

**BID SPECIFICATIONS
FOR
ANI/ALI CONTROLLER
EMERGENCY CALLWORX CALLSTATION
\$94,492.55 (INCLUDING OPTIONS)**

GENERAL

These specifications shall be construed as the minimum acceptable standards for an ANI/ALI controller. The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size and quality of equipment considered best adapted to the uses of entities participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the bid submittal form included in the invitation to bid package. All written warranties to be submitted shall be attached to the bid submittal form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates, and all other applicable costs and refunds.

GENERAL BIDDER REQUIRMENTS

The successful bidder must be in compliance with each of the following:

- Authorized Distributor of NENA-compliant E9-1-1 Systems and associated products
- Must have offered and maintained E9-1-1 equipment to a client within the continental United States for a minimum of 5 years
- Overall capability to provide the services described proven through manufacturer agreements, technical certifications, qualified engineering, installation and maintenance resource capacity and capability, past similar installations, and current customer references.
- Distribution and equipment depot(s) capable of providing access to adequate spare parts, materials and testing equipment needed to maintain system within the response time(s) specified in this RFP.
- Successful history in providing PBX based and IP based E9-1-1 equipment, services and support to similar governmental entities
- Business history and financial strength that demonstrates the ability to provide engineering, installation and maintenance services through the life of the service contract
- Clear documentation of equipment, services and prices offered
- Ability to show installed, working PBX and IP based E9-1-1 Communication Systems in the field of the same design to be proposed
- Experience working with E9-1-1 agencies with multiple PSAP's

TECHNICAL REQUIREMENTS

ANI/ALI Equipment and Telephony Switch

Telephony Switch

The Telephony Switch may be PBX based or IP based soft switching technology and be paired with an Integrated Microsoft Windows or Linux/Unix based Client/Server ANI/ALI/MIS system that shall comply with all current NENA protocols and standards.

Wireless compatibility

The ANI/ALI Equipment must be Wireless Phase I and II compatible per FCC order.

Architecture

The Bidder shall describe their system architecture with respect to the major components or modules, and describe how the system will react to a failure of each major component or module. The system may use serial communications or TCP/IP network and client/server network design. Any use of RS232 serial communication between the workstation positions and controller must be identified. If network connections to the 9-1-1 workstations require any other cabling than industry standard serial or IP Ethernet please explain.

The ANI/ALI controller must be compatible with eight, ten, and twenty-digit ANI delivery, and non-call associated signaling (NCAS) solutions.

Administrative Trunks

The Central ANI/ALI/Telephony Switch shall have a 2-wire telephone line interface which may be either loop start or ground start. Caller-ID functionality with name or name and number delivery shall be provided on all administrative telephone line interfaces. Centrex style administrative circuits will be supported with either 3 digit or 4 digit Centrex functionality.

E9-1-1 CAMA Trunks

The Central ANI/ALI/Telephony Switch shall have a loop reverse battery supervision trunk CAMA type interface to the central office compliant with all applicable AT&T Southeast technical requirements.

Direct IP Trunks

The proposed system must have the capability to terminate native IP telephony (standard SIP call) emergency and administrative calls. Please state if additional equipment is required to terminate direct IP trunks and provide pricing.

Manual Telephone Connections

Vendor should provide for a sufficient number of manual analog multi-line telephones to be installed in the Primary and Backup PSAP's so that all of the 9-1-1 trunks and all of the administrative lines may be answered on the manual phones in the event of a complete failure of the IP soft switch or the PBX. 9-1-1 trunks and administrative lines should have graded across multiple manual phones. Manual phones should have adjustable ringers so they may be left in the silent mode during normal system operation.

Switch Administration and Maintenance

The IP or PBX based Communication System switch must be administered, monitored and managed centrally. This includes a single point of administration for software/firmware upgrades, OS and security updates across all sites. Remote administration shall also be required. Remote administration through a secure VPN connection is required. Dedicated modem access is acceptable as a backup means of access.

All network interfaces connected to either a managed WAN or protected via a Virtual Private Network (VPN) through the public internet must include protection against security attacks from outsiders and insiders.

9-1-1 Trunk and Administrative Line Gateway Placement

Vendor must be able to provide multiple media gateways / call control interfaces to insure that customers can place these critical resources on different Ethernet switches to provide failure diversity.

ALI Retrieval System Interface

The ANI/ALI Equipment must interface to the AT&T Southeast ALI Retrieval system.

The system must have at least two output interfaces for transmission and receipt of wireless and wired call data to the AT&T Southeast ALI retrieval system.

The proposed system should have an auto ALI re-bid capability.

Vendor is responsible for providing 2 (two) 9.6K ALI modems to AT&T specifications if required.

The ANI/ALI Equipment must be compatible with eight and ten digit remote database query methods and with eight and ten digit local database query methods.

The system should also support advanced NENA Extensible Markup Language (XML) tags for standardized data exchange.

CAD System Interface

The Central ANI/ALI/Telephony Switch shall have an RS-232 output interface to a Computer Aided Dispatch (CAD) system in accordance with the NENA 04-001 CAD interface standard. This output data must be configurable on site to select or define format of data to be sent to existing CAD systems.

External Clock Interface

The ANI/ALI Equipment and Telephony Switch shall be equipped to interface to an external clock source in order to ensure consistency of time stamps added to event records and reports from all PSAP equipment. Compatibility with Spectracom© NetClock and Network Time Protocol (NTP) is required.

E9-1-1 Network Compatibility

The solution, including software, hardware and interconnections shall be compatible with the existing AT&T E9-1-1 network service.

Virus Protection

All PC based machines (servers and workstations) in the network shall have virus protection software installed and functioning.

Forced Disconnect

Operators shall be capable of releasing an existing E9-1-1 call at any time, regardless of whether the calling party has hung up.

Overflow Capability

The ANI/ALI Equipment and Telephony Switch shall allow E9-1-1 calls to be routed to a designated alternate location if all operators are busy.

Central Office/Tandem/PSAP Transfer

The ANI/ALI Equipment and Telephony Switch shall provide the capability for an established E9-1-1 call to be transferred by the operator, via the E9-1-1 tandem office, to another PSAP or some other destination using hook flash signaling.

The ANI/ALI Equipment and Telephony Switch shall also have the capability of remote software controlled transfers of data and voice to the Backup and Remote PSAPs over the secure IP network. The telephones attached to each workstation shall have the capability to manually create a “hook flash” to execute a manual tandem transfer.

Selective Transfer

The ANI/ALI Equipment and Telephony Switch must be able to provide the capacity for access to a minimum of three (3) emergency service providers for each ESN. This capability will allow an operator to transfer a call to an agency and establish a conference call.

Abandoned Call Information

The ANI/ALI Equipment and Telephony Switch shall 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).

The ANI/ALI Equipment and Telephony Switch shall collect the digits immediately after applying battery to the 9-1-1 trunk and then process the ALI lookup. The ANI/ALI of the abandoned caller must be available for viewing by the operator.

The system shall provide a visual indicator to the PSAP attendant when a caller has terminated the call.

Automatic Call Detail Record (CDR) Print

The ANI/ALI Equipment and Telephony Switch shall have an output for Call Detail Record print which allows each incoming E9-1-1 call to be recorded in a printed format on a continuous printer in a real time mode and without operator intervention.

Printers on the system must be standard, plain paper printers available in the marketplace. Printer drivers required for standard and selected printers must be provided as part of the system.

The CDR information should also be stored on the database servers and be accessible for reports.

Redundancy

The system architecture shall be such that the failure of any one component or module will not result in total system failure, but only the loss of the equipment associated with that module. All vital system modules must be protected through the use of redundant modules to ensure single point failure tolerance.

The system shall be capable of hot standby, or hot active, operation on all vital modules such that failure of any of those modules will result in automatic switch-over to the backup module.

The system shall provide at least two application servers for ensured redundancy. Both application servers must provide for constant availability; each of which must have the ability to support all call taker positions. The system must also enable database mirroring to provide a real-time redundant database that is always available.

Flexibility

The proposed system shall have the demonstrated ability to effectively manage and process a variety different call formats including:

- Traditional analog or digital telephone calls
- Wireless calls in compliance with the FCC Phase I and Phase II mandate for full call integration.
- Voice Over IP in native format in compliance with the emerging NENA I2 standard

Environmental

All central equipment shall be capable of operation at the following minimum and maximum conditions:

- Temperature: 5 to 40 degrees Celsius
- Relative Humidity: 10% to 85%, non-condensing

Specifications: All equipment shall comply with the following specifications and standards:

- Comply with FCC rules part 15, class A for EMI
- Comply with FCC rules part 68
- Industry Canada CS03, ICES-003
- UL/CSA 6950 3rd edition
- CE compliant. (International requirement)
- NEBS compliant
- NENA 04-001 Generic Standards for E9-1-1 PSAP Equipment

All central equipment shall be rack mounted in rack(s) provided by the vendor. A minimized foot print is desirable.

Future Expansion

The system described in these specifications shall be capable of meeting today's needs as well as future expansion in order to meet anticipated future growth. It shall be capable of supplying the equipped wired and maximum quantities specified in this document without replacing any in-place

common equipment. The system should be installed with adequate processor and hardware to meet this growth.

Vendors shall state the expansion capability of their equipment, describing:

Answering Position Equipment

The Answering Position Equipment should be state-of-the-art, digital technology, Pentium IV or newer processor based workstations. The answering position must provide an interface to a headset/handset and to a radio system to accommodate both radio and telephone in the same 6 wire headset/handset.

Telephone Sets

The answering position must also include a telephone set on which 9-1-1 calls can be answered and outbound administrative calls may be answered and/or originated. It is required that the ANI of all 9-1-1 calls be displayed on the telephone set. It is desirable for the ALI of all 9-1-1 calls be displayed on the telephone set.

The telephone set must continue to function with full capabilities in the event of a failure of its associated workstation.

A line appearance for each 9-1-1 trunk answered at the PSAP shall appear on the telephone set.

PC Hardware Requirements

The PC based answering position shall consist of an Intel based computer with all necessary audio and data interface equipment and a 19" flat panel monitor.

Software Requirements

The 9-1-1 client application software must run on Linux/UNIX, Microsoft Windows. XP or Windows. Vista. The screen layout shall allow a high degree of customization to meet the needs of the PSAP.

Calltaker Log-on

The system shall provide log-on capability. Each call taker will be prompted to log-on based on a user name and password. Upon successful completion, all personalized features, functions, and capabilities shall be made available to the call taker. And restored to the last saved status.

Call/Line Indicators

The Answering Position Equipment shall indicate incoming emergency and non-emergency calls by both audible and visual means. 9-1-1 trunks shall have a different audible and visual signal from other lines. The answering position shall also have the ability to visually display the status (idle, busy, ringing, on hold and out of service) of each emergency and non-emergency line.

Relay Control

The Answering Position Equipment shall be capable to control 4 relays (dry contact closures) for general purposes such as opening doors.

System Sounds and Icons

The Answering Position Equipment shall allow a supervisor to modify the system sounds and button icons.

Screen Layout Lock

The screen layout shall be automatically locked when the operator logs in to the answering position.

Screen Layout Restore

The supervisor shall have the capability to restore the original screen layout while making modifications.

Print Capabilities

The Answering Position Equipment shall provide an interface port for automatically printing the ALI and the TDD conversation upon call release. The operator shall also have the capability to print on demand.

Working with other applications

The Answering Position Equipment shall alert the call-taker when a 9-1-1 call arrives in the event that the call-taker is using another application, and it shall be possible for the call-taker to switch to the 9-1-1 application with the click of one button.

Automatic Number Identification

The answer position equipment shall be capable of providing visual display of the emergency caller's telephone number.

Automatic Location Identification

The Answer Position Equipment shall be capable of providing visual display of the calling party's street address information based on the ANI. The answer position equipment must also be capable of extracting geographical coordinate information from the ALI file received and transmitting this information to geographical mapping software.

Wireless Call Handling

The Answer Position Equipment shall present Wireless calls and shall include all standard call-handling features.

Single step wireless callback is mandatory as the operator shall not be required to perform a manual ANI callback for wireless calls.

TDD Detection

The Answer Position Equipment shall be capable of detecting emergency calls originating from Baudot-type Telecommunication Devices for the Deaf (TDD) equipment, and indicating to the operator the presence of the TDD call.

TDD Communication

The Answer Position Equipment must allow operators to communicate with TDD callers directly from their 9-1-1 answering position keyboard, without requiring the use of any external device.

Operators must also be capable of manually connecting to emergency calls originating from ASCII-type TDD equipment, as well as originating both Baudot and ASCII calls from their answering position.

The Answer Position Equipment shall allow users to store and access (send) a minimum of forty (20) pre-programmed TDD messages, as well as to print the previous TDD conversations.

The operator shall also have the ability to create a conference between the TDD caller and up to two (2) non-TDD parties either in 9-1-1 call-taking mode or administrative call-taking mode.

The TDD function must allow an operator to transfer a TDD call to another operator position.

The TDD function must allow the operator to alter its operation to comply with ADA requirements for HCO (Hearing Carry Over) and VCO (Voice Carry Over) calls.

The capability for TDD print that allows each incoming 9-1-1 TDD call to be recorded in a printed format on a continuous printer in a real time mode and without operator intervention shall be provided.

The two-way TDD conversation and text information should also be stored on the database servers.

Call Review

The Answer Position Equipment shall allow the operator to view at least the last 20 calls released at the answering position.

Selective Answer

The Answer Position Equipment shall present calls on the 9-1-1 trunk button with concise ALI information providing call-takers the ability to selectively answer calls based on key information such as location or time in queue.

Automatic ALI Rebid

The Answer Position Equipment shall automatically update XY coordinates at regular intervals. This feature shall be configurable as to the number and frequency of intervals on a per wireless provider basis.

View ALI of Calls in Queue

The Answer Position Equipment shall allow supervisors and/or call-takers to view, in real time, concise ALI information of all 9-1-1 calls in queue at the PSAP.

ALI Parsing

The Answer Position Equipment shall guarantee that ALI data is appropriately and consistently displayed when interfacing with different ALI providers that send their information in various formats (i.e. wireline vs. wireless).

Conference

The Answer Position Equipment must provide the operator the ability to remain on a call and add a new party to the conversation without putting the caller on hold - the caller must remain on-line at all times.

The system shall allow for up to 3 parties to be placed in a conference simultaneously.

Any party shall be able to drop out of the conference, leaving the others talking as long as at least one of the other parties possesses supervision on their connection.

Speed Dial

The operator speed dial shall allow the operator to quickly access frequently called telephone numbers from a pre-programmed list.

The list shall provide access to at least 100 telephone numbers arranged by logical categories. Each list shall be properly identified with a descriptive label.

The operator shall simply click on the list label in order to select the corresponding speed dial list and speed dial number.

Each speed dial entry in the speed dial list shall be assignable to a button on the call taker's screen. A minimum of 20 speed dials must be presented on the IP telephone in a one button configuration.

Callback

The Answer Position Equipment shall have the ability to callback a 9-1-1 caller by dialing the ANI received during the E9-1-1 call setup.

The answering position should provide a single feature key to perform this operation. Manual dialing of the number by the operator shall not be necessary.

The callback of emergency TDD and wireless calls should be performed in the same manner.

Barge-In

The Answer Position Equipment shall give the operator the ability to barge into an existing call by clicking on the appropriate circuit indicator on their screen or pressing the appropriate line appearance on the telephone.

Upon entering any 9-1-1 or administrative call for which ANI/ALI or Caller-ID information is available, such information shall be immediately displayed on the operator's display.

A minimum of three participants must be able to use the barge-in feature on a single 9-1-1 call and there must be an option of "silent barge in".

System Interfaces

The vendor shall provide for NENA compliant standard serial system interfaces for the delivery of ANI/ALI information to CAD and Mapping applications.

The vendor shall also provide for the output of analog audio from the Answer Position Equipment for position recording purposes. It is desirable for the equipment to provide for 2 wire audio and 4 wire audio with contact closure (sense).

Instant Recall Recording

The system must be capable of supporting Instant Recall Recording (call-check) functionality in the PC console. Calls must be accessible by an easy to use interface and provide for a rolling log of at least the most recent one hour of traffic. All recordings should indicate the type of call (9-1-1,

administrative) and allow the operator to enter textual information about the call, if desired. For 9-1-1 calls, the ANI of the caller shall be automatically entered in the text field associated with the call recording.

The IRR must allow an operator to “save” a particular recording during their work period.

Administration, Alarms and Reporting

Administration

Administration shall be a web-browser or windows application that provides the maintenance functions required for the 9-1-1 specific functions implemented by the ANI/ALI Equipment and Telephony Switch. These functions include:

- User configuration
- ALI configuration
- Resources configuration
- Services configuration
- Tandem transfer codes
- Speed dial numbers
- Agency information

Alarms

The system must be capable of sending alarms to an external monitoring service that will notify the user when a system or user module is no longer functioning properly. The monitoring service must be capable of the following:

- 24x7 monitoring of all servers and workstations with the ability to be run locally, or through an internet connection via Virtual Private Networks (VPN)
- Alarm notifications via pager or e-mail
- Remote troubleshooting
- Performance monitoring

The system must provide supervisors and/or maintenance personnel the capability to query the system as to the fault(s) and its affect on the system. Alarm history queries, reporting, and printing must be available.

There shall be a minimum of 2 categories of alarms (major, minor) depending upon the criticality of the event. It is desirable for the system to allow the administrator to configure and monitor alarms from a remote position.

The types of alarms are defined as follows:

- Major - A major alarm shall produce an audible and visual indication at the PSAP
- Minor - A minor alarm shall result in an entry in a diagnostic report

It is desirable for the alarm system to be able to remotely notify administrators of an alarm status by means of e-mail, digital paging or SMS messaging.

Reporting

Bidder shall provide a comprehensive management and statistical reporting functionality to provide the PSAP management personnel with real-time and historical information. It shall be user friendly, customizable and capable of generating reports for varying time periods. The system also shall be able to auto-schedule the generation of predefined reports.

At a minimum, the following information shall be readily available:

- 9-1-1 and Administrative Call Detail Reports-(for record keeping and legal requirements), including ANI, seizure time, position answered, answer time, disconnect time, and incoming trunk number.
- Total count of Wireline and Wireless calls
- Average Call Waiting Report
- Average call duration
- Total Abandoned calls
- Calls by incoming trunk
- Call by hour of day
- Calls answered by position
- Calls answered by all positions
- Call answered by user ID

Paperless Operation

All Maintenance Logs, Statistics, Call Records, ALI Information and TDD conversations should have the ability to be saved in electronic format. The data generated from these reports shall be exportable to 'off the shelf' database or reporting software. These files should also be backed up to a removable medium such as floppy disk or CD for secure storage.

An ODBC compliant database will be used to store all data and a schema will be furnished with the system sufficient for an experienced user to access the data using common tools such as Crystal Reports.

Options

There are no options for this bid item.

COUNTY JOINT BID PROGRAM

PURCHASE PROCEDURES

Effective January 1, 2008

All purchases by counties pursuant to the County Joint Bid Program shall be made by (1) mailing or faxing the appropriate Purchase Order to the vendor who has been awarded the contract for the item to be ordered **and** (2) faxing a copy of the Purchase Order to the Association of County Commissions of Alabama (ACCA) office at 334-263-7678. Purchase Order Forms and all necessary information regarding the vendor and items available can be obtained at the ACCA website (www.acca-online.org).

Each purchase order shall be signed by the person authorized by the county to sign and shall include the County Joint Bid Program Item Number. A copy of the form submitted shall be retained by the county.

The county shall deal directly with the company representative for the vendor in making purchases under this program. The vendor shall complete all orders in compliance with its agreement under the program, and shall deal directly with each county in processing and completing their orders and in complying with service and warranty requirements. Road sign vendors should keep in mind that they are required to deliver all items to the location identified by the county ordering them within thirty (30) calendar days from the date of order, and the cost of any items not delivered within this time period will be reduced in price by 10%.

It is important to remember that under *Code of Alabama 1975, § 41-16-50(b)*, all purchases made pursuant to this program shall be subject to the terms and conditions of Alabama's Competitive Bid Law. Therefore, counties are only authorized to purchase the specific items awarded under the program according to the bid specifications and must comply with these procedures in placing all orders.

There can be no deletions or additions to items purchased under this program, except as specifically provided for in the bid specifications. Optional equipment authorized under the bid specifications on certain heavy equipment orders may be deleted by the county at the time of purchase, and in that event, the cost of that item as provided by the vendor shall be deducted from the total cost of the item.

