Request for Proposal

For Will County 9-1-1 Emergency Telephone System

An IP-Based NG9-1-1 Call Handling System and Selected Options

October 13, 2020

The purpose of this document is to provide interested parties with information to enable them to prepare and submit a sealed Proposal for the replacement of the existing E9-1-1 System at three Will County 9-1-1 Emergency Telephone System member PSAPs.

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1 PROJECT DESCRIPTION

Will County 9-1-1 Emergency Telephone System, hereinafter referred to as "WC9-1-1", is seeking a qualified and experienced vendor to provide an IP based NG9-1-1 Telephone System in a multi-node, geo-diverse design configuration, hereafter referred to as the "system", to replace the existing telephone system. The new system will be used to answer, process, and direct all calls placed to 9-1-1 within the geographic boundary of WC9-1-1's three PSAPs or other 10-digit administrative line calls.

The new system must position WC9-1-1 so that any additional system replacement or upgrades will not be required at any time along the migration path to true NG9-1-1, as described by NENA. The new system must use TCP/IP and related networking technology to support a fully NG9-1-1-ready PSAP solution. The new IP based system must accept traditional E9-1-1 calls (wireline, wireless and fixed VoIP) delivered on legacy CAMA circuits as well as Next Generation IP traffic across the Network using NENA i3 standard SIP. The System must accept NENA i3 VoIP calls natively. If IP-based signaling is provided by a standards-based IP network, IP-to-Analog gateway adapters will not be accepted. WC9-1-1 anticipates that a state-level ESInet (Emergency Services IP (Internet Protocol) Network) will be implemented in the future that will interconnect regional ESInets and individual PSAPs. System considerations should be made by the vendor to account for this future need.

General Overview / Summary

Replacement of the telephone system must be a coordinated effort with other vendors. Planning and design may begin upon issue of a purchase order and must be completed in conjunction with WC9-1-1.

Project Objectives

1. WC9-1-1 recognizes the need for a robust NG9-1-1 ready system, capable of accepting emergency calls for service, regardless of the network of origin (at a minimum to include Public Switched Telephone Network (PSTN), Voice over Internet Protocol (VoIP), and Text-to-911), in an accurate and efficient manner.

2. WC9-1-1 desires to purchase and implement a system to meet the current and future needs of the citizens of Will County. Enhanced call taker capability, remote diagnostics, interoperability and functionality with WC9-1-1's existing CAD and other systems, and a system architecture designed to accept future types of calls are equally important objectives of this project.

3. The requirements of this RFP focus on supporting a complete Customer Premise Equipment (CPE) installation utilizing NG9-1-1 industry standards and recommendations for interconnection.

4. This document provides the minimum requirements for the system, workstation options, and NG9-1-1 network interfaces. This document is not intended to provide details that will focus vendors' proposed solution toward any particular method or technology. Vendors shall provide their products and solution(s) configured in a manner consistent with the latest NG9-1-1 recommendations of the Association of Public Safety Communications Officials (APCO) and the National Emergency Number Association (NENA).

Acronyms and Definitions

The following definitions may be used throughout this document:

1. **ALI**: Automatic Location Identification.
2. **ANI**: Automatic Number Identification.
3. **Backup PSAP/Host site(s):** Location or PSAP that may be identified as a call roll- over or fail-over destination.
4. **CAMA:** Centralized Automated Message Accounting.
5. **CO:** Central Office (referring to the telephone company/Local Exchange Carrier).
6. **CPE:** Customer Premise Equipment.
7. **CPN**: Calling Party Number.
8. **E9-1-1 System:** The proposed solution that will be responsible for the delivery of ANI, ALI and other pertinent emergency information to the Primary PSAP.
9. **ESINet**: Emergency Services IP Network. A managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies.
10. **ETSB:** Will County Emergency Telephone System Board.
11. **GUI:** Graphical User Interface.
12. **IP Capable**: The proposed system must able to accept traditional E9-1-1 calls (wireline, wireless and fixed VoIP) delivered on IP networks via i3 standard SIP signaling as delivered with no additional hardware or software required. IP to Analog gateway adapters will not be accepted.
13. **IRR:** Instant Recall Recorder.
14. **ISDN:** Integrated Services Digital Network.
15. **LEC:** Local Exchange Carrier
16. **Data Center:** a repository that houses computing facilities like servers, routers, switches and firewalls.
17. **NCAS:** Non Call-Path Associated Signaling: A method for delivery of wireless 9-1-1 calls in which the Mobile Directory Number and other call associated data are passed from the Mobile Switching Center to the PSAP outside the voice path.
18. **NGCS:** NG9-1-1 / Next Generation Core Services.
19. **Primary PSAP**: A location where 9-1-1 calls are initially answered, and radio dispatch operations occur.
20. **PBX:** Private Branch Exchange.
21. **PRI:** Primary Rate Interface used to deliver administrative calls to a PSAP via a digital circuit.
22. **PSTN:** Public Switched Telephone Network.
23. **SIP:** Session Initiation Protocol.
24. **TCP/IP:** Transmission Control Protocol / Internet Protocol.

25. **User:** PSAP coordinator, PSAP user or staff.
26. **Vendor:** A firm submitting a proposal and bid in response to this RFP.
27. **VOIP:** Voice over Internet Protocol.
28. **WC9-1-1**: Will County 9-1-1

2 PROCUREMENT AND CONTRACTING

This Request for Proposal (RFP) is being issued by Will County 9-1-1 Emergency Telephone System (WC9-1-1) under the authority of the Will County Emergency Telephone System Board (ETSB) pursuant to the following applicable authorities:

- ETSB Purchasing Policy #107 as revised on August 12, 2020
- Illinois Emergency Telephone System Act (50 ILCS 750)
- Will County Purchasing Ordinance #08-461

The procurement point of contact is:

Dale Murray, Operations Manager
Will County 9-1-1 Emergency Telephone System
16911 W Laraway Rd, STE 102
Joliet, IL 60433
Office: 815-725-9409
Email: dmurray@willcounty9-1-1.com

3 CALENDAR OF EVENTS

DATE	EVENT
October 13, 2020	**Date of issue** of the RFP
October 29, 2020	**Mandatory Pre-Bid Conference** at 1:00 PM CST
November 6, 2020	**Last day for submitting written inquiries** at 4:00 PM CST
November 10, 2020	**Mail responses** to vendor questions
December 1, 2020	**Proposals due** from vendors at 4:00 PM CST
December 2, 2020	**Proposals opened** at 9:00 AM CST
December 7, 2020	**Present to joint meeting of ETSB** Finance & Equipment Standards and Technology Committees for Consideration & Opening of Cost Documents.
December 10, 2020	**ETSB Meeting to select and approve vendor** (Tentative Date)
December 11, 2020	**Formal notification of vendor selection sent** to selected vendor (Tentative Date)
January 4, 2021	**Contract start** date (Estimate)

4 PRE-BID CONFERENCE

A Mandatory Pre-Bid Conference will be held on the date and time listed in the Calendar of Events for "Mandatory Pre-Bid Conference" at the WC9-1-1 administrative office, 16911 W. Laraway Road, Joliet, IL 60433.

All interested vendors must attend the Pre-Bid Conference, either in person or virtually in real-time through use of a video teleconferencing provided by WC9-1-1 for such purpose. Subsequent bid-related communications, including but not limited to addenda and written answers to questions will only be provided to the vendors who attend the Mandatory Pre-Bid Conference.

Any bid submitted by a vendor not represented at the Mandatory Pre-Bid Conference will be rejected without notice or review.

5 PROPOSAL INSTRUCTIONS

5.1 GENERAL INSTRUCTIONS

1. Vendors must submit one signed, printed original and one digital copy of all materials required for acceptance of their Proposal on or before the date and time listed in the Calendar of Events for "Proposals due from vendors" to the RFP point of contact.

2. Vendors must submit one signed, printed original of any Addenda issued with this RFP on or before the date and time listed in the Calendar of Events for "Proposals due from vendors" to the RFP point of contact.

3. The original copy of the Proposal shall be typed and submitted on 8.5 by 11 inch paper. The digital copy (such as compact disc (CD) or USB thumb drive) shall be sent and include one copy in Microsoft Word format and one copy in Adobe Acrobat PDF format.

4. All Proposal packages shall be clearly marked "IP Based NG9-1-1 Call Handling System" followed by "Request for Proposal" followed by the name of the vendor, their complete address, telephone number and the name of the contact person displayed on the outside. The Proposal package must be sealed. **The Pricing Document (Attachment A) shall be included in a separately sealed envelope and labeled as "Pricing Document".**

5. Proposals may be withdrawn, modified and resubmitted by the vendor prior to the Proposal due date.

6. Any questions concerning this RFP must be submitted in writing by mail or email on or before the date and time listed in the Calendar of Events for "Last day for submitting written inquiries" to the procurement point of contact. A written email response will be sent to all such requests.

7. If clarifications to this RFP are required, it will be done in the form of an Addendum.

8. Any Addenda issued to the RFP will be sent electronically to the email address listed on the Pre-Bid sign in sheet for each vendor. It is the vendor's responsibility to verify with the RFP point of contact if any Addenda have been issued.

9. All sealed Proposals will be opened on the date and time specified in the Calendar of Events for "Proposals opened" at the Will County 9-1-1 administrative office. Vendors and the general public are invited to attend the opening. No decision will be made as to the award of the RFP at that time.

10. Proposals will be evaluated based on the defined criteria and will include review by the 9-1-1 Administrative Staff as well as the Emergency Telephone System Board. Once the technical evaluations have been completed, the pricing documents will be opened and considered.

11. Proposals not received by the stated date and time listed in the Calendar of Events for "Proposals due from vendors" will not be considered and will be returned to the vendor.

12. Unsealed Proposals will not be considered and will be returned to the vendor.

13. Emailed or faxed Proposals will not be considered and will be returned to the vendor.

14. Unsigned Proposals will be considered non-responsive.

15. Unsigned Addenda, if any, will be considered non-responsive.

5.2 Formatting Instructions

Vendors are urged to use this document as the basis for all responses. An Adobe Acrobat PDF version and Microsoft Word version of this document is available upon request.

Proposals must be organized with the following headings. Each heading shall be separated by tabs or otherwise clearly marked. Proposals shall be organized and presented in the order as specified below:

1. Introduction
2. Company history
3. Description of staff/support personnel
4. RFP Response (include this entire document as a template and insert Vendor responses in each section)

5.3 Response Instructions

Each numbered section in the RFP must be answered by the vendor with one of the following responses or the Proposal will be considered non-responsive:

1. Read and Understood – Response to a numbered item in the RFP that does not require an answer to a requirement.
2. Comply – The proposed system will meet this requirement as it currently exists. Provide with description.
3. Complies with Alternative – The proposed system will meet this requirement through an alternative solution. The alternative solution must be fully explained.
4. Complies with Exception – The proposed system will meet only part of this requirement. The exception must be fully explained.
5. Does not Comply – The proposed system will not comply with this requirement.

5.4 Reasonable Accommodation

WC9-1-1 will provide reasonable accommodations, including the provision of informational material in limited alternative formats, for qualified individuals with disabilities upon request. If you need accommodations at a Proposal opening/vendor conference, contact the procurement point of contact.

5.5 On-Site Visit

It is strongly advised that all vendors make a site visit during the time period between the release of this RFP and final date for written questions to review the existing equipment for technical compatibility. All site visits must be coordinated through the RFP point of contact.

5.6 Proprietary Information

All restrictions on the use of data contained within the Proposal and all proprietary information must be clearly labeled as “PROPRIETARY INFORMATION” and shall be so indicated with the notation in bold letters at the top and bottom of the page. Proprietary information submitted in a Proposal, or in response to the RFP, will be

handled in accordance with applicable laws and statutes of the State of Illinois. A blanket statement that the entire contents or a major portion of the RFP response is propriety or confidential will not be honored.

5.7 Obligation to Purchase

WC9-1-1 incurs no obligation to purchase by extending this RFP. WC911 is also not liable for any cost incurred by vendors in replying to this RFP.

5.8 Patents

If a vendor's solution violates any United States patents, you must outline these in your response. WC9-1-1 shall not be held responsible should the successful vendor's solution infringe on any existing or awarded patents from other companies and/or entities. Legal costs and liability, if any, are to be borne by the party submitting the RFP.

6 PROPOSAL EVALUATION PROCESS

6.1 GENERAL REQUIREMENTS EVALUATION

The Proposals will be reviewed by the General Requirements Evaluation Committee to determine how well each vendor's Proposal compares to the stated General Requirements. This committee may include administrative, technical, legal, and financial representatives as selected by WC9-1-1. WC9-1-1 may request further clarification from individual vendors in the event of incomplete or missing information. Vendors shall respond in writing to any requests for clarification. In the event that all vendors do not meet one or more of the General Requirements, WC9-1-1 reserves the right to continue the evaluation of the Proposals and may select the Proposal which most closely meets the requirements specified in this RFP. Failure to meet any of the General Requirements may result in the Proposal being considered non-responsive.

Proposal selection will generally be based on a qualifications-based selection procedure. The following evaluation criteria will be used to evaluate proposals. The evaluation criteria listed are not necessarily listed in order of importance.

1. Adequacy and completeness of the proposal with regard to the information provided to address system suitability for WC9-1-1.

2. Ability to work with and advise the users as a team to best represent the interests of the citizens of Will County and to obtain quality services and products at a reasonable price.

3. Qualifications.

4. Ability to meet timeline.

Proposer will be evaluated on the adequacy and suitability of its systems with respect to the following factors:

1. Does the system meet all the functional needs of the WC9-1-1 PSAPs?
2. Does the vendor provide a system that will be easy to use?
3. Does the vendor provide a system that will be easy to learn?
4. Is the specified computer hardware suitable and sufficient?
5. Will the computer hardware be expandable in the future?
6. Will the system be maintainable?
7. Is the hardware platform familiar to the WC9-1-1 technical personnel?
8. Does the vendor propose a system that can provides connectivity to surrounding counties E-9-1-1, state and federal systems?
9. Proposers are encouraged to offer system options that they believe will enhance the usability of the system for WC9-1-1.

The price will be specifically evaluated on the following points:

1. What is the initial cost of the system?
2. What, if any, additional equipment will WC9-1-1 have to buy?
3. What, if any, additional services will WC9-1-1 have to buy?

4. What is the annual cost for support, maintenance, and updates?
5. What is the vendor's commitment to support pricing after the first year?
6. Are all updates to the software included in the support program or will there be additional cost? If so, what are the update costs?
7. Is the software sold as a site license or will WC9-1-1 have to buy additional user licenses every time a user or user workstation is added to the system? If so, what are the costs?
8. Will any additional training of WC9-1-1 technical personnel be required?
9. What is the internal cost of migrating to the selected system?
10. What is the expected cost of WC9-1-1 IT resources required for ongoing support of the system?
11. What will be the internal cost of training of existing personnel on the proposed system?
12. What will be the internal cost of ongoing training of new personnel?
13. What is the vendor's reputation among its customer base with respect to long term costs?
14. What life cycle does the vendor recommend for overall system replacement?

Qualifications, Experience, and General Vendor Requirements

6.2 Technical Requirements Evaluation

Proposals will be reviewed by the Technical Review Committee to determine how well each vendor's Proposal compares to the stated Technical Requirements. The committee may include administrative, dispatch and technical representatives as selected by WC9-1-1. WC9-1-1 may request further clarification from individual vendors in the event of incomplete or missing information. Vendors shall respond in writing to any requests for clarification. The committee may verify references, request oral presentations, conduct on-site visits and use the results of these actions in preparing a recommendation. In the event that all vendors do not meet one or more of the Technical Requirements, WC9-1-1 reserves the right to continue the evaluation of the Proposals and may select the Proposal which most closely meets the requirements specified in this RFP.

6.3 Pricing Evaluation

Proposals will have the Attachment A Pricing Document reviewed by the Pricing Evaluation Committee for completeness and accuracy. This committee may include administrative and financial representatives as selected by WC9-1-1. Failure to use the Attachment A Pricing Document may result in the Proposal being considered non-responsive.

7 AWARD PROCESS AND CONTRACT NEGOTIATION

The award is expected to be granted to the responsible vendor taking into consideration the qualities of the solution proposed to be supplied, the solution's conformity with specifications, the purposes for which required, the terms of delivery, transportation charges, the dates of delivery, and overall solution price.

1. WC9-1-1 may accept the Proposal that is, in the sole judgment of WC9-1-1, most responsible, even though it may not be the lowest priced Proposal.
2. WC9-1-1 reserves the right to reject any/or all Proposals if the price is deemed excessive or the quality of the product inferior.
3. WC9-1-1 may deem a Proposal non-responsive that is incomplete.
4. WC9-1-1 may deem a Proposal non-responsive that does not demonstrate the vendor's ability to provide the required services.
5. WC9-1-1 reserves the right to waive minor irregularities in Proposals received.
6. WC9-1-1 reserves the right to purchase more or less of each item or service at the unit price offered in the vendor's Proposal unless the vendor specifically and explicitly limits the response in this regard.

If at any time after the award, the awarded Vendor notifies WC9-1-1 in writing that the Vendor will no longer comply with the terms of the award, WC9-1-1 may terminate the award to the defaulting Vendor and make an award to the second most responsible Vendor.

8 GENERAL REQUIREMENTS

8.1 QUALIFICATIONS AND EXPERIENCE

1. Must be a manufacturer, factory authorized distributor or reseller of NENA-compliant NG9-1-1 Systems and associated products being proposed.
2. Must have the capability to provide the services described within this RFP proven through manufacturer agreements, technical certifications, qualified engineering, installation and maintenance resource capacity and capability, past similar installations, and current customer references.
3. Must have local distribution and equipment depot(s) capable of providing access to adequate spare parts, materials and testing equipment needed to maintain the System within the response time specified in this RFP.
4. Must have a successful history in providing the solution as proposed, including services and support to similar governmental entities.
5. Must be able to show installed, working NG9-1-1 Systems in the field of the same design to be proposed.
6. Must be licensed to do business in the State of Illinois.
7. Must provide a minimum of one System diagram detailing the proposed System connectivity and major components.

8.2 BUSINESS HISTORY

1. Business history that demonstrates the ability to provide software support, engineering, installation and maintenance services through the life of the contract.

8.3 RFP RESPONSE

1. Must show clear documentation of equipment, services and prices offered.
2. The manufacturer of the system must confirm that the proposed system design and configuration, as proposed in this document, has been reviewed and approved in writing by the manufacturer solution engineering and support teams.

8.4 VENDOR REFERENCES

1. Vendors must include in their response a list of at least three (3) organizations, including points of contact (name, address, and telephone number), which can be used as references for installed systems of similar design to the system described in this RFP.
2. These organizations will be contacted to determine the quality of work performed and personnel assigned to the project. The results of the references will be provided to the evaluation team. Incorrect contact information will invalidate the reference.

9 CURRENT SYSTEM INFORMATION

The current e9-1-1 telephone system utilized by WC9-1-1 is an Intrado Safety Systems Viper 9-1-1 telephone system. AT&T is the LEC (Local Exchange Carrier).

Population Served

As of 2019, Will County's population was approximately 690,743.

Positions

The following table outlines the current number of positions supported by the current

system, as well as the number expected to be supported by a Bidder's proposed solution.

Positions/Requirement	Current Number Supported	Number to be Supported by New System
Call Taker / Telecommunicator Workstations (includes current remote site (Joliet)	56	56

Calls into phone system

Approximately 1,208,227 telephone calls were received by WC9-1-1 PSAPs in 2019, as follows:

Type of Call	Number
9-1-1 Calls	314,696
7 or 10-digit Administrative calls	893,531

CAD System

WC9-1-1 currently utilizes Motorola Solutions / PremierOne CAD, version 4.4.CU3c

Radio Console System

WC9-1-1 currently utilizes Motorola MCC7500 Radio consoles at each of its 3 existing PSAPs.

Voice Recording System

WC9-1-1 currently utilizes Nice NRX recording system at each of the 3 PSAPs.

10 PROPOSED SYSTEM INFORMATION

WC9-1-1 desires the new system to be an IP based NG9-1-1 Telephone System in a Multi- node, geo-diverse design configuration. One node will be housed in the WC9-1-1 Primary Data Center located in the Wescom PSAP in Plainfield IL and one node will be housed in the WC9-1-1 Secondary Data Center located in the Laraway PSAP in Joliet, IL. A remote node will be housed at the Joliet PSAP in Joliet and will service Joliet PSAP.

WC9-1-1 desires a system that:

1. Will receive, process, answer and direct all 911, Text to 911 and administrative calls to the correct call taker position regardless of PSAP login location in a native SIP format. (Follow me settings)
2. Meets current NENA NG9-1-1 standards and requirements.
3. Incorporates the latest NENA and APCO "Next Generation E9-1-1" recommendations.
4. Is capable of meeting or will meet future NENA NG9-1-1 standards and requirements as they become available during the life of the system.
5. Integrates the Network Reliability and Interoperability Council (NRIC) "Best Practices".
6. Accommodates future IP technologies such as instant messaging, video, teleconferencing, and other such technologies or applications as they are made available and become part of standards.
7. Can be expanded by simply adding additional software and hardware. Systems that require the replacement of components in order to accommodate reasonable expansion will not be favorably viewed.
8. Does not necessitate a manual switchover to a back-up PSAP. Calls may be automatically re-routed during system failures or to accommodate call overflow and spikes in call volume.
9. Does not require proprietary hardware. With the goal of lower overall infrastructure costs, a system that uses commonly available equipment is desired.
10. Transfers ANI and ALI information to the Motorola PremierOne CAD system for incident management and display on the map.
11. Integrates with the existing Nice NRX Voice Recording System.
12. Integrates call control of the 9-1-1 workstation into the Motorola Premier One CAD client.
13. Will allow manual input of telephone numbers in case of ANI failure in order to receive ALI display.
14. Will provide the fastest possible transfer of emergency calls to other agencies.
15. Integrates into the existing headset configuration utilized by WC9-1-1. Single headsets at each workstation shall be used for telephone and radio audio without the requirement for manual switching between the two sources.
16. Will not disable more than 50% of the telephone positions or workstations in the event of a system component failure.
17. Immediately capable of receiving native SIP/MSRP Text-to-911 delivery with proven, live reference sites. Vendor shall identify a minimum of 3 reference sites with live Text-to-911 delivery. Vendor shall identify the Text Control Centers (TCCs) that their proposed system has been certified to work with for SIP/MSRP connections.

18. Offers a combined multi-media communications window, contained within the call taker GUI, so that as 9-1-1 evolves, new types of multi-media can readily be accepted to our PSAPs. WC9-1-1 intends to accept all types of multi-media sessions natively, when they are capable of being delivered. Anticipated multi- media communications include, but are not limited to, the following: Text -to-911, Text-from-911, TDD/TTY, DTMF tone detection, etc. The call taker user interface shall provide a common window which clearly identifies all multi-media types in progress and their current status. Call takers shall be able to multi-task between multi-media sessions and voice calls and shall be able to receive and read all subsequent multi-media messages while their attention is focused on handling simultaneous voice calls. Vendor shall describe how their proposed System supports multi-media types today and how call takers can multi- task between multi-media sessions and voice calls at the same time.
19. Works in an offline mode if connect to both nodes are lost.
20. Leverages the current CPE reporting tools of eCATS.
21. Has integration with the RapidSOS application.
22. Allows for system alerts to be sent out via text of email to notify WC9-1-1 technical staff of possible system issues.
23. Accepts PRI, SIP or analog lines for Administrative lines.
24. Accepts SIP or analog lines for 9-1-1 trunks.
25. Integrates into a “Busy Light” indicator system.
26. Allows for position-based voice playback and call history lookup.
27. Has the ability to assign lines or line groups to positions, call taker groups and/or both.
28. Allows playback position recordings via call takers headset to a caller on a phone line.
29. Has the ability to create call taker roles for specific line groups.
30. Has the ability to create ring groups for specific lines or trunks and assign alternate groups to them.
31. Has the ability to allow for PSAP-specific dialing rules.

11 TECHNICAL REQUIREMENTS – SITE EQUIPMENT

11.1 SYSTEM DESIGN

1. System shall be IP-based and shall comply with all current NENA standards. For this purpose, IP-based means that the design of the System is such that the primary processing of voice communications is accomplished within an IP-based architecture. Hybrid Time-division Multiplexing (TDM) systems that have IP capability are not acceptable solutions for this project.

2. System must have the ability to accept traditional E9-1-1 calls (wireline, wireless and VoIP) delivered on legacy CAMA circuits as well as Next Generation IP traffic on a Network using NENA i3 standard SIP signaling with no additional hardware or software required. If IP-based signaling is provided by a standards-based IP network, IP to Analog gateway adapters are not acceptable for this project. The System must accept NENA i3 VoIP calls natively. If required in this Proposal, describe the protocol and specifications used for external IP network connectivity.

3. The system shall comply with all current NENA protocols and standards.

4. Vendors will describe their plan to migrate the proposed system to accept NG9-1-1 as the standards for such requests are developed and WC9-1-1 transitions to full i3 capability, as descripted in the current NENA standards.

5. The system shall provide the capability to connect, when available, to a single standard NENA i3 NGCS connection to the ESInet per PSAP to support NG9-1-1, i3 core functions and capabilities.

6. The system shall be Wireless Phase I and II compatible and must be compatible with ten-digit ANI delivery and non-call associated signaling (NCAS) wireless ALI solutions.

7. All vital system modules shall be protected to ensure there is no single point of failure. Please describe in detail how the proposed system incorporates redundancy to meet the requirement.

8. Under no circumstance shall a failure in any system component disable more than 50% of the Intelligent Workstations and/or IP phones at any site.

9. The system shall operate in such a fashion so that a failure of any vital system modules will result in switchover to the redundant module.

10. Please state the general expansion capability of the system describing the overall system capacities with the hardware proposed, including the number of incoming 9-1-1 trunks, the number of answering positions, the number of telephone lines, and interfaces that may be installed.

11. Vendor shall describe the protocol and specifications used for external IP network connectivity.

12. System shall support Layer 3 network connectivity.

13. System's VoIP call control must be owned and controlled by the System's manufacturer and shall be based on SIP Protocol. Systems which use a third-party soft switch for VoIP call control is not acceptable. The System shall be specifically designed for 9-1-1 and shall not permit calls to be "hung", "lost", nor use "keep alive" signaling for call recovery.

14. System shall use Transmission Control Protocol / Internet Protocol (TCP/IP) network connectivity and client/server network design. Calls shall be transported as VoIP between the Central Equipment and Workstation positions. The System must support the Presence Information Data Format-Location Object (PIDF-LO) protocol for the delivery of location information within SIP.

15. System shall provide Call Detail Records (CDR) for all calls including VoIP calls, and store all available information pertaining to each 9-1-1 call on the application / telephony server and be accessible to the system Management Information System (MIS) for administrative reporting.

16. System must be able to provide all related PSAP call taking statics to the WC9-1-1 owned eCATS reporting service.

Automatic Call Distribution (ACD)

1. System shall include a robust, feature-rich ACD queuing algorithm system for voice 9-1-1, Text-to-911, and administrative calls with, at a minimum, the features described below.

    a. Priority

    b. Longest Idle

    c. Ring All

    d. Ring All with Conference (rings all call taker positions, as each call taker answers they are joined into the conference)

    e. Round Robin

2. System shall support skills-based call routing and priority-based queuing to direct calls to available call takers with specific skills. Skills must be assignable based on the individual user or a group of users. For example, assignments should support the following:

    a. Skills-based on user login

    b. Skills-based on a group of users that have the same responsibilities.

3. The ACD system shall provide the ability for an agent to change their state to and from ready and not ready to receive an ACD call.

4. System shall support a distinctive ring and visual indicator for each ring group.

5. Call takers must have the ability to bypass the ACD queue at any time and answer another incoming call. This capability shall be based on the call taker's privileges.

6. System must provide the capability for a call taker to view the queue or queues which are assigned to them based on user privileges. System must provide a window that shows this information in a logical fashion. It must be available to a call taker through a toolbar or other menu.

7. System must provide an auto greeting feature to eliminate the repetitive nature of answering incoming calls. Call takers shall have the ability to record a selection of greetings which can be automatically played based on the incoming circuit or call type. Call taker must be able to stop the automatic greeting at any time during a call as well as disable the automatic greeting feature. System shall provide ring back indication to the caller while that caller is in a ringing state, which should not delay call presentation.

    a. Greeting recordings shall be stored centrally, tied to a user's name and role, accessible to all call takers regardless of which workstation they are logged in to.

11.2 Equipment Racking

1. All backroom equipment shall be installed, with direction of the customer, in customer provided 42u rack enclosures.
2. All equipment must be commercially available in off-the-shelf configurations; please describe all exceptions.
3. Appropriate cabling, connectors and all hardware necessary for the installation and maintenance of the equipment shall be provided.

11.3 Network Connectivity to Data Centers and Remote PSAP

1. WC9-1-1 will provide Ethernet connection to Data Centers and Remote Site as required. WC9-1-1 shall provide and manage the necessary router with Ethernet hand-off at all sites as required.
2. The physical connection to the NG9-1-1 System will be electrical Ethernet via RJ45 connectors from the WC9-1-1 provided Layer 3/2 routed network. Vendor shall state all network requirements for this connectivity if required.
3. The vendor is responsible for providing and programming routers if they are required by the vendor's proposed solution for connectivity to the Remote PSAPs from the Primary Data Center and the Secondary. Please describe the mechanism that the solution uses to provide the connectivity.
4. In the event of a network failure to a Remote Primary Data Center or Remote Secondary data Center, the system shall immediately determine that the Remote PSAP is unreachable and begin to deliver all calls destined for the isolated Remote PSAP to a designated backup PSAP. If required, WC9-1-1 will provide the name of the alternate PSAPs to the vendor.
5. Please describe in detail how the system will return to a normal state after connectivity is reestablished between the Remote PSAPs.

11.4 Backup Power

1. All equipment at the Primary and Backup data center site shall be installed to allow connection to the customer-provided site UPS to provide longer-term backup power.

11.5 Interfaces

11.5.1 System Telephone Circuit Interface/ Administrative Trunks

1. The system shall support a 2-wire telephone line interface for loop start administrative circuits.
2. The system shall support Caller ID functionality with name or name and number delivery on all administrative telephone line interfaces.
3. The system shall support basic SIP trunk interface to local administrative PBX's if required.
4. The system shall support SIP Service for administrative lines use, transfers and or abandoned callbacks as needed.

11.5.1a **CAMA Trunks, SIP Interface**

1. The System shall provide legacy TDM support for analog CAMA and T1 lines.

2. The System shall support basic SIP trunk interface to local administrative PBX's if required.

3. The System shall support SIP Service for administrative lines use, transfers and or abandoned callbacks as needed.

4. WC9-1-1 desires to use IP connectivity where possible. It is recognized that complete IP connectivity may not be immediately available. System shall support both external and internal IP connectivity without a hardware upgrade, in all aspects, as soon as IP connectivity is available.

5. The System must provide outgoing NG9-1-1 trunk capabilities so that received 9-1-1 calls can be sent to other PSAPs or 9-1-1 Systems via a CAMA trunk or SIP trunk. The call shall appear as a 9-1-1 call to the receiving PSAP.

11.5.2 ALI Retrieval Interface

1. The ANI / ALI equipment must interface to the ALI database provided by the LEC.

2. ALI modems will be supplied by AT&T to support proposed system.

3. The proposed system shall support dedicated redundant data links to the designated ALI database provider. This may be accomplished by providing at least two output interfaces for transmission and receipt of call data to the ALI database. A request to the ALI database shall be made as soon as call ANI is received.

4. The NG9-1-1 system shall compare the telephone number returned with the ALI to the original ANI sent by the CO, ensuring that caller ALI is matched with ANI.

5. The system shall provide configurable parsing and validation of ALI results.

6. If an ALI failure is returned, or the result fails parsing or validation, the system shall automatically re-submit the request a maximum of one time.

7. The system shall be compatible with eight and ten-digit remote database query methods.

8. The system must also offer the capability of querying a secondary source of location information, such as a wireless handsets GPS provided location.

9. The System shall be capable of providing supplemental ALI information based upon any CPN. Supervisor workstations must be capable of entering supplemental information specific to any CPN. System must provide custom fields available for supplemental ALI notes. Supplemental information shall require supervisor/administrator approval before the note is made visible with an incoming call. Supplemental information shall be configurable with an administrator defined expiration date. Expired information should no longer be presented with an incoming call but kept stored in database for administrative use. Supplemental ALI notes must be available for export and printing. Vendor shall describe how call takers will be made aware of available supplemental ALI information when an incoming call is received.

11.5.3 CAD Interface

1. The system shall provide a minimum of two (2) RS-232 DB-9 female CAD output interfaces at each PSAP site.

2. The system must support variable CAD outputs (in RS-232 format) to support multiple CAD systems interface types as needed.

3. Redundant CAD output capability must exist such that the failure of a vital component at one PSAP/Data Center site will not prevent CAD data from being delivered to all other sites.

11.5.4 System External Clock Interface

1. The system shall be equipped to derive legally traceable time from an external Network Time Protocol (NTP) clock source in order to ensure consistency of timestamps added to event records and reports from all PSAP equipment. WC9-1-1 will provide two Network Time Protocol clock devices.

11.5.5 Long-Term Recorder Interface

1. The proposed solution shall provide audio output connectivity to the WC9-1-1 provided LTR from the CAMA trunk and/or Analog Admin line demarcation point or via IP connection.

11.5.6 Position Based Recording

1. The proposed solution on a per PSAP basis, shall make IP Position Based Recording available to the WC9-1-1 provided LTR.

11.5.7 Map Interface

1. WC9-1-1 prefers the system support a mapping solution integrated with the current Motorola PremierOne CAD System.

12 TECHNICAL REQUIREMENTS - INTELLIGENT WORKSTATION

12.1 PC HARDWARE

1. The Intelligent Workstation shall be equipped with all necessary audio and video interface equipment to include a keyboard, mouse. Speakers and an LCD touch screen flat panel monitor will be provided by WC9-1-1.
2. Please state the requirements for the position workstation hardware.
3. It is desirable to have the option to provide workstation hardware; please describe any restrictions, processes or costs associated with use of customer provided workstations.
4. It is desirable that NG9-1-1 workstations be able to support additional third-party software as necessary; please describe any restrictions, processes or costs associated with installation of third-party software on the workstations.
5. All Intelligent Workstations shall also be capable of using a programmable keypad with 24 keys that will allow the user to perform basic system functions without using the computer keyboard if desired.

12.2 OPERATING SYSTEM

1. Please state the operating system used by the Intelligent Workstation.
2. WC9-1-1 desires the longest possible operating system support window; please state which versions of Microsoft Windows are supported.

12.3 VIRUS PROTECTION

1. All PC workstations in the network shall have virus protection software installed and functioning.

12.4 AUDIO INTERFACES

1. The system shall provide at each position, a network device providing a 6-wire analog audio output with contact closure (sense) for purposes of a radio/telephone headset interface as defined in NENA 04-001.

12.5 RADIO INTEGRATION

1. The Intelligent Workstation shall provide an interface to the radio system. Call takers shall have the ability to use the same headset for both radio and telephone conversations.

12.6 PRINTING CAPABILITIES

1. The Intelligent Workstation shall provide the ability for manual printing of ALI information via a local and/or network printer.

12.7 VISUAL AND AUDIBLE CALL INDICATORS

1. The Intelligent Workstation shall indicate incoming 9-1-1, emergency administrative, SMS, non-emergency administrative calls and abandoned calls by both audible and visual means.

2. The Intelligent Workstation shall have the ability to visually display the status of a call (connected, ringing (inbound/outbound), abandoned, transferred (internally or externally) or on hold) of each 9-1-1, emergency and non-emergency call.

3. If the included Mapping component is used, 9-1-1 calls shall also display on the integrated map display in the same status color format at the ALI location.

4. The proposed system shall support the use of queues or ring groups for 9-1-1, emergency administrative and non-emergency administrative circuits.

12.8 KEYBOARD SHORTCUTS

1. Please state if the Intelligent Workstation can provide for a method of programming keyboard shortcuts that allow the user to perform common call taking functions with a single keyboard or keypad keystroke.

2. Please list all shortcuts supported.

12.9 COMMAND LINE

1. The Intelligent Workstation shall provide a command line allowing the user to perform call handling functions, send messages, add notes and access Help.

12.10 CALL CONTROL FUNCTIONS

12.10.1 Selective Answer

1. The Intelligent Workstation shall present 9-1-1 calls with pre-answer ALI information and provide the users the ability to choose which call to answer when multiple 9-1-1 calls are ringing.

2. The Intelligent Workstation shall present emergency administrative calls with Caller ID information, if available.

3. The Intelligent Workstation shall present non-emergency administrative calls with Caller ID information, if available.

4. Please describe the Intelligent Workstation behavior when the Answer button is used on the GUI or the external keypad to answer a call when there are 9-1-1 and/or emergency or non-emergency administrative calls ringing at the same time.

5. If the included Mapping component is used, the workstation shall present 9-1-1 calls with ANI on the integrated Map display at the Pre-ALI location with ability to quickly answer from the Map.

12.10.2 Release

1. The Intelligent Workstation shall have the ability to release any call when complete using a keystroke or mouse click.

2. The Release function shall include forced disconnect when that feature is supported by the originating 9-1-1 service provider.

12.10.3 Hold

1. The answering position shall allow the Call Taker to place any number of 9-1-1 and/or emergency or non-emergency administrative calls on hold.
2. To assist in retrieving the proper call, operators shall be presented with a list of calls on hold, showing the ANI, the ESN, the trunk number, the time and date at which each call was placed on hold.
3. Call Takers shall also have the capability of retrieving 9-1-1 and/or emergency or non-emergency administrative calls that have been placed on hold at another position.
4. The system shall store the ANI/ALI information while the call is on hold hence avoiding repetition of the ALI request. This cached ALI information shall be provided automatically to any workstation retrieving the call from hold, including remote positions.

12.10.4 Conference Transfer

1. The proposed system shall provide multi-party conferencing within resource constraints of the network, for any number of parties as a standard feature.
2. The system must be able to conference all types of trunks, lines and stations in a single conference.
3. Conference audio mixing must be done digitally to avoid audio quality degradation as parties are added.
4. Use of the conference feature shall not preclude or prevent the use of any other standard call handling feature such as Monitor, Hold, or TDD send and receive.
5. The system must track the join and release of each local and remote conference party and make that detail available in the standard Call Detail Report.
6. The Intelligent Workstation shall provide the capability for an E9-1-1 call to be transferred by the call taker on an outgoing trunk to another PSAP with or without requiring hook flash signaling, based on required provider line configuring requirements. The transfer shall be initiated by the single click of a transfer button and shall be transparent to the tandem. The ANI shall be transmitted with the transferred call.
7. The Intelligent Workstation shall have the ability to transfer an established 9-1-1 call to another group or queue of Intelligent Workstations by either a speed dial or manually dialed number.
8. The Intelligent Workstation shall allow for the user to remain on an incoming 9-1-1 call and execute the conference transfer without putting the calling party on hold.
9. The Intelligent Workstation shall have the ability to transfer an established administrative call, on a circuit configured with three-way calling, by executing a hook-flash on the incoming administrative circuit followed by either a speed dial or a manually dialed 7-digit or 10-digit telephone number.
10. The Intelligent Workstation shall have the ability to transfer an established administrative call to a third-party by creating a conference with an outbound administrative line and either a speed dial or a manually dialed 7-digit or 10-digit telephone number.
11. The Intelligent Workstation shall have the ability to transfer an established administrative call to another group or queue of Intelligent Workstations by either a speed dial or manually dialed number.
12. Please state how many parties the system allows to be placed in a conference.

13. The user shall be able to drop out of any of these conferences, leaving the other connected parties talking as long as at least one of the other parties possesses disconnect supervision on the connection.

14. The Intelligent Workstation shall be able to execute a conference transfer while on the line with the calling party and another Intelligent Workstation.

12.10.5 Agency Transfer

1. The Intelligent Workstation shall have the capability to display at least three (3) emergency service agency transfer buttons when a 9-1-1 call is received.

2. This capability shall allow a user to transfer a call to the appropriate agency, based on the ESN based transfer feature of Legacy Selective Routing and establish a no-hold conference call with a keystroke or mouse click.

12.10.6 Mute

1. Users must have the ability to prevent all call participants from receiving audio from their phone but continue to hear any connected call participants.

12.10.7 Deafen

1. Users must have the ability to communicate privately, without the Caller being aware. The caller remains connected to the conference call but is prevented from hearing the conversation of the other conference participants. Conference participants continue to receive audio from the deafened caller.

12.10.8 Silent Monitor

1. The user must have the ability to connect to an active call, but only to listen to the ongoing conversation. The Call Taker interacting with the caller is not notified that the call is being monitored.

12.10.9 Barge-In

1. The Intelligent Workstation shall give the user the ability to barge into or join an existing 9-1-1 or administrative call by selecting the appropriate circuit indicator.

2. ANI/ALI information, if available, shall be displayed on the user's display when barge-in is performed on a 9-1-1 call.

3. The Intelligent Workstations shall be able to execute a transfer (speed dial or hook flash) while barged-in with another Intelligent Workstation.

4. This feature shall be controlled by established user privileges.

12.10.10 Override Control

1. The Intelligent Workstation shall give the user the ability to become the primary owner of another user's active call, disconnecting the original owner.

12.10.11 Redial

1. The Intelligent Workstation shall provide Last Number Redial capability. Redial shall be provided transparently for the last inbound or outbound call with a single click.

2. The Intelligent Workstation shall include a function to allow the user to initiate a redial of any previously answered call using a single keystroke or mouse click.

3. The Intelligent Workstation shall include a function to allow the user to view a list of the previous 9-1-1 or administrative calls answered on that workstation, select a call from the list and to initiate a redial of the selected call using a keystroke or mouse click.
4. The Intelligent Workstation shall perform a callback to a wireline 9-1-1 calling party by dialing the ANI received during the original call.
5. The Intelligent Workstation shall perform a callback to a wireless or VoIP 9-1-1 calling party by dialing the CPN received during the original call.
6. Local and long-distance numbers shall be detected and dialed as appropriate without user intervention.
7. Non-dialable numbers shall be skipped over in the single button Redial buffer.

12.11 SPEED DIAL

1. The speed dial feature shall allow the user to quickly access frequently called telephone numbers from a pre-programmed Directory list.
2. A speed dial feature shall allow access to an unlimited number of speed dial entries.
3. Speed dial numbers shall consist of any number of digits per entry.
4. Each speed dial entry shall allow more than one phone number.
5. The speed dial feature shall be able to be organized into Customer defined categories. The number of categories should not be limited.
6. The categorized Directory list shall include single click icons for the most frequently called entries.
7. The user shall be able to initiate a call to the speed dial by a keystroke or mouse click.
8. The speed dial feature shall be user-programmable only under credential-based level access.
9. Speed dial searching should match any field in the library including digit fields. Search strings should match anywhere within the field, not requiring to match from the beginning of the field.

12.12 TDD/TTY

1. The Intelligent Workstation shall be capable of detecting emergency calls originating from Baudot-type Telecommunication Devices for the Deaf (TDD/TTY) equipment and indicating to the user the presence of the TDD/TTY call.
2. The Intelligent Workstation shall be capable of manually connecting to emergency calls originating from TDD/TTY equipment; as well as originating Baudot calls.
3. The Intelligent Workstation shall allow users to communicate with TDD/TTY callers directly from their NG9-1-1 Intelligent Workstation keyboard without requiring the use of any external device.
4. The Intelligent Workstation shall allow users to access and send pre-programmed TDD/TTY messages.
5. All TDD features shall function correctly on all calls; regardless of other features being used such as Conferencing, Monitor or Barge-In.
6. The system must comply with ADA requirements for HCO (Hearing Carry Over) and VCO (Voice Carry Over) calls.

7. The System must store all TDD/TTY conversations in call detail reports.
8. TDD communications shall be timestamped and indicate the transmitting party. Historical TDD messages and timestamp information shall be available for review within the Call History and MIS views.

12.13 TEXT-TO-9-1-1 (SMS)

1. The proposed system must comply with the NENA i3 standards to support text-to-9-1-1 messaging.
2. The proposed system shall provide the receipt and management of 9-1-1 text (SMS) calls, as delivered.
3. The Intelligent Workstation shall provide an integrated 9-1-1 text call taking window allowing Call Takers to immediately view and respond to the message.
4. The Intelligent Workstation user interface shall process 9-1-1 text (SMS) calls in the same manner as voice and TDD/TTY calls.
5. The 9-1-1 text call processing window shall feature pre-programmed messages for users to provide "one-click" response to common messages.
6. Additional information related to the text call shall be displayed, if available, such as ALI results, prior information based on the phone number or location and call and/or location history based on the phone number or caller's location.
7. The proposed system shall display an icon on the map at the location of the call provided MSRP (Message Session Relay Protocol) in use.
8. The proposed system shall allow the user to continue to take and manage voice calls while participating in multiple SMS calls.
9. Text-to-9-1-1 conversations shall be allowed to be transferred to other agents on the host system.
10. Text-to-9-1-1 conversations shall be allowed to be transferred to other PSAPs on the host system.
11. The proposed system shall log the 9-1-1 text conversation and the actions performed and become part of the 9-1-1 record.
12. Historical SMS messages and timestamp information shall be available for review within the Call History and MIS views.
13. The proposed solution shall support Text-to-9-1-1 connecting directly to the ESInet using native NGCS i3 standards.
14. The proposed solution shall support Text-to-9-1-1 connecting directly to a Text Control Center (TCC) via MSRP.
15. The proposed solution shall support co-habitation of third-party web-based Text message applications for pre- i3 support.
16. Text via TTY will not be considered integrated for this solution.

12.14 DTMF (DUAL-TONE MULTI-FREQUENCY SIGNALING) ASSIST

1. The proposed system shall display the DTMF tone if the Call Taker prompts the caller to press specific number keys on their phone.

12.15 AUTOMATIC LOCATION IDENTIFICATION (ALI)

12.15.1 ALI Display

1. The Intelligent Workstation shall display ALI information consistently when interfacing with different ALI providers that send their information in different formats.
2. WC9-1-1 shall be able to specify the format of the ALI information that is displayed on the call taker screen.
3. Workstations shall be capable of providing a visual display of the calling party's street address information based on the ANI and must also be capable of extracting geographical coordinate information from the ALI file received. The system must also be able to transmit this information to the mapping software.

12.15.2 ALI Parsing

1. The System shall guarantee that ALI data is appropriately and consistently displayed when interfacing with different ALI providers understanding that different ALI providers send their information in various formats (i.e. wireline vs. wireless).
2. The System must provide a method for formatting the ALI for calls with 20-digit ANI Call Path Associated Signaling (CAS) and 10-digit Non-Call Path Associated Signaling (NCAS) so the Calling Party Number (CPN) appears in the same location as landline calls. This formatting must provide the CPN to the ANI callback list for both CAS and NCAS calls.

12.15.3 ALI Discrepancy Report

1. The system shall provide a method to allow users to save a copy of an incorrect ALI record as it appeared during a call with revisions reported by the caller. These discrepancies will be available via report on demand in a PDF format.

12.15.4 ALI Retry

1. The proposed system shall have an automatic ALI Retry capability for 9-1-1 calls.
2. The ALI Retry feature shall be configurable as to the number and frequency of intervals for automatic mode.
3. The proposed system shall provide the ability to manually request ALI data.
4. The system shall have the ability to disable manual ALI requests on a PSAP by PSAP basis.

12.15.5 RapidSOS Enhanced Location

1. The proposed solution must provide seamless integration with RapidSOS improved wireless location / GPS coordinates as a supplemental source to the traditional ALI data.
2. The solution shall provide the RapidSOS coordinates both in text and displayed on the map.
3. The solution shall allow the Call Taker to compare the two (ALI and RapidSOS) location reports and use the one, which is most useful in the context of the call.
4. The proposed integration shall allow dynamic updates of the RapidSOS coordinates in text and displayed on the map.

5. The solution shall record the RapidSOS location data if available, in the call details for reporting and data exports.

12.16 Abandoned 9-1-1 Calls

1. The proposed system shall detect abandoned 9-1-1 calls and be capable of collecting the ANI digits and processing the ALI lookup regardless of the condition of the call (i.e. on-line or hung up).
2. The proposed system shall visually and audibly indicate that a 9-1-1 call is abandoned and show its ALI based location on the map.
3. The ANI and ALI of the abandoned caller must be available for viewing by the user and a single click call back.

12.17 Instant Recall Recording (IRR)

1. The Intelligent Workstation shall provide Instant Recall Recording (IRR) functionality for 9-1-1 and Admin Lines as required.
2. In legacy CAMA deployments, the telephone IRR capture shall begin at the time the call begins ringback for pre-answer insight.
3. Recordings shall be accessible on the Intelligent Workstation and provide for a 24-hour rolling log, by the user of recordings available for review.
4. Playback shall be via an external speaker connected to the Intelligent Workstation.
5. The intelligent Workstation must provide the following options:
    a. Record both caller and call taker audio
    b. Support all functionality to record caller, call taker(s), administrative phone, ringer and auxiliary port (if utilized).

12.18 Instant Messaging

1. The proposed system shall provide a quick method for system users to chat with other system users or other PSAPs that may be connected to a hosted system as required.
2. The proposed system shall provide a configurable option for an audible alert on receipt of an Instant Message.

12.19 Call Review

1. Workstations shall allow a call taker to view the ANI information of at least the last 10 calls released at their answering position.

12.20 Automated Greetings

1. The console shall provide the ability for each agent to pre-record their greetings based on the line type of the incoming call such as 9-1-1, ten-digit emergency or non-emergency administrative calls.
2. The proposed system shall automatically play the appropriate agent greeting to the caller based on the line group immediately when the call is answered at the console.

3. The proposed system shall include the outgoing greeting in the call recording.

12.21 Overflow Capability

1. The system shall have the capability to overflow all unanswered calls to another group of Intelligent Workstations or an outside agency when a 9-1-1 or administrative call has not been answered.
2. The system shall have the capability to overflow all unanswered 9-1-1 calls to another group of Intelligent Workstations or an outside agency when a 9-1-1 call has not been answered within a specified time.
3. The system shall have the capability to overflow all unanswered 9-1-1 calls to another group of Intelligent Workstations or an outside agency when a 9-1-1 call is presented to the system and no users are available to answer.
4. The system shall have the capability to overflow all unanswered administrative calls to another group of Intelligent Workstations or an outside agency when an administrative call has not been answered within a specified time.
5. The system shall have the capability to overflow all unanswered administrative calls to another group of Intelligent Workstations or an outside agency when an administrative call is presented to the system and no users are available to answer the call.
6. The system shall have the ability to continue to ring the original group of Intelligent Workstations the call was presented to in addition to the overflow groups.

12.22 Automatic Call Distribution (ACD)

1. The proposed system must support an ACD capability allowing for inbound call traffic to be grouped, with calls presented to specific Call Takers based on a distribution scheme and Call Taker availability.
2. The ACD system shall support a Round Robin queue distribution scheme.
3. The ACD system shall support a Longest Idle queue distribution scheme.
4. The ACD system shall allow WC9-1-1 to define a combination of skills and capabilities for any particular group of users as necessary.
5. The ACD system shall support an unlimited number of queues per user group/PSAP.
6. The ACD system shall allow each queue to be configured independently.
7. The ACD system shall support the ability to prioritize across queues.
8. The ACD system shall provide the ability to automatically answer incoming ACD calls where the Call Taker hears the zip tone and is immediately connected to the caller.
9. The proposed solution shall provide ACD states which determine whether the Call Taker is ready to receive a call or not.
10. The console shall provide the ability for an agent to change their state to and from ready and not ready to receive an ACD call.
11. The ACD system shall provide the configurable ability to provide post-call-processing time for giving the agent time to wrap up the previous call prior to becoming available for new ACD calls.

12. The ACD system shall support the ability to re-route to an alternate queue based on maximum wait time, maximum calls in queue, or no agent signed into the queue.

13. A configurable pre-recorded greeting shall be supported on a per-ACD Queue basis. The announcement audio will be interleaved with ring back indication to the caller while that caller is in a ringing state and should not delay call presentation.

12.23 User Login

1. The system shall provide login verification capability and each user will be prompted to login using a username and password.

2. Upon successful log-on, all 9-1-1 lines, administrative lines, functions, and capabilities shall be made available to the user solely based on the user login credentials.

12.24 User Security

1. All workstations shall be configured with a security policy for non-administrative users that prevents the user from reaching any functions or operating system settings not required by the NG9-1-1 solution.

2. All workstations shall be configured with a security policy for administrative users that enables access to the operating system.

12.25 Call and Event Details (Call History)

12.25.1 Call Detail Record (CDR)

1. The system shall capture and store all available information pertaining to each 9-1-1 call on the system server as read only.

2. The system MIS shall access the Call Detail Records (CDR) for reporting purposes.

3. The information contained in each CDR must include at minimum:

    a. Caller's ANI and ALI

    b. Incoming trunk

    c. Call Taker answering position

    d. Transferred destination

    e. Date, time(s) of the various connect, disconnect and transfer events

    f. Other particulars relating to the call

12.25.2 Viewing Call Details

1. The Intelligent Workstation shall provide an efficient method to view details of an active or released call.

2. The Intelligent Workstation shall provide a method to allow the user to view the ANI and ALI information of answered 9-1-1 calls and the Caller ID information of answered administrative calls for active and released calls.

3. The Intelligent Workstation shall provide a method to allow the user to view previous calls at the location or phone number of an active or released call.
4. The Intelligent Workstation shall provide a method to allow the user to view associated premise information of the call address.
5. The Intelligent Workstation shall provide a method to allow the user to view the full detailed record of start-to-finish call activity.
6. The Intelligent Workstation shall provide a method to allow the user to view the call location on the map if the ALI Results for the call contain a valid location.
7. Please describe the number of previous calls the system can display and how they are displayed.

12.25.3 Activity Log

1. The Intelligent Workstation shall provide a chronological display of all activity across all users including call management actions, and system messages for a period of time.

12.26 Print Capabilities

1. The Intelligent Workstation shall provide a method for on demand printing of call detail information to a network printer.
2. The Intelligent Workstation shall provide the ability of automatic printing of call detail information to a network printer when a call is answered.

13 CALL HANDLING AND PREMIERONE™ CAD INTEGRATION

13.1 9-1-1 AND CAD INTEGRATED CALL CONTROL

1. PremierOne CAD has integrated NG9-1-1 call handling functionality allowing the use of a single keyboard and mouse to control both applications (CAD & 9-1-1).
2. The proposing vendor must commit to adhere to NENA i3 standards in a reasonable time frame as new features are added to i3.
3. The proposing vendor must be able to have PremierOne CAD system show both the CAD User Interface and the 9-1-1 call handling User Interface on the same monitor.
4. The proposing vendor must be able to have PremierOne CAD system have the NG9-1-1 user screens resident on the same workstation as the CAD.
5. The PremierOne CAD and NG9-1-1 system must have a unified set of function keys and keyboard shortcuts.
6. The 9-1-1 call handling features, and functionality must be accessed from the NG9-1-1 call control User Interface or the CAD command line.
7. The PremierOne CAD system must have the ability to capture all Call Data Record (CDR) information in the CAD Report Data Warehouse.
8. The proposing vendor system must have the ability to allow the PremierOne CAD system the ability to query location data from RapidSOS.
9. The proposing vendor system must have the ability to allow the PremierOne CAD system the ability to query supplemental data from RapidSOS.

14 SYSTEM ADMINISTRATION

14.1 ADMINISTRATIVE SYSTEM MANAGEMENT

1. The system shall provide a mechanism to allow a system administrator to maintain core system functions as well as users and interfaces. Vendor shall describe how their proposed system meets this requirement in detail.
2. The vendor shall allow an administrative privileged user to access any computer residing on a private IP administrative network to have access to the NG9-1-1 system IP network for call monitoring, administration, statistical reporting, and MIS purposes. Vendor shall describe how their proposed system meets this requirement in detail.
3. The proposed system shall have the ability to send out instant global notifications to all connected system users or groups of users.

14.2 AUTOMATED BACKUP OPERATION

1. All critical system files such as Maintenance Logs, Statistics, Call Records, stored ALI Information, TXT2911 and TDD/TTY conversations, etc. shall be saved daily to an external storage device provided by WC9-1-1.

14.3 MONITORING AND ALARMS

1. The system must be capable of self-monitoring vital processes and sending alarms in the event of an alarm condition.
2. In the event of a self-monitored system alarm, the system must be able to distribute an e-mail, providing brief description of the alarm condition to individuals or email addresses identified by WC9-1-1.
3. There shall be a minimum of two (2) categories of alarms (non-critical, critical) depending upon the criticality of the event. Please state if the system supports more alarm conditions.
4. Remote Monitoring of the system by the vendor of its health on a 24x7x365 basis is required.

14.4 MANAGEMENT INFORMATION SYSTEM (MIS)

1. The vendors shall provide a comprehensive management and statistical reporting system to provide the PSAP management personnel with real-time and historical information.
2. The reporting system shall be customizable such that the generating of reports for varying time periods can be selected.
3. Call recordings shall be accessible for all active and past calls and long-term download through the MIS system for users with credentials.
4. The proposed MIS system shall provide a method to start with a piece of information and be able to easily explore through all related data to find the information needed.
5. All call related information shall be saved in electronic format.

6. Please state if the data generated from these reports is exportable to an 'off-the-shelf' database or reporting software.
7. The proposed system shall support an interface to ECaTS, a third-party MIS subscription service, to provide exported historical Call Detail Record information captured in the proposed solution.
8. Historical data shall be segregated by PSAP so that reports may be run by an individual PSAP if required. Historical data for one PSAP shall not be available to other PSAPs.

14.5 Real-Time Call Status Monitoring

1. The proposed system shall support an optional window within the call handling solution to display real-time call statistics for logged on users in assigned dispatch groups.
2. The proposed system shall support a commercial off-the-shelf LCD panel configurable to show live call activity.
3. The real-time call display shall show for each call type (E9-1-1, 7-Digit Emergency, and Administrative), the following:
    a. Number of calls ringing.
    b. Number of calls connected.
    c. Number of calls on hold.
    d. Number of calls abandoned.
4. The real-time call display shall show for each dispatch group of which a logged-on user is a member, the following:
    a. Number of inbound calls ringing.
    b. Number of users ready to receive a call.
    c. Number of users not ready to receive a call.
    d. Number of users on a call.
5. The real-time call display shall show for each logged-on user, the following:
    a. Position the user is working.
    b. Their active status (such as ready, not ready and on call) and the time in that status.
    c. Dispatch group(s) the user is a member of.
    d. Average answer time over a configurable 12 or 24-hour time period.

15 INSTALLATION

1. The vendor and WC9-1-1 shall agree upon a proposed delivery timeline prior to the start of system installation.
2. The vendor shall be responsible for all aspects of the installation of the system.
3. The vendor is responsible for installing all equipment and new cabling required for the proposed system to include any necessary cable extenders for keyboards, mice, accessory keypads, speakers and monitors as may be required.
4. The vendor shall install removable Velcro straps for all cable bundles and rack cable management. Plastic tie wraps shall not be used.
5. State the number of CAT6 plenum grade cables to be installed at each Intelligent Workstation.
6. Any additional cables that the vendor may need to complete the Intelligent Workstation installation must also be plenum grade.
7. All cables must be identified on each end with permanent labels.
8. Cabling shall include connection of all administrative circuits and 9-1-1 circuits to the digital recording system cross connection block.
9. The WC9-1-1 will be responsible for the disposal of all abandoned equipment and cabling.
10. System grounding must comply with industry standards and good engineering practices. The vendor shall provide a comprehensive grounding review prior to system installation and notify WC9-1-1 of any deficiencies found. WC9-1-1 and vendor shall then agree upon a remediation plan and responsibilities for any deficiencies noted.
11. The system must operate from standard 115V, 60 Hz, single-phase power. The vendor shall state the power requirements for the backroom equipment and each answering position.
12. The successful vendor will procure, receive, build out and stage the entire system as outlined in the final, negotiated contract process and factory test prior to installation at the PSAPs.
13. The equipment purchased in this RFP shall be delivered to its proper location and installed by the vendor without additional cost or expense and at the convenience and direction of WC9-1-1.
14. All work shall comply with the applicable national, state, and local codes and regulations.
15. The vendor is responsible for securing all required licenses and permits for any work performed in connection with this RFP.
16. WC9-1-1 reserves the right to reject any subcontractors. If this should occur, the vendor may submit an alternative that is acceptable. Should a subcontractor fail to provide a reasonable level of service, the vendor must resolve this failure at its expense.
17. The vendor shall be responsible for any damage to existing systems or structures during the installation of the system.

16 TRAINING

1. The vendor shall include in its response, a training curriculum for users, administrators and training instructors. The training curriculum shall include instruction on all aspects of the Intelligent Workstations, core host equipment and management information systems.
2. Training materials for users, administrators and training instructors shall be approved prior to the delivery of any training.
3. The training schedule and location shall be approved prior to training classes beginning.
4. The training schedule shall consist of a sufficient number of days for user training to allow for shift rotation, and a sufficient number of days for system administrator and reporting training.
5. The vendor shall have personnel on-site for the system cutover and for at least the first 24 hours following cutover for transitional support.
6. The proposed solution shall offer an e-learning training program allowing users to have access at any time on any device to provide training for new employees, refresher training for existing users and continuing education on new features and enhancements.

Training Classes

Training shall be provided for the following personnel:

Personnel	Quantity
Tier One Support Personnel	4
Call Takers / Dispatchers	140
PSAP Administrators	10
WC9-1-1 System Administrators	5

17 SYSTEM TESTING AND ACCEPTANCE

1. The vendor shall create a written testing and acceptance plan after award of the contract based on the equipment selected and present for approval.

2. System Acceptance will not be provided until all items on the acceptance test plan are met to the satisfaction of WC9-1-1. Punch list items may be agreed upon as a condition of acceptance.

3. WC9-1-1 shall not be deemed to have accepted any component or piece of equipment until such time, as said equipment has been installed, tested and is operating in accordance with the specifications contained herein.

4. The following failure priority levels shall be defined for use during the Systems Acceptance Testing process:

    a. Critical failures are major system failures that render the system unusable or significantly reduce system operability and are considered to be operationally unacceptable.

    b. Non-critical failures are system failures or open punch list items that minimally reduce system operability or have little or no effect on system operability and usability and are considered to be operationally acceptable only during the acceptance testing phase.

    c. Final acceptance testing is expected to commence immediately upon system cutover and proceed for thirty (30) consecutive Critical failure free days. If a critical failure occurs during the System Acceptance Testing period, the process will be stopped, and the failure(s) must be expediently fixed to WC9-1-1's satisfaction. During this period of interruption, the system must continue to operate with the greatest degree of reliability possible, given the respective failure. The System Acceptance Testing period of thirty (30) consecutive critical failure free days will restart the day after repairs are affected.

5. Testing must include a measurable testing process for each functional and technical aspect of the specifications listed in the vendor's proposal, in addition to, System performance measurements based on the telephone activity to date in the County's PSAPs. This testing may serve as a sign off process for payment milestones to the vendor.

18 WARRANTY, MAINTENANCE, AND DOCUMENTATION

18.1 WARRANTY

1. System Warranty periods for all hardware and software shall begin upon final acceptance of the system and shall run for a minimum period of twelve (12) months. Please state any warranties that exceed the required twelve (12) month minimum.
2. A complete listing of all warranties including systems and equipment, detailing what is included and what is not included shall be included.
3. This System Warranty requirement shall take precedence over any conflict in the vendor's warranty agreement.

18.2 MAINTENANCE

1. The system maintenance period for all hardware, software and on-site maintenance shall begin upon final acceptance of the entire system and shall run for a period of twelve (12) months.
2. System Software/Firmware, Operating System and Security upgrades, patches, and updates shall be included in the vendor's software support agreement. The vendor shall be responsible for the installation of any upgrades, patches and updates.
3. No unplanned system downtime shall be acceptable for upgrades, patches and updates.
4. Vendor shall guarantee the availability of service assistance, repairs, and spare parts for a minimum of five (5) years after system acceptance.
5. Technical and maintenance support shall be available by phone 24x7x365.
6. Vendor shall have a manufacturer-maintained web portal access for the ability to file support issues and view all support tickets filed under the WC9-1-1 name.
7. Technical and maintenance on-site support must be available with a response time, on-site, of no more than four (4) hours for critical failures. This shall be available 24x7x365.
8. Certified local service centers must be based within the (4) hour response time area and be capable of Tier 1 support, troubleshooting and maintenance of the system. Please describe the Tier 1 and Tier 2 response system that will be put in place.
9. Local service centers within the response area must be trained and certified prior to acceptance of the system. Please describe the level of training that technicians will receive before deployment.
10. WC9-1-1 will provide remote access to the Data Centers and remote site.
11. The vendor shall include quarterly on-site visits to perform preventive maintenance to include an agreed upon checklist of items.
12. The vendor shall be responsible for all contact with Tier 2 or higher manufacturer support personnel.
13. The vendor shall not ask PSAP personnel to perform any on-site maintenance beyond restarting the Intelligent Workstation.

18.3 DOCUMENTATION

1. Two complete sets of as-built drawings are required.
2. Provide documentation for the installation, operation and maintenance for each component of the system. This documentation will include user manuals, maintenance manuals, and parts list of the equipment necessary for the continued and proper preventative maintenance and repair.
3. A backroom cabinet diagram shall be included in the as-built documentation.
4. The proposed solution shall provide online Help.

19 SYSTEM OPTIONS

19.1 9-1-1 PHONE ONLY

1. The proposed system shall provide an option for a “VoIP phone only” capability to facilitate additional Call Taking positions or smaller remote positions or sites.
2. The proposed phone-only position shall provide functions for E9-1-1 and admin calls such as ALI and call management options (i.e. Transfer, Hold/Unhold, Conference, etc.).

19.2 PORTABLE ANSWERING POSITION

1. The proposed solution shall provide the ability to handle short-term increases in projected call volumes (such as those due to natural disasters or extraordinary events) using portable laptops.
2. The portable answering position shall provide Call Taking software for the laptop along with VoIP phone capability.

20 PRICING

1. Please fill out the pricing table (Attachment A) as your official price.
2. DO NOT ADD ANY ITEMS TO THE BASE SYSTEM PRICING THAT ARE NOT EXPLICITLY CALLED FOR IN THIS RFP.
3. If the addition of extra hardware or software, in the vendor's opinion, would significantly add to the reliability or robustness of the proposed system, the vendor is required to add the cost of that as a new numbered line item in the options pricing section of Attachment A.
4. Prices shall remain valid for at least 120 days after the RFP due date.

21 ATTACHMENT A – PRICING DOCUMENT

PRIMARY SITE

System controller/workstation hardware/software	_____
MIS/Reporting and Call Monitoring	_____
Installation	_____
Project Management	_____
Training	_____
First year software support	_____
Remote Monitoring and Help Desk	_____
First year on-site support	_____
TOTAL BASE PRICE	_____

Options

9-1-1 Phone Only Positions	_____
Portable Answering Positions	_____

Extended Maintenance

Year 2 Software license/maintenance/call center	_____
Year 2 On-site support	_____
Year 3 Software license/maintenance/call center	_____
Year 3 On-site support	_____
Year 4 Software license/maintenance/call center	_____
Year 4 On-site support	_____
Year 5 Software license/maintenance/call center	_____
Year 5 On-site support	_____

Signature _____

Name _____

Title _____

Company _____

Date _____