal is 4.0. The network operations center (NOC) will actively monitor the network’s quality using the industry standard MOS that automatically activates alarms on the router if the MOS score dips below a specific value. If the MOS score drops to 4.00 or below, a Cisco Embedded Event Manager (EEM) script will failover the call to the alternate IP network instance with no impact to the quality of the call. The EEM will continue to monitor the ‘failed’ path and will require 16 consecutive four-second tests scoring above a MOS of 4.0 in order to begin using the previous MPLS path. With this configuration, the system will consistently achieve greater than 4.0 MOS.”</p>	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 3	<p>Issue resolved.</p> <p>SLA document updated.</p>
19	Jitter and Packet Loss	MCP recommends the Program require CenturyLink to confirm that the Jitter and Packet Loss SLAs align with the minimum requirements for the Airbus VESTA and Intrado VIPER systems.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 3	<p>Issue resolved.</p> <p>CenturyLink confirmed alignment.</p>
20	Formatting	It appears that “A9-1-1” is a term floating in the section title. Perhaps it needs to be deleted or formatted differently. It’s confusing as currently presented.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 4	<p>Issue resolved.</p> <p>SLA document updated.</p>
21	9-1-1 Software Upgrades, including feature enhancements	MCP recommends that the timeline be changed from “within (12) months” to “within six (6) months”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 5	<p>Issue partially resolved.</p> <p>SLA document updated to reflect “within (9) months.”</p>



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
22	Anti-virus	Due to the broader reaching impact of viruses on a wide area network (WAN), MCP recommends that the proposed 30-day interval be updated to “within 5 days.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 5	Issue unresolved. CenturyLink states this is a labor-intensive function that would increase service costs in order to accommodate the request.
23	Hardware Refresh	MCP recommends inserting a sentence at the end of the description that states: “Hardware components will be replaced no later than 90 days prior to the manufacturer’s end of service date.”	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 5	Issue partially resolved. CenturyLink revised language to state “on or before 15 days of manufacturer end of support date or upon a mutually agreed date.”
24	Firmware	MCP recommends that a commitment be made to apply firmware updates within three (3) months from Approved for Use (AFU) certification.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 5	Issue resolved. SLA document updated.
25	A9-1-1 Routing and ALI Demarcation Point	MCP recommends that A9-1-1 routing demarcation point, i3 routing demarcation point, and A9-1-1 ALI demarcation point be defined.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 6	Issue partially resolved. The A9-1-1 IP routing demarcation point was defined. The ALI demarcation point and i3 routing demarcation point remain undefined.
26	Transitional IPSR Solution	MCP recommends that the legacy network gateway (LNG) be listed as an included component	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 6	Issue resolved. SLA document updated.
27	i3 Solution Components	An SLA for i3 solution components should not be included if the solution does not provide these services.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE	Issue resolved.



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
			Service Level Agreements, Section 6	NENA i3 service is now included in the solution offering.
28	Provisioning Components	<p>MCP recommends that the following sentence be removed as it is not appropriate for a services agreement document:</p> <p>“Note that Intrado has several personnel who are actively involved in the NENA i3 standards committees, including our Lead i3 Product Manager, who is actively involved in</p>	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 6	<p>Issue resolved.</p> <p>SLA document updated.</p>
29	VIPER	<p>MCP recommends that the description be edited to read as follows:</p> <p>“The A9-1-1 VIPER Service will be 99.999% available to present 9-1-1 voice calls to PSAP workstations (i.e. Power 911) at the Customer PSAP, as measured by the cumulative number of minutes of downtime when the system is unable to deliver 9-1-1 voice calls to at least one endpoint. This equates to a cumulative system downtime not to exceed 5.26 minutes per year.</p> <p>“Measurement Method: Down time starts when 9-1-1 voice calls cannot be delivered to any of the PSAP’s workstations. The duration of the VIPER system downtime will be determined by data contained in the VIPER log files and provided in monthly reports to the PSAP.”</p>	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 7	<p>Issue resolved.</p> <p>SLA document updated with acceptable language.</p>
30	VESTA	MCP recommends that a “Measurement Method’ be provided for VESTA, similar to what is provided for VIPER as edited above.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 7	<p>Issue resolved.</p> <p>SLA document updated with acceptable language.</p>



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
31	i3 Availability	The solution does not provide i3 functionality; therefore the SLA should be removed.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 9	Issue resolved. NENA i3 services are included in the solution.
32	i3 Availability	<p>If the solution offering is updated to include i3 functionality, then MCP recommends that the description be rewritten as follows:</p> <p>“Timing for delivery of i3 functionality cannot be guaranteed until the scope of the NENA ratified functionality is evaluated and the State of Arizona has determined a desire for that functionality. There are many items in the current i3 definition that Authorities have not yet requested and may not see fruition, some even potentially being eliminated in later versions of i3. Our commitment is that within 3 months of each NENA i3 version release, CENTURYLINK will provide a schedule for the incorporation of all applicable updates to each of its solution components. New feature functionality will be provided no later than 18 months from each i3 version release and Customer determining a desire for the applicable functionality. Furthermore, CENTURYLINK will work with the State of Arizona to identify i3 functionality that the State desires to implement in a timely manner and provide date commitments for those items. With the intensive involvement of Airbus and Intrado Standards Development Organization staff in the NENA development group, this good faith dialog with the State for desired functions would be on an informed basis.”</p>	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Section 9	Issue resolved. SLA document updated with acceptable language.
33	End-of-life (EOL) Routing Components	MCP recommends that the second to last sentence be updated to read as follows:	CenturyLink NG9-1-1 with Managed 9-1-1 CPE	Issue partially resolved.



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
		“CENTURYLINK and Intrado will replace any EOL equipment no later than 90 days prior to the End of Service date.”	Service Level Agreements, Section 10	Section 10 now states “CenturyLink and West will replace any EOS equipment on or before 15 days of manufacturer end of support date or upon a mutually agreed date.”
34	Penetration Testing	MCP recommends that a new SLA be inserted to include an annual penetration test at multiple points across the network to include, but not limited to, LNGs, Emergency Call Management Centers (ECMCs), CenturyLink data centers, and PSAPs.	CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, Proposed new section	Issue unresolved. The Program is satisfied with it being offered as an additional service.
35	Text-to-9-1-1 Interface	MCP recommends that both SOWs state that the solution provides for an integrated text-to-9-1-1 feature for when the services include text-to-9-1-1 service.	Hosted VIPER SOW and Hosted VESTA SOW	Issue unresolved.
36	A9-1-1 GIS Software	MCP is unable to identify services agreement documentation for “A9-1-1 GIS Software”. MCP recommends the Program request clarification from CenturyLink on what A9-1-1 GIS Software services are included in the offering.	Hosted VESTA SOW, Section 2.1.6.1	Issue resolved. VESTA SOW updated.
37	Call Flow	Step #1 references “Call Flow 1.” MCP recommends removing the number from this reference unless there are additional call flows to be included in the document.	Routing Service Guide v3, Section 4.1	Issue resolved. Routing Service Guide has been updated.
38	Emergency Services Routing Protocol (ESRP) reference	MCP recommends that the term “ESRP” be removed from the Figure 1 diagram since i3 routing is not included in the solution.	Routing Service Guide v3, Figure 1	Issue resolved. NENA i3 services are included in the offering.



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
39	A9-1-1 Routing Points of Interconnections (POIs)	MCP recommends the Program require CenturyLink to provide a commitment for when all 9-1-1 traffic will be established by each end office so that all traffic bypasses the legacy selective router (LSR) and when the LSR will be decommissioned.	Routing Service Guide v3, Section 4.3	Issue unresolved. The Program is satisfied with CenturyLink's explanation.
40	Legacy Service Fees	MCP recommends the Program require CenturyLink to make a services agreement commitment that legacy selective routing/ALI and centralized automatic message accounting (CAMA) fees will not be charged once the PSAP is live with the Managed Services solution. The following statement indicates that this is a risk: "CUSTOMER will be responsible for any TSP charges related to TSP presenting the 9-1-1 call (voice and ANI)	Routing Service Guide v3, Section 4.3	Issue resolved. Routing Service Guide has been updated with language that satisfies the issue.
41	LSR Transfer Costs	MCP recommends the Program require CenturyLink to make a services agreement commitment that the Managed Services will provide for LSR connectivity and call transfers over that connectivity at no additional fee. The following statement indicates that this is a risk: "Customer will also be responsible for any charges from other 9-1-1 service providers related to 9-1-1 call transfer to PSAPs on foreign SRs, or any other services outside	Routing Service Guide v3, Section 4.3	Issue resolved. Routing Service Guide has been updated with language that satisfies the issue.
42	Secondary PSAPs	MCP recommends that each services agreement entity (9-1-1 system) include all secondary PSAPs in their service agreement that require automatic number identification (ANI)/ALI and voice delivery.	Routing Service Guide v3, Section 4.4	Issue resolved. Routing Service Guide has been updated with language that satisfies the issue.



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
		<p>The following statement indicates that secondary PSAPs are at risk of receiving services unless included in the MSA:</p> <p>“The Service assumed that all transfers to secondary PSAPs are currently, and will continue to be, conducted via PSTN without ANI or ALI. Inclusion of secondary PSAPs onto Service (which would enable full ANI and ALI transfer to them) is out of scope and subject to change order unless specially listed in the A9-1-1 Service Order.”</p>		
43	PSAP Trunks	<p>MCP recommends that the following bullet and sub-bullets be removed from the document as they are not applicable with Session Initiation Protocol (SIP)-based call delivery:</p> <p>“ ▪ PSAP Trunks (PGM/CAMA):</p> <ul style="list-style-type: none"> ○ Numbering Plan Digit (“<u>NPD</u>”) assignment (if appropriate) ○ Trunk assignments by call type (wireline, wireless, VoIP, or any combination) ○ Add or delete trunk members” 	Routing Service Guide v3, Section 4.5	<p>Issue resolved.</p> <p>Routing Service Guide has been updated.</p>
44	PSAP Abandonment	<p>There are two questions: Does the PSAP call the Intrado Emergency Call Relay Center (ECRC) or the CenturyLink NOC for these services? If it is the CenturyLink NOC, then is the 15 minutes still applicable?</p> <p>Referenced statement:</p>	Routing Service Guide v3, Section 4.6	<p>Issue resolved.</p> <p>Routing Service Guide has been updated with language that satisfies the issue.</p>



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
		“For PSAP abandonment, CUSTOMER may contact the Intrado Emergency Call Relay Center (“ <u>ECRC</u> ”) to engage the configured PSAP Abandonment Rules. The Intrado ECRC will engage the PSAP Abandonment Rules within 15 minutes of receiving a PSAP abandonment request.”		
45	9-1-1 NET	MCP is of the understanding that 911 NET is applicable to the Location Data Management Services and NOT the Routing Service. As such, MCP recommends that the reference to 9-1-1 NET training be removed from the document, unless it is applicable to the Routing Service.	Routing Service Guide v3, Section 4.6	Issue resolved. Routing Service Guide has been updated.
46	General – Scope of Services	MCP recommends that the document be scaled down to the scope of services being provided and referenced in the MSA as an official exhibit to the services agreement.	CenturyLink AZ NG9-1-1 Managed Services Technical Document	Issue resolved. The Managed Services Technical Document is included in the MSA and details the services being provided under the MSA.
47	General – Addresses of Critical Infrastructure	MCP recommends that all addresses of critical infrastructure, such as central offices and data centers, be removed from any service agreement documentation that has the potential for becoming publicly available.	All applicable documents	Issue resolved. Addresses removed in the Managed Services Technical Document Service Exhibit.
48	Service Offering	In review of all service agreement documentation, MCP discovered an extreme reduction of services offered in the 2015 service agreement documentation as compared to what was agreed to in 2014. The reduction of services comes with no reduction in fees.	All applicable documents	Issue resolved. The MSA has been updated to reflect the inclusion of i3 call routing. Additionally, the Managed Services Technical



#	Topic Area	Commentary	Reference	Resolution and/or Final Recommendation
		For illustrative purposes, Table 3 provides a summary of the variance from the 2014 scope of services to the proposed 2015 services.		Document is included in the MSA as a Service Exhibit.
49	Reroute Traffic	MCP recommends the section be updated to include a typical timeframe in which a reroute to a redundant path occurs.	CenturyLink AZ NG9-1-1 Managed Services Technical Document, Section 8.1.1	Issue unresolved.
50	Planned Events	MCP recommends a rewrite to the second sentence. It currently reads: "A notification of the upcoming event will be sent by CENTURYLINK Program Manager to PSAP and/or PSAP at least 10 business days in advance of the scheduled change."	CenturyLink AZ NG9-1-1 Managed Services Technical Document, Section 8.3.4, second sentence	Issue resolved. Managed Services Technical Document has been updated with language that satisfies this issue.
51	Cabling	MCP recommends that specificity be provided regarding who determines if cabling is required and the criteria for determining if cabling is required.	CenturyLink AZ NG9-1-1 Managed Services Technical Document, Section 13.6, first sentence	Issue resolved. Managed Services Technical Document has been updated with language that satisfies this issue.
52	Recording	There is one question: Is an IP Cloud Recording Service available at this time? MCP recommends that the time reference be updated to January 2016 if such a solution is not yet available.	CenturyLink AZ NG9-1-1 Managed Services Technical Document, Section 15.3	Issue resolved. Managed Services Technical Document has been updated with language that satisfies this issue.
53	Cassidian/Airbus and Intrado/West Safety Services	MCP recommends that the document be updated for all references of Cassidian to Airbus. Additionally, MCP recommends updating all Intrado references to West Safety Services or simply West.	CenturyLink AZ NG9-1-1 Managed Services Technical Document	Issue resolved. All documentation has been updated appropriately.



3. RECOMMENDATIONS

MCP’s initial documentation review in November 2015 found an extreme reduction of services offered in the 2015 service agreement documentation as compared to what was agreed to in 2014. For illustrative purposes, MCP identified the following contrasting variances to the 2014 scope of services to the proposed 2015 services.

Table 3: Comparison of Managed Services Offerings

2014 CenturyLink Managed Services Offering	2015 CenturyLink Managed Services Offering
Emergency Services IP network (ESInet)	ESInet
IPSR	IPSR
ALI Data Management	ALI Data Management
Hosted VIPER or VESTA	Hosted VIPER or VESTA
i3 Routing	<i>i3 Routing*</i>
Policy Routing Rules	<i>Policy Routing Rules*</i>
MapSAG GIS Data Maintenance Tool	<i>MapSAG GIS Data Maintenance Tool*</i>
i3 Event Logging	<i>i3 Event Logging*</i>
A9-1-1 GIS Data Management	<i>A9-1-1 GIS Data Management*</i>
A9-1-1 Computer Aided Dispatch (CAD) Integration	<i>A9-1-1 CAD Integration*</i>
<i>*These services were added back to the service agreement as a result of discussions with Centurylink, the State and Mission Critical in the fourth quarter of 2015 and first quarter of 2016.</i>	

As noted in Table 3, the discrepancies between the two solution offerings from CenturyLink were resolved through updates made to the final Master Services Agreement. MCP believes that the services agreement documentation now includes the critically important i3 services and this is no longer an issue.

MCP believes that the issue outlined in Topic Area #22 (Anti-virus) is critical to the Program moving forward. Topic Area #22 is the timeframe in which anti-virus updates are made to PSAP workstations. MCP believes that a 30-day timeframe is too long and puts the PSAP and network at risk of exposure to potentially service-impacting viruses. Solutions exist in the industry and MCP recommends that the Program continue to work with CenturyLink for a non-labor intensive, technical solution that reduces this timeframe to five days or less.

4. CONCLUSION

The State of Arizona 9-1-1 Program has successfully developed and negotiated an NG9-1-1 Managed Services solution with CenturyLink that provides call handling options to PSAPs, enables a transition to NG9-1-1, and works within the Program’s budget. A single critical, yet manageable, issue remains unresolved. The successful resolution of the remaining critical issue will enable the State’s PSAPs to move forward confidently with an NG9-1-1 solution that will remain current with industry standards for the duration of services agreement term.