

INVITATION FOR BID (IFB)
911 DATA LOGGING RECORDER

January 5, 2011

General

Lancaster County is seeking bids for replacement of a 911 data logging recorder for capturing and retrieving data from radio and telephone transmissions. The current recorder is a Racal Mirra recorder, with 36 channel capability. The equipment must be of quality and design to properly service a full service 911 center in a 24/7 environment. We currently record fire, rescue and police radio traffic along with 4 administrative lines, 4 E-911 cellular lines and 4 E-911 land lines. The system must be capable of recording analog, digital, VoIP, and RoIP.

Bids must be received at the Office of the Lancaster County Administrator no later than **4:00 PM on Friday, February 3, 2012**. An acceptable bid must include properly completed documents attached as **Appendices A, B, and C**. Any questions regarding this Invitation for Bids should be directed to:

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Lancaster County Sheriff's Office
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Bids submitted in response to this solicitation will be opened in the Office of the County Administrator at 4:00 PM on Friday, February 3, 2012. Interested parties are welcome to observe the opening but a decision will not be made nor opinion offered until final review by the Lancaster County Sheriff and Board of Supervisors.

Lancaster County reserves the right to reject any or all bids and waive any formalities.

Scope of Work

Communication Centers pose unique challenges and demands. The challenge of retrieving information from emergency callers is critical. Information needs to be relayed to first responders accurately and quickly. Call takers need immediate playback capability to obtain this information at times. Voice recordings are also crucial to criminal and civil cases in the court system. The bidder will provide non-proprietary head end equipment to capture the forms of voice data used by Lancaster County Sheriff's Office. The bidder will certify all equipment is performing to specifications and expectations of the Lancaster County Sheriff's Office.

Any deviation from the specification requirements outlined below must be submitted in writing. A "Scope of Deviations" statement will hold the proposing bidder strictly accountable to the specifications as written herein and may cause the bid to be rejected as non-responsive.

Specifications

1 General

1.1 The bidder must include a copy of this document with their response.

Each specification in this document following must contain one of three compliance certifications:

- "Fully Comply" (indicating full compliance with the requirement)
- "Partially Comply" (indicating partial compliance with the requirement)
- "Does Not Comply" (indicating non-compliance with the requirement)

1.2 The System shall be configured and licensed to record devices.

1.3 The system shall be capable of recording any combination of inputs within the same chassis. At a minimum these shall include analog, VoIP (SIP as well as proprietary formats from major manufacturers such as Cisco, Nortel, Avaya, Etc), RoIP (radio over IP to include standard SIP as well as Motorola P25 trunked or conventional, Zetron and Telex), proprietary digital phones to include all major manufacturers, T1, E1, ISDN.

1.4 The system shall be capable of recording any combination of the formats listed in 1.3 within a single chassis and shall be field upgradable for expansion.

1.5 The recorder must have 48 channel analog capability. The equipment furnished under this specification must be designed for continuous duty operation.

2 System Software Requirements

2.1 For the purpose of System uniformity the Recorder must meet the following requirements.

- a. The recording System must be running Microsoft Windows 7 Professional 64 bit native operating System. Systems running operating Systems other than these will not qualify.
- b. The System must not require the use of a database for the call records.
- c. The System must be designed within the NET Framework version 4.0 or higher.

2.2 System stability, resiliency and reliability:

- a. The System must be fully operational including full functionality from all remote workstation client software Applications even while the Recorder Server is not logged in to Windows.
- b. All critical system operations must run as Services within the operating system rather than a software application or program.

2.3 To minimize network traffic audio playback and live monitoring must

be achieved through current Audio Streaming technology.

- a. Audio Streaming shall not exceed 16KBps regardless of the number of channels being played back or live monitored at the same time.

3 System Hardware Requirements:

3.1 The system must be manufactured and supplied using 100% C.O.T.S.

(commercial-off-the-shelf) hardware. Systems using any type of proprietary or non-industry standard hardware will not be considered. Please provide and include with this RFP a complete list of all hardware to be supplied with the system must be provided.

3.2 The system must be an Intel based system with the system processor

With an i3 or better processor installed.

3.3 The system hardware must be completely comprised of materials

Which meet universally accepted computer industry standards to include nonproprietary mechanical hardware design. This includes, but is not

- limited to the recorder server chassis, motherboard or passive backplane, power supplies, etc.
- 3.4 All circuit cards used in the system must be PCI or PCI Express. No Systems using ISA or other format or bus types will be considered.
 - 3.5 The system must be supplied complete with all hardware and software necessary to complete a functional system.
 - 3.6 In addition to the Recorder Server chassis the system must also be supplied at a minimum with a 19" TFT flat panel wide format monitor, keyboard, optical mouse and speakers.
 - 3.7 The Recorder Server must be housed in a single chassis. Systems requiring multiple chassis, housings or electronic modules shall not be considered. List Recorder Server chassis options on system pricing pages.
 - 3.8 The Recorder System must be supplied with at least RAID 5 or higher redundant hard drives, either standard or as listed options. Each recording module hard drive must be capable of storing up to 80,000 channel hours, available for immediate playback without the need of exchanging media. If optional these options must be listed, and may at the discretion of the agency be included in the price for bid evaluation purposes.
 - 3.9 For security and integrity purposes, it must not be possible to manually delete specific individual messages from the VRS hard drives.
 - 3.10 The system must automatically perform data backup (referred to as archiving) of records to a secure network.
 - 3.11 When the media is full, the system should alarm to notify the administrator that the media needs changing.
 - 3.12 There should not be a practical limit to the amount of storage on the archived data for retrieval, nor the ability to automatically search and play these files through a fully automated interface.
 - 3.13 For the purpose of following industry standards and maintaining high quality audio and keeping with storage efficiency the audio storage format shall be non-proprietary.
 - 3.14 All hard drives shall be Enterprise Class SATA or SAS. State brand, Model and capacity of hard drives to be supplied. As a standard feature the hard drives shall be listed as hot-swap.
 - 3.15 For reasons of maintainability, integrity and reliability the RAID Controller shall be hardware based and not integrated on the motherboard. Bidder must state make and model of RAID controller to be used.
 - 3.16 The system settings and adjustments must be software driven

through a fully integrated administration user interface.

4 User Interfacing

- 4.1 The user or administrator must be able to perform any and all basic and advanced operations directly from the Recorder Server local interface or from a remote client workstation.
- 4.2 All user and administrative interfaces must be identical in look, feel and operation when accessed from the local Recorder Server or from a client workstation.
- 4.3 User and administrative interfaces available at the Recorder Server must also be offered as client software which can be accessed and use in the identical manner from any client workstation running Windows XP Professional, Vista or Windows 7 Professional.
- 4.4 Client software must be fully functional with a secure firewall between the Recorder Server and the client workstations. List and explain any requirements necessary to comply with this item.
- 4.5 The Recorder Server must be capable of search and replay client applications such as displaying calls geographically, by channel name or channel number. The bidder shall provide an actual screenshot in .jpeg format depicting calls being graphically displayed.
- 4.6 The user must have the capability to select any number or combination of recordings from any number or combination of channels to be replayed in a synchronized mode, allowing effective scenario reconstruction. This shall mean that any event can be easily reconstructed including all recordings associated with the event while excluding the recordings not associated with the event, with or without silence inserted.
- 4.7 An event that is reconstructed as described in 4.6 above, shall give the user in a single action, the ability to save or copy the entire incident as individual files or as a combined single file through the use of a fully integrated industry standard Windows “save as” screen with the familiar choices of where to save the file to any drive, folder or file available to that PC, to name the files as desired and to choose standard, non-proprietary file formats. These files must be familiar to Windows Media Player.
- 4.8 The Recorder Server application must allow users to search on the following criteria, individually, in any combination (Boolean) and supporting but not limited to the following wild cards:
 - Time and Date

- Extension Number
- Condition code (incoming or outgoing)
- Dialed Number
- Calling Number
- Annotation- user specific notes

It must be possible to combine any number of search criteria elements into one search function to provide complex but efficient system-wide searching capability.

- 4.9 When an incident is reconstructed, the user shall have the ability in a single action to e-mail the selection directly from the application user interface.
- 4.10 The Recorder Server search and replay application must be able to convert and save the audio from a custom multi-channel search into a single stereo.wav, .wma file.
- 4.11 The Recorder Server search and replay application must support spoken time and date.
- Spoken time/date must be synchronized to recorder time.
Spoken time/date can be saved to one of the stereo channels in a .wav file. The spoken date and time must also be exported if the recordings are exported or burned to CD or DVD.
- 4.12 The Recorder Server must have the ability to toggle Automatic Gain Control (AGC) on and off during replay.
- 4.13 The Recorder Server search and replay application must provide the capability to text annotate selected recordings. The annotation field will be at least 4000 characters in length and allow 10 such entries per recording. The search and replay application must allow the user to search on text within the annotation field.
- 4.14 The system must allow the user to set flags (markers) within a recording. In addition, the search and replay tool must be capable of graphically displaying the flags within the recording.
- 4.15 The system must be able to provide instant recall client software which is fully integrated with the master database so that a client workstations running the instant recall software have the ability to play any combination of channels as offered by the system administrator. The interface shall allow users to play recordings while still in progress and to tag calls with multiple fields of user definable data for later identification

and search through the player interface. Individual users shall have a single click playback of any number of channels assigned by the administrator.

- 4.16 The instant recall client shall not require any hardware at the client Workstation other than the agency supplied PC with a sound card and speakers.
- 4.17 The player interface and instant recall interface functions shall include at a minimum : Play, Stop, Skip forward, Skip back, Pause, user definable loop play, Speed Up and Slow Down playback speed with pitch control.
- 4.18 The system shall provide a linear search capability that can be used with a simple click and drag operation not requiring the use of a keyboard.
- 4.19 The system shall provide detailed advanced search capability. The User shall have the ability to enter any criteria associated with the recordings in a single search bar identical to an internet search. To perform the search it should not be necessary to enter search criteria in multiple and/or independent fields.
- 4.20 The Recorder Server interface shall have a fully integrated function which will print and save the player screen.
- 4.21 The user shall have the ability to simply drag through any portion of a recording.
- 4.22 When a playlist is created the user shall have the ability to click and drag recordings into and out of the playlist folder from within the client interface. The user will have the capability to choose if the folder will be restricted for viewing only by a certain user, or to be open to all users. The user should have the ability to display the playlists in tubular view or a graphic timeline with a zoom control.
- 4.23 The bidder shall optionally provide screen recording. When screen recording is operating, the user shall have the ability to save recordings with the active screen recorded and to save the recordings with or without the screen recording. The saved video file shall be a standard AVI file type.
- a. Screen capture and audio shall be exported to a file or burned directly to a CD or DVD without the need for third party software.
- 4.24 The bidder shall provide the user with the ability to select and mute a portion of the recording to be exported or saved.
- 4.25 The bidder shall provide the ability to create and share playlists.
- a. Playlists shall be either public or private.

- b. Public playlists should be accessible by any user with proper authorization.
 - c. Recordings and other media including screen captures should be able to be dragged and dropped into selected playlists.
 - d. Playlists should be able to be exported or burned directly to CD or DVD without third party software burning applications.
 - e. The Player must provide the user with the ability to view all calls included in the playlist in a multi-channel view.
 - f. The player must provide the user with the ability to export multiple recordings in real time for true scenario reconstruction.
 - g. Online storage is required for a minimum of 45 days for fast retrieval.
- 4.26 The bidder shall provide the ability create a screen shot to show the call records listed in the main screen view.
- 4.27 The recorder system shall be capable of capturing and storing NENA Standard ANI/ALI.
- 4.28 The bidder must provide an application which plots E-911 calls from The NENA standard ANI/ALI data on a map.
- 4.29 The bidder shall provide the recorder with the ability to provide an instant recall software application. The instant recall software application must be configurable to allow a select phone, select audio, and an unlimited number of unselected audio channels for instant playback. The call taker shall have the ability to tag a recording simply by typing in a text box. The tagged information must be stored with the call record.

5 Security

- 5.1 The bidder must provide configurable security to include unique security accounts allowing operators to access only specified channels with specified functions.
- 5.2 The recorder must support a configurable security methodology which prevents unauthorized users from replaying media.
- 5.3 The bidder will provide a means to automatically replicate and stored a copy of the database outside the recorder and provide a secure database backup in the event the database becomes damaged.

6 Next Generation 911

- 6.1 The bidder must assure recorder is compatible with Next Generation 911 standards. The recorder must have the ability to capture and

reproduce new public safety data sources as proposed in the Next Generation 911 standards. The vendor must show their ability to meet these new standards without a change of hardware.

- 6.2 The recording platform compatible with Next Generation 911 Standards must capture and simultaneously reproduce additional data sources from cell phones including location data, photographs, text messaging and video. It must also capture telematics (OnStar), CAD, GIS, desktop screens, mapping data and email.

7 Electrical Requirements

- 7.1 Each recorder recording module must be fitted with a hop swap AC power supply.
- 7.2 The bidder will provide a line conditioning direct UPS for the recorder system. The UPS shall allow full operation of the recorder for a minimum of 20 minutes following a loss of electric power.
- 7.3 The bidder shall provide a cost for lightening protection between A/C power and the recorder and protection between the network hub or router and the recorder as a safety precaution. These options will be listed as an option and priced separately.

8 Warranty and Vendor Experience

- 8.1 The bidder shall explain in detail the recorder warranty coverage, the method by which warranty service will be performed. Who will perform the recorder warranty and extended service support. The geographical area the technical support is based and estimated time of travel to our facility.
- 8.2 The bidder must supply what type of service access is provided. It is preferred that the vendor supply a 24 hour toll free number manned by qualified factory technical support. Please list methods of support if not as listed above.
- 8.3 The bidder must provide free loaner equipment, so long as Lancaster County Sheriff's Office is under a maintenance contract with providing vendor, should the recording equipment become defective or damaged for any reason.
- 8.4 The bidder shall provide proof of technical experience by providing a BIOS of technicians that may work on equipment at Lancaster County Sheriff's Office. BIOS should include list of certifications and experience working with voice recorders. Technician shall be factory certified on the product provided by vendor in RFP.
- 8.5 The bidder shall provide at least seven Virginia agency references. The References must be provided from independent third party evaluators. The references will be recent, comparative ratings/evaluations.
- 8.6 The bidder shall list any other options not listed in RFP for technical

support such as 24 hour monitoring, remote access, extended warranties etc.

- 8.7 A performance bond of at least \$60,000 will be provided as part of the bid package.

9 Training

- 9.1 The Bidder must supply under this IFB a turn-key installation of the System to include all hardware, software, installation materials, cable Terminal blocks, travel, labor, training and any other expenses associated with the fulfillment of the contract.
- 9.2 All installation work must satisfy requirements of the Lancaster County Sheriff's Office and its agents. This work must be of the highest standards and shall conform to industry standards.
- 9.3 Installation will be done by certified personnel trained and certified by manufacturer standards.
- 9.4 The bidder shall provide manufacturer certified training personnel at no additional cost to the Lancaster County Sheriff's Office.
- 9.5 The Lancaster County Sheriff's Office shall provide an adequate location for the recorder to include rack space if available and a network connection.