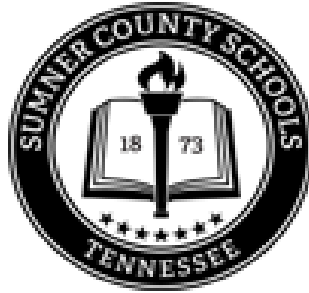# PROPOSAL REQUEST

**Multi-Site IP based consolidated Countywide Dispatch Console System
Supervisory Control and Data Acquisition (SCADA) system Microwave Backhaul and
Commissioning Services
Sumner County Emergence Management**

SUMNER COUNTY BOARD OF EDUCATION
SUMNER COUNTY, TENNESSEE

Bid # 20170314-CO

This proposal solicitation document is available in an Adobe Acrobat (pdf) format. Any alterations to this document made by the proposer may be grounds for rejection of proposal, cancellation of any subsequent award, or any other legal remedies available to the Sumner County Board of Education.

Introduction

Sumner County Government, or herein known as "Sumner County", is hereby requesting a proposal for Multi-Site based, consolidated Countywide Dispatch Console System.   Supervisory Control and Data Acquisition (SCADA) system Microwave Backhaul and Commission Services for Sumner County Emergency Management 255 Airport Road Gallatin, TN 37066 In addition, all other Sumner County Government Departments and Agencies may also purchase for any submitted proposal.

General Information

I.   **Proposal Package**

All sealed proposal packages must include all of the following, when applicable. <u>Any sealed proposals shall be rejected as a non-conforming bid if any applicable item is missing.</u>

- Three (3) complete copies of proposal
- Evidence of a valid State of Tennessee Business License and/or Sumner County Business License
- Evidence of compliance with the Sumner County Insurance Requirements, if work is performed on Sumner County Property
- Signed and completed <u>Statement of Non-Collusion</u> (Attachment 1)
- Properly completed Internal Revenue Service Form W-9
- Evidence of a company's safety program and, if supported, a drug testing program (Attachment 2) <u>Drug-Free Workplace Affidavit</u>
- If bid is in excess of $25,000, a certification of non-debarment must be completed (Attachment 3) <u>Certification Regarding Debarment, Suspension, and Other Responsibility Matters</u>
- Certification By Contractor (Attachment 4)

NEW VENDORS

1.   To comply with Internal Revenue Service requirements, all vendors who perform any type of service are required to have a current IRS Form W-9 on file with the Sumner County. At the time of requisition, the individual requesting a purchase order or disbursement will be informed if it is a new vendor and if a form W-9 is required. If form W-9 is required for a new vendor, the department head shall forward a completed form W -9 to the finance department. It can be obtained from the Internal Revenue Service's website at www.irs.gov.

2.   To comply with the Tennessee Lawful Employment Act, non-employees (individuals hired as independent contractors) must have on file any 2m: of the following documents.

- Valid Tennessee driver license or photo ID issued by department of safety
- Valid out-of-state driver license
- U.S. birth certificate
- Valid U.S. passport
- U.S. certificate of birth abroad
- Report of birth abroad of a U.S. citizen
- Certificate of citizenship
- Certificate of naturalization
- U.S. citizen identification card
- Valid alien registration documentation or proof of current immigration registration

- 3. In addition, for all vendors with annual purchases in excess of $50,000 (if a business license is required), a business license must be on file in the finance department, or the requisitioner must submit a copy with the purchase order requisition form or the payment requisition form, as applicable.

Responses
- Proposal must include point-by-point responses to the RFP.
- Proposal must include a list of any exceptions to the requirements.
- Proposal must include the legal name of the vendor and must be signed by a person or persons legally authorized to bind the vendor to a contract.
- If applicable, proposal must include a copy of the contract(s) the vendor will submit to be signed.
- Any and all proposal requirements must be met prior to submission.
- The bidder understands and accepts the non-appropriation of funds provision of the Sumner County Government.
- If noted in the section "proposal requirements" or later requested, the contractor will be required to provide a reference list of clients that have a current contract for services with their company.

II.   Clarification and Interpretation of RFP

The words "must" and "shall" in this Request for Proposal indicate mandatory requirements. Taking exception to any mandatory requirement shall be grounds for rejection of the proposal. There are other requirements that Sumner County considers important but not mandatory. It is important to respond in a concise manner to each section of this document and submit an itemized list of all exceptions.

In the event that any interested vendor finds any part of the listed specifications, terms, or conditions to be discrepant, incomplete, or otherwise questionable in any respect, it shall be the responsibility of the concerned party to notify Sumner County, via email at vicky.currey@sumnerschools.org, of such matters immediately upon receipt of this Request for Proposal. All questions must be received a minimum of five days before proposal's "deadline". All responses to inquiries will be posted on the School System website (http://www.sumnerschools.org) under "Invitation to Bid" and Sumner County website at www.sumnertn.org.

III.   Proposal Guarantee

Vendors must guarantee that all information included in their proposal will remain valid for a period of 90 days from the date of proposal opening to allow for evaluation of all proposals.

IV.   Related Costs

Sumner County is not responsible for any costs incurred by any vendor pursuant to the Request for Proposal. The vendor shall be responsible for all costs incurred in connection with the preparation and submission of its proposal.

V.   Insurance Requirements and Liability

Each bidder or respondent to the RFP who may have employees, contractors, or agents working on Sumner County properties shall provide copies of current certificates for general and professional liability insurance and for workers' compensation of a minimum of $250,000. The owner or principal of each respondent must also be insured by workers' compensation if they perform any of the services on School System properties. There will be no exceptions to the insurance requirement.

VI.   Payment Terms

Payment terms shall be specified in the bid response, including any discounts for early payment. All payments, unless agreed upon differently, will be after receipt of service or product and School System's approval of conformance with specifications.

VII.   Deadline

Sealed proposals accepted until **March 14, 2017 @ 10:00 a.m.** local time. Proposals received after that time will be deemed invalid and returned unopened to the vendor. Vendors mailing proposal packages must allow sufficient time to ensure receipt of their package by the time specified. There will be no exceptions.

VIII.   Withdrawal or Modification of Proposal

A withdrawn proposal may be resubmitted up to the time designated for the receipt of proposals provided that it fully conforms to the same general terms and requirements.

IX.   Package

The package containing the proposal must be sealed and clearly marked**. Multi-Site IP base, consolidated Countywide Dispatch Console System the Sumner County Emergency Management BID 20170314-CO**" on the outside of the package. Responses may be hand delivered or mailed to the following address.

> Sumner County Board of Education
> Attn: Purchasing Supervisor
> 1500 Airport Road
> Gallatin, TN 37066

X.   Right to Seek a New Proposal

The Sumner County reserves the right to accept or reject any and all proposals for any reason. Proposals will be awarded to the best overall respondent as determined by that which is in the best interests of Sumner County.

Procedures for Evaluating Proposals and Awarding Contract

In comparing the responses to this RFP and making awards, Sumner County may consider such factors as quality and thoroughness of a proposal, the record of experience, the references of the respondents, and the integrity, performance, and assurances in the proposal in addition to that of the proposal price.

- Proposals will be examined for compliance with all requirements set forth herein.
- Proposals that do not comply shall be rejected without further evaluation.
- Proposals will be subjected to a technical analysis and evaluation.
- Oral presentations and written questions for further clarifications may be required of some or all vendors.

XI. Discussions

Discussions may be conducted with the vendors which have submitted proposals determined to be reasonably likely of being considered for selection to assure a full understanding of and responsiveness to the RFP requirements. Every effort shall be afforded to assure fair and equal treatment with respect to the opportunity for discussion and/or revision of their respective proposals. Revisions may be permitted after the submission and prior to the award for the purpose of obtaining the best offers.

XII. Open Records

After the bid is awarded, all proposals will be subject to the Tennessee Open Records Act, and the proposals will be available to the public upon written request.

Summary information on bids submitted will be posted on the School System website at http://www.sumnerschools.org County Website www.sumnertn.org under the Bids" link.

XIII. Assignment

Neither the vendor nor School System may assign this agreement without prior written consent of the other party.

XIV. Liabilities

The vendor shall indemnify Sumner County against liability for any suits, actions, or claims of any character arising from or relating to the performance under this contract by the vendor or its subcontractors.

Sumner County has no obligation for the payment of any judgment or the settlement of any claim made against the vendor or its subcontractors as a result of obligations under this contract.

XV. Tax Status

Sumner County Government is tax exempt

XVI. Invoicing

All invoices will be submitted to

Rhonda Lea
Sumner County Emergency Communications Center
255 Airport Road
Gallatin TN 37066

The vendor must provide an invoice(s) detailing the terms and amounts due and the dates due. All invoices shall indicate payment terms and any prepayment discounts.

XVII. Contract Nullification

Sumner County may, at any time, nullify the agreement if, in the judgment of Sumner County, the contractor(s) has failed to comply with the terms of the agreement. In the event of nullification, any payment due in arrears will be made to the contractor(s), but no further sums shall be owed to the contractor(s). The agreement between Sumner County and the contractor(s) is contingent upon an approved annual budget allotment, and is subject, with thirty (30) days notification, to restrictions or cancellation if budget adjustments are deemed necessary by Sumner County.

XVIII. Applicable Law

Sumner County, Tennessee is an equal opportunity employer. Sumner County does not discriminate towards any individual or business on the basis of race, sex, color, age, religion, national origin, disability or veteran status.

The successful contractor(s) agrees that they shall comply with all local, state, and federal law statutes, rules, and regulations including, but not limited to, the Rehabilitation Act of 1973 and the Americans with Disabilities Act.

In the event that any claims should arise with regards to this contract for a violation of any such local, state, or federal law, statues, rules, or regulations, the provider will indemnify and hold Sumner County harmless for any damages, including court costs or attorney fees, which might be incurred.

Any contract will be interpreted under the laws and statutes of the state of Tennessee.

Sumner County does not enter into contracts which provide for mediation or arbitration.

Any action arising from any contract made from these specifications shall be brought in the state courts in Sumner County, Tennessee or in the United States Federal District Court for the Middle District of Tennessee.

Additionally, it is a violation of state statues to purchase materials, supplies, services, or any other item from a vendor that is a commissioner, official, employee, or board member that has any financial or beneficial interest in such transaction

REQUEST FOR PROPOSAL

For

Multi-Site, IP based, consolidated county wide Dispatch Console System Supervisory Control and Data Acquisition (SCADA) system Microwave Backhaul

And

Commissioning Services

For

Sumner County Emergency Management

Publication Date:

TBD

Address Inquiries to:

Vincent Riley
Sumner County EMS
Email: vriley@sumnerems.org
Phone: (615)-451-0429 ext 119

Or

Ken Weidner
Sumner County EMA
Email: kweidner@sumnerema.org
Phone: (615) 452-7584

BACKGROUND

The Sumner County Emergency Communications Center is currently building a new consolidated communications center that will provide dispatch facilities for multiple public safety agencies. This RFP seeks proposals for a turn-key, multi-site IP based radio dispatch console system including design, programming, installation and commissioning services at the new Sumner County Emergency Communications Center with an option for a backup site located at the current Hendersonville Police Department Dispatch. Sumner County will provide connectivity between the two sites via Ethernet Technology at a throughput speed suitable for reliable performance. The two sites will then be able to share all the available console resources at each location. These agencies are highly motivated in looking at the highest quality and standards for the protection of public safety personnel. This RFP will be awarded based on the lowest and best bid that meets the needs of the county to ensure the health, safety and welfare of the public as required. The Sumner County Emergency Communications Center reserves the right to evaluate and choose the best package with the highest quality craftsmanship, references and price. All responses to this RFP must be consistent with its scope and most importantly, legible. Bids that are submitted with handwritten response or hand stamped responses shall be automatically rejected as being non-compliant.

PROJECT DESCRIPTION

This project is to provide collective county-wide public safety radio dispatch communications for Sumner County, TN including but not limited to the following agencies:

- Sumner County Sheriff's Department
- Sumner County Emergency Management
- Sumner County Emergency Medical Services
- Gallatin Police Department
- Gallatin Fire Department
- Hendersonville Police Department
- Hendersonville Fire Department
- Portland Police Department
- Portland Fire Department
- Westmoreland Police Department
- Westmoreland Fire Department
- Intercity
- TMAC
- TACN
- Number One Fire Department
- Shackle Island Fire Department
- Robertson County Fire Department
- EMS 155.205 (State Hospital VHF)
- Gallatin Electric Department

SCOPE OF WORK

This project consists of designing a consolidated radio dispatch console system providing for the current needs of the agencies listed in the overview as well as provisions for system growth as the need in Sumner County increase. Internet protocol design connectivity and compatibility with current and future communications systems is mandatory.

Major Items to be furnished by the Successful Vendor

The proposal shall include but is not necessarily limited to providing all items detailed on the proposal form. All other items required shall be furnished to provide a functional system as contemplated in the specifications. The successful Contractor shall provide the following goods and services:

The Dispatch System must consist of but not limited to the following items:

Site #1, Sumner County Consolidated Emergency Communications Center

Twenty-Four (24) complete console positions, each having full control of any or all equipment within the entire console system network.

Internet Protocol interface devices to support up to but not limited to forty (40) control station radios.

Internet Protocol interface devices to support remote control of external devices such as but not limited to door locks, camera control and radio system linking.

System must be capable of interface to current and / or future 911 telephone systems to provide common audio headset for both phone and radio. (Current 911 System is Tritech)

Sumner County Emergency Communications Center will supply the necessary computer monitors for the hardware for the Windows based computers.

Site #2, Hendersonville Police Dispatch (OPTIONAL Back-up Site)

Eight (8) complete console positions, each having full control of any or all equipment within the entire console system network.

Internet Protocol interface devices to support up to but not limited to twenty (20) control station radios.

Internet Protocol interface devices to support remote control of external devices such as but not limited to door locks, camera control and radio system linking. System must be capable of interface to current and / or future 911 telephone systems to provide common audio headset for both phone and radio. (Current 911 System is Tritech)

Sumner County Emergency Communications Center will supply the necessary computer monitors for the hardware for the Windows based computers.

Dispatch Console requirements:

The Dispatch System must support the following radio interfaces:

1) Local – Direct connection to fixed radio resources, supporting TX/RX audio paths, Channel change (Logic, BCD or Serial), PTT and COR logics.
2) Tone – Generation of industry standard PTT tones on 2 or 4 wire circuits.
3) E&M – 6 wire interfaces, balanced TX/RX audios, PTT and COR Logics.
4) P25 DFSI - Support the TIA-102 BAHA Fixed Station Interface (FSI) standard.
5) P25 AFSI – Support Analog Fixed Station Interface, using either EF Johnson, Kenwood or Tait mobile radios.
6) Motorola MOTOTRBO – Analog, Digital, Capacity Plus, Linked Capacity Plus and Connect Plus.
7) Kenwood NEXEDGE Trunking & Conventional Direct IP Interface.
8) DMR – NXDN and IDAS
9) iDEN – Motorola Harmony and SouthernLINC systems.
10) SDC – Sprint Direct Connect using AdvanceTec AdvanceBridge phone modem.
11) TETRA – Support Sepura, Hytera or PowerTrunk mobile radio interfaces.

The GUI based dispatch console must support the following basic functions:

1) The console must function on a standalone computer with its only connection for radio control being IP network based.
2) The console must operate on either Windows WIN7, WIN 8.1 Professional, or Windows 10, 64 Bit supported.
3) The console must support standard commercial LCD and Touch screens ranging from 15" in size and up.
4) The console must support up to 200 lines of audio sources with unlimited number of consoles.
5) The console must support multiple audio compression Vocoders.
6) The console must overcome network latency and packet loss; the use of jitter/packet buffers is an acceptable means to overcome this issue.
7) The console must be completely configurable in terms of its look and feel. Required user definable elements must include: Button color in up and down positions, text color in up and down positions, text in up and down positions, icon in up and down position, button border color, and button font typeface and size.
8) The console must be able to create logical groupings of buttons to be hidden in windows that can be accessed as required by the dispatcher. The ability to open these button windows on activity must be supported.

9) The console must be completely configurable in the ability for a Dispatcher to close, move, resize, minimize or maximize the console application.
10) The console must preclude a Dispatcher from changing screen designs.
11) The console must support inserting visual frames for enhanced screen designs.
12) The console must support using standard PC speaker sets. Up to 3 sets or 6 total speakers supported.
13) The console must display ANI for Kenwood Fleetsync, Motorola MDC1200, DTMF, iDEN, P25, MOTOTRBO, TETRA, NXDN and IDAS.

The GUI based dispatch console must support the following basic features:

1) The console must support Per-Line Select, channel change, volume control, Mute and Instant PTT (Push to Talk)
2) The console must support Group Select and TX ALL.
3) The console must support Master Select and UnSelected volume controls.
4) The console must support Crosspatches (up to 30 supported concurrent), manual selection and preconfigured patch groups must be supported.
5) The console must support Parallel console TX Monitor, Crossmute functions.
6) The console must support Supervisory line takeover function, password support must be required.
7) The console must support Intercom function.
8) The console must support Monitor (CTCSS), open Squelch functions when using either an on-screen button or external input logic.
9) The console must support Mute of individual, All, and pre-programmed groups of lines.
10) The console must support a Master PTT function, pressing will key and route microphone audio to selected line(s). Using keyboard spacebar, foot switch or PTT button on screen are acceptable methods to accomplish feature.
11) The console must support a Last Call PTT function, pressing this button will transmit on the last active channel.
12) The console must have the ability to execute (run) other applications via a button press.
13) The console must support Scan control on radios supporting scan. The console must also update its display based on the channel upon which the radios stops scanning to play receive audio. Note: Function requires radio with scan function and advanced interface to retrieve channel information during Scan stop.
14) The console must support Coded/Clear (Encryption) control on radios supporting this feature. Note: Function requires radio with Encryption function and advanced interface to operate.
15) The console must support an RX Block feature, used to mute other geography separated lines with same RF frequency from feeding back into console during PTT operation. An RX Block Off delay timer must be supported for network latency.

16) The console must support Primary and backup line options for redundant radio connections. Console must be able to display which line is currently active and allow for manual or automatic switching of radio control.

17) The console must support remote relay closure and input monitoring via network devices.

18) The console must support the display of web pages with a variable refresh interval.

19) The console must support "Text Window" to support text messaging supported by Kenwood NEXEDGE and FleetSync and MotoTRBO.

20) The console must support the display of single or multiple clocks, these shall include definable 12/24 hour and dates format views.

21) The console must support a "Call Queue Window", the window shall support received field radio based alerts or calls and be placed into a call queue for managed dispatcher replys.

The GUI based dispatch console must support the following Audio routing features:

1) The console must support connection of up to three standard dual ¼" (PJ-7) prong dispatch style headsets and any of the following microphone types: Desktop and Gooseneck. Each must have independently steered audio via its integral PTT switch, Footswitch operation must be supported.

2) The console must support connection of NENA audio interfaces (per NENA Technical Document NENA-04-001). When connected and off-hook, all microphone/headset audio must be routed to the phone (NENA port), except during PTT operations when selected radio line(s) must be routed microphone audio.

3) The console must support the ability to operate in Full Duplex.

4) The console must support the ability to sum Selected and Unselected audio to the headset, Mute both Unselect and Select RX audio during PTT operation.

5) The console must support the ability to route RX audio to any of 6 speakers.

The GUI based dispatch console must support the following Telephone features:

1) The console must support telephone resources accessible on the network. Connection to a SIP Server must be supported.

2) The console must support the following standard Telephone features: On/Off-Hook, Flash-hook, Call Park, Mute, Autodial and Volume control.

3) The console must support a store and forward function for Telephone dialing.

4) The console must support a phone book directory with up to 6000 users.

The GUI based dispatch console must support the following Group and Crosspatch features:

1) The console must support Pre-programmed Crosspatches – The ability to create a pre-determined crosspatch with the press of one button.
2) The console must support the following Crosspatch operations: Setup, Teardown, PTT and Block.
3) The console must support dispatcher selected Simulcast groups.
4) The console must support Pre-programmed groupings (Simul-selection) of lines that can be activated with a single button push.

The GUI based dispatch console must support the following Emergency Call features:

1) The console must support Emergency functions including audible and visual alarms of a supported ANI emergency call from the field. Acknowledge and Resolve features must be supported. Supported formats are; P25, MOTOTRBO, NXDN, MDC1200, FleetSync, iDEN, TETRA, DTMF and 5/6 Tone.
2) The console must support Active Emergency Call and Emergency Call History windows.

The GUI based dispatch console must support the following IRR and Call History features:

1) The console must support Instant Recall Recorder (IRR) with a minimum of 10 minutes of both select and unselect RX audio. Audio must be accessible on a call by call basis from the call history screen, or by pressing a button to play the last X seconds of audio, where X is between 1 and 600 seconds.
2) The console must support a Global Call History window and must show the following information: Date, Time, Frequency and ANI information. The feature to playback any audio stored for the last 10 minutes of calls must be supported.
3) The console must support Per-Line Call History windows; these must show the following information: Date, Time, Frequency, Status and ANI information.
4) The console must support as an option, Per-Line Call Playback for up to 100 lines in the console. Each line will support 60 minutes of audio recording with the ability to Pin and Comment the audio file.

The GUI based dispatch console must support the following Over the Air (MSK or DTMF) ANI Decode and Encode features:

1) The console must support the following ANI formats: MDC1200, FleetSync, DTMF and 5/6 Tone.
2) The console must display ANI values as either the number itself or by an alias table lookup. The information must be programmable to remain on the line select button until the next call is received.

3)	The console must support encoding of Motorola MDC1200 messages; Messages must include; ANI, Status, Stun, Revive, Selective Call, Remote Monitor, Emergency Receive and Acknowledge.

4)	The console must support encoding Kenwood FleetSync messages; Messages must include; ANI, Emergency Receive, Status, Text, Stun, Revive and Selective Call.

5)	The console must support encoding DTMF and 5/6-Tone messages; Messages must include; ANI, Status, Emergency Receive, Group and Selective Calls.

The GUI based dispatch console must support the following Paging, Alert Tone and Annunciation (.wav) features:

1)	The console must support the following paging formats: DTMF, Knox, Quickcall II, 5/6 Tone and manually entered tones must be supported. One Touch, Paging Stack and Send functions must also be supported.

2)	The console must support Alert tones with the following audio formats: Constant tone, Pulsed tone, and Hi-Lo warble. Timing and frequencies must be variable.

3)	The console must support Per-line Marker Tone generation; timing and frequencies must be variable

4)	The console must support playing Annunciation files to selected or pre-programmed lines when button is pressed or directed by Input logic.

The GUI based dispatch console must support as an option compatibility with the TIA-102 BAHA Fixed Station Interface (FSI) standard or P25 DFSI functionally:

1)	The console must support the ability to select transmitter and receiver channel, including NAC code and Talkgroup.

2)	The console must support the ability to Display selected channel name in alpha-numeric format.

3)	The console must support the ability to Display active received channel(s).

4)	The console must support the ability to Display received mode (digital or analog) and signal status (clear or encrypted).

5)	The console must support the ability to Display received NAC code in hexadecimal format and alpha-numeric Alias.

6)	The console must support the ability to Display received Talkgroup and Unit ID in decimal format, and alpha-numeric Alias.

7)	The console must support the ability to place and receive unit-to-unit individual/private calls.

8)	The console must support the ability to do both Multicast and Unicast IP.

9)	The console must support the ability to perform text messaging.

10)	The console must support the ability to do Busy lockout parallel consoles, with indication.

11)	The console must support the ability to perform unit paging/call alert with acknowledgement.

12) The console must support the ability to receive and transmit analog and digital DTMF.
13) The console must support emergency call status display and alarm with display retention, showing unit ID/Alias of unit sending emergency signal.
14) The console must support a PSTN patch interface.
15) The console must support Channel patching without double Vocoding.
16) The console must support Unique Unit ID and IP address for each console.
17) The console must support Controllable receive audio level with muting.
18) The console must support the ability to select a specific transmitter on a voting system.
19) The console must support Selective squelch using NAC and Talkgroup.
20) The console shall have the capability to select receive and transmit talk groups. This provides the console operator the ability to monitor only the desired talk groups on a shared network. The console shall also have the capability to initiate and receive individual calls.

The GUI based dispatch console must support the following Motorola MOTOTRBO features:

1) The console must support the following MOTOTRBO features: Group and Private Calls, ANI, Channel change, Radio Disable / Enable, Status Messaging, Text Messaging – Precanned and Short, Remote Monitor, Emergency Receive and Acknowledgement.

The GUI based dispatch console must support Kenwood NexEdge Trunking features using a Direct IP interface:

1) The features should include: Narrow (12.5Khz) or Very Narrow (6.25Khz) Channel Spacing. Support up to 24 Talk Paths per Console. Selectable Talk Group, Broadcast, Group and Unit Calls. Emergency Call Decode with Acknowledgement Capabilities, Radio Remote Monitor with Supervisor Password, Over-The-Air-Aliasing, Radio Status Decode and Encode, Radio Status Request, Radio Remote TG Re-Grouping, Radio Stun and Revive, GPS Decode with IP Interface, Text Messaging and Alert Call.

<u>Workstation hardware requirements</u>

1) Operating System: Windows WIN7 or WIN8.1 (32 or 64) required.
2) Network Connection: 10 Mbps or 100Mbps TCP/IP connection. Static IP address preferred.
3) Processor Speed: Intel Core i3 CPU 2.8 GHz or greater especially if controlling P25 radios or large numbers of radios.
4) Memory: Minimum of 8Gbytes recommended
5) Integrated Serial ports (2), parallel port (1), up to 8 USB 2.0 ports.
6) 3 year parts and Labor Depot Warranty

VoIP Audio Gateway Adaptor Specifications

The Gateway adaptor must support the following basic features:

1) The gateway adaptor must provide a means to connect up to at least two independent audio sources for control over an Ethernet based network utilizing VoIP technology.
2) The gateway adaptor must support primary and secondary NIC ports for backup network connections. The feature shall support auto role-over if primary port loses connection.
3) The gateway adaptors Bandwidth requirement for one simplex audio stream via VoIP, must be configurable between 34kbit and 82kbit on a standard Ethernet network.
4) The gateway adaptor must be powered by +12 Vdc.
5) The gateway adaptor must support Quality of Service (QOS) functions.
6) The gateway adaptor must overcome network latency and packet loss; the use of jitter/packet buffers is an acceptable means to overcome this issue.
7) The gateway adaptor must support multiple audio compression Vocoders.
8) The gateway adaptor must have a menu driven front panel LCD display allowing programmability and adjustability of settings.
9) The gateway adaptor must support multicast based VoIP communications on the network and utilize at least IGMP v3.
10) All functions of the gateway adaptor must be programmable via a web browser or manufactures system management application from any location on the network.
11) The gateway adaptor must be able to clone its configuration to a computer on the network for archival purposes.
12) The radio adaptor must support Admin and User login; user will have limited access to configuration pages.
13) The gateway adaptor must support both COR and VOX based operation.
14) The gateway adaptor must support software based level controls for a wide range of audio In and Out of the unit.
15) The gateway adaptor must support a TX delay, RX delay, and Squelch tail delay for the purposes of delaying transmit audio, receive audio (to eliminate first syllable loss when using VOX), and for muting the squelch tail of some radios when they key down from transmission.
16) The gateway adaptor must provide for a locally controlled crosspatch between the two attached radios. This feature must support a selectable Function Tone enable and disable feature. This feature shall support bidirectional or selectable routing between ports 1 and 2.
17) The gateway adaptor must support the direct decode of MDC1200 or Kenwood FleetSync OTA signaling protocols for the purposes of supplying ANI and emergency status back to the console. Either or both must be enabled via software setup.
18) The gateway adaptor must support the direct encode of MDC1200 or Kenwood FleetSync OTA signaling protocols for the purposes of supplying FSK tones to any make/model radio. Either or both must be enabled via software setup.

The Gateway adaptor must support the following Modes of operation:

1) Local radio control - operation must support direct connection via balanced or unbalanced audio pairs. PTT and Monitor function must be supported via dry contact relay closure. Channel steering of at least 1000 channels must be supported via binary, BCD, or logic control. CTCSS tone generation must be supported; selectable tones and adjustable level are required. Must support the following radios via serial control: Kenwood FleetSync series TK-x80, -x90, -x150, -x180, -5x10 and NEXEDGE series, EF Johnson 5300, ES and VM series, ICOM IDAS and Tait TM-91/94xx series mobile radios.

2) Tone generation mode - operation must support standard 2-Wire and 4-Wire connectivity with TX monitor. In addition, levels up to +10dbm must be supported. Parallel connection to existing tone control lines must be supported with seamless integration of the VoIP based consoles in parallel with the tone control consoles. The tone frequencies must be programmable to multiple common PTT and function tone frequencies and support dual function tones.

3) Console Decode – operation must support decoding industry standard tones from existing legacy consoles, convert it to Ethernet traffic and send it to another gateway adaptor that regenerates the industry standard tones for control of existing tone remote adaptors. This mode must also support hardware based crossmute and supervisory features from legacy tone console system.

4) Local Control iDEN – operation allows connection to an iDEN Network, such as Southern LINC, Motorola Harmony, etc. Operating features supported are Direct Connect, Group Call, Emergency Group Call and Call Alert. Note: Additional equipment for connectivity to iDEN device will be allowed.

5) Local Control TETRA – operation supports an interface to a TETRA Digital Trunked system using the gateway and any of the following terminals, Sepura SRG Series, Hytera MT-680 or PowerTrunk MDT-400. The gateway interfaces the radio through the Peripheral Equipment Interface (PEI). This interface allows dispatch access to TETRA radio assets. Supported operating modes are Direct Mode Group Call (DMO), Trunked Group Call, Trunked Half Duplex Private Call, Trunked User Defined Scan List (UDSL) and Trunked Full Duplex Private Call.

6) Local Control MOTOTRBO – operation allows connection to an MOTOTRBO XPR series mobile. Operating Analog, Digital, Capacity Plus, Linked- Capacity Plus and Connect Plus. Note: Additional equipment for connectivity to XPR device will be allowed.

Network Relay and Logic Device Specification

The network relay and logic device must support the following basic functions:

1) The network relay and logic device must be a LAN/WAN connected unit that support ten (10) individual relay outputs and ten (10) individual logic inputs.
2) The network relay and logic device must support 10/100 Mbit per second Ethernet connections.
3) The network relay and logic device must support multicast based VoIP communications on the network and utilize at least IGMP v2.
4) The network relay and logic device must be powered by +12Vdc.
5) The network relay and logic device must be 19 inch rack mountable.
6) The network relay and logic device must have front panel indications for each input and output state.
7) The network relay and logic device connections to inputs and outputs must be via RJ45. 10 total RJ45's must be available for this purpose on the rear of the unit.
8) The network relay and logic device must support reliable TCP control of its output relays.
9) The network relay and logic device outputs will grant full wiring access to both sets of legs of a DPDT relay. This includes common, normally open, and normally closed, for a total of 6 pins.
10) The network relay and logic device relays must support rated at 125Vac at 1 Amp.
11) The network relay and logic device inputs must be diode blocked to support input voltages up to 18Vdc.
12) The network relay and logic device must support programmable de-bounce setting per input.
13) The network relay and logic device must support up to 10 channels of echo packet functionality.
14) The network relay and logic device must support initial configuration setup of the unit via a serial port.
15) All functions of the gateway adaptor must be programmable via a web browser or manufactures system management application from any location on the network.
16) The network relay and logic device must be able to clone its configuration from one device to another or to a computer on the network for archival purposes.

Control Station Radio Equipment

1) All control stations must be capable of software upgradability from basic analog operation to at least two additional digital modes listed below.
   A. NXDN Conventional
   B. NXDN Trunking C Type
   C. DMR Tier I & II
   D. P25 Conventional
   E. P25 Phase I Trunking
   F. P25 Phase II Trunking

2) All control stations must have full color display
3) All control stations must be capable of multi chassis operation (multi band)
4) All control stations must be capable of remoting the control head.
5) All control stations must be available in VHF (138-174 MHz), UHF (438-470 MHz) and 700/800 MHz.
6) All control stations must include encryption for analog and all digital formats.
7) All control stations must include DES encryption at no additional cost for P25 digital
8) All control stations must be upgradable to AES encryption for P25
9) If required by digital system operator, some control stations may vary from the above specifications as required by system programming keys   .

Antenna Infrastructure for Emergency Communications Center

As required, each control station will require some type of antenna. These will vary depending on channel (agency), frequency and area of coverage. For this reason, each will have to be engineered by the vendor to suit the needs of the specific channel. Some basic guidelines will need to be followed on all channels.

1) Each transmission line will be provided with "best practice", industry standard grounding methods at the antenna, where the transmission line leaves the tower or supporting structure, where the transmission line penetrates the wall of the building and at the point of termination in the radio room.
2) All transmission lines will be low loss, ½ inch or larger, 50 ohm cable as needed to be suitable for the proper operation of the particular station.
3) At the request of Sumner County, additional "spare" transmission lines may be required for temporary and or future channel capacity. These transmission lines shall meet the same requirements as those of the original channels.
4) Vendor will install a "Uni-strut" type support on the East side of the building to allow for installation of some control station antennas. The vendor will provide suitable space for all "low profile" antennas on this structure as well as some additional space for expansion and or temporary antennas.

5) Antennas for stations that require coverage that cannot be achieved by installation on the building will be installed on the tower structure. The height will be determined by the vendor to insure reliable coverage to the system that it is associated with. The transmission lines and antenna type and gain will be determined by the vendor and will be the responsibility of that vender for proper and reliable operation.

6) Amateur Radio Antennas will be installed on the East side of the building on the uni-strut support. The antennas will consist of four VHF/UHF dual band antennas and one 800 MHz antenna. A total of six feedlines will be installed from the east wall to the Amateur Radio Room with one feed line left unterminated for a wire dipole antenna to be installed later by the customer.

7) All transmission lines will be terminated, connected and waterproofed to industry standard.

8) Sumner County will provide the tower structure. It will be the vendor's responsibility to provide all mounting hardware suitable for each antenna. The mounting hardware will be stainless steel or galvanized to insure long-term stability.

9) All cables will be labeled at both ends and at each termination. A legend of all cables will be produced and copies of such displayed in radio equipment room as well as any connection point such as surge suppressor cabinets.

10) Sumner County will provide a suitable cable tray to support all transmission lines inside the building. Vendor will be responsible for properly securing all transmission lines to the tray in a fashion that will keep the lines in order for ease of tracing lines in the future.

11) Transition of transmission lines from primary entry cable to radios may be reduced to a suitable size to allow for a "clean" installation. The reduced cable size must still allow for proper operation of the station involved. It shall not induce additional loss so as to degrade the performance of that station. Each jumper cable will be labeled at both ends to aid cable recognition and accountability.

12) Vendor shall supply a NEMA-4 rated, watertight outdoor cabinet of steel or aluminum construction suitable for antenna feed line termination and lightning surge suppression to be installed at the base of the new tower that will be constructed at the Sumner County ECC. The minimum size of the cabinet shall be 36 inches high, 48 inches wide, and 18 inches deep. Adequate lightning surge suppressors for each antenna that will be located on the tower and ground buss bars shall be provided with the cabinet.

Cabinetry, Racks Enclosures

1) Vendor will provide suitable cabinetry, racks and / or enclosures for the control station radios, power supplies, console electronics, network switches and all other associated "back room" devices required for a fully functional dispatch console.

2) All racks will be grounded to building supplied ground line.

3) All items within the rack system shall be individually grounded to the rack itself.

4) Cabinetry, racks and or enclosures shall be secured to the floor for stability unless Sumner County chooses to use wheeled enclosures.

5) Sumner County will provide a dedicated electrical service for each rack in the form of a twist lock type connector. Each rack shall have its own surge protection power strip with matching twist lock connector.
6) Vendor shall provide UPS surge suppression units for each rack as specified by Sumner County.

Training

Vendor shall provide onsite dispatch console training for all supervisors and dispatch personnel based on a schedule provided by Sumner County that does not disrupt normal day to day operations.

SCADA Client for Tower Monitoring

Vendor shall integrate a SCADA client PC with a monitor / display to be located in the ECC Dispatch Center for viewing by dispatchers. The PC Client shall be integrated to the existing SCADA Server and will gather all of its information from the existing server.

OTHER OPTIONS

The successful vendor shall provide pricing for the following options to be chosen at the discretion of Sumner County:

Option #1: Microwave Backhaul

Vendor shall include options for a turn-key microwave backhaul for connectivity of the dispatch center and console to the existing Sumner County Radio System network. Vendor shall include all FCC licensing and frequency coordination. The microwave backhaul alarm outputs shall be interfaced to the existing Sumner County SCADA (Supervisory Control and Data Acquisition) system for monitoring the status of the microwave system. The addition of all the necessary software elements to the existing SCADA system's HMI interface must be included in the proposal.

<div align="center">

Microwave Backhaul Specification

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1) The proposed microwave must be FCC licensed and "carrier grade" for high reliability.
2) The proposed microwave must be capable of Ethernet speeds up to 350 Mbps
3) The proposed microwave must be capable of Ethernet Rapid Ring Redundancy.
4) The proposed microwave must be capable of bandwidth expansion without hardware replacement.
5) The proposed microwave must support Native Ethernet and Native TDM
6) The proposed microwave must support TDM SHARP self-healing ring protection
7) The proposed microwave must be capable of complete hot-standby operation

Option #2: Maintenance Agreement

Vendor shall provide an option for an annual maintenance agreement for the equipment and services specified in this RFP. The maintenance agreement shall include 24/7 emergency service with a response time of one hour. This maintenance agreement shall be made available as a renewable multi-year agreement. Vendor shall state the terms of the agreement as well as any discounts that are offered.

System Optimization and Acceptance

The system shall be optimized and fully tested prior to acceptance by Sumner County. Optimization shall be closely coordinated so as not to interfere with delivery of the departments day-to-day communications responsibilities.

Upon successful completion of the optimization and testing, the vendor shall certify in writing that the system has been optimized. Any remaining documentation showing settings and system parameters shall be promptly delivered to Sumner County. The system shall be considered accepted and the warranty clock shall begin. All equipment shall be designed, built, and tested to comply with recognized standards as appropriate, which are established by:

a) Electronic Industries Association (EIA)
b) Federal Communications Commission (FCC)
c) Underwriters Laboratories (UL) Approval

Where minimum standards of performance criteria are set forth, no compromise of these standards or performance criteria will be considered. Where specific standards are not mentioned, the vendor will be expected to incorporate equipment and methods consistent with reliability and performance elsewhere specified. FCC approval, where required, shall be in hand before submitting a proposal.

Evaluation Procedures And Criteria

Evaluation of the proposals will be based on the competitive selection process, in which the evaluation of proposals will not be limited to price alone.

The competitive selection evaluation criteria are as follows:

- Quality of response to the Scope of Services – 25 points
- The cost of the services/materials offered – 25 points
- The demonstrated experience of the proposer to perform services as requested In the RFP to the satisfaction of the Sumner County Emergency Communications Center – 20 points
- The ability of the vendor to provide the contracted services promptly and within

the time specified in his/her proposal, without delay or interference – 20 points
- The sufficiency of the vendor's financial resources and the effect thereof on his/her ability to perform or provide product – 5 points
- The ability of the vendor to provide future maintenance and services where such maintenance and service is essential – 5 points

Upon final vendor selection and contract development and before work can begin, a mutually agreed upon detailed work plan which will include cost, payment schedule and project timelines will be developed. Vendor shall not be reimbursed for the time spent during the development of the work plan. Although the RFP does not address the development of the work plan, interest in or knowledge of these components would be welcomed and may be considered in the evaluation process.

Warranty And Maintenance

As part of their proposal, the Vendor shall provide one-year warranty on all systems and components. This warranty shall include parts and labor. As part of their proposal, Vendor shall provide all maintenance services, including parts and labor for one year.

The warranty and maintenance period shall begin on the date of final system acceptance.

Contents Of Proposal

Proposals must include but need not be limited to the following information. As a part of their proposal preparation, vendors shall bear the burden of thoroughly and carefully explaining how their proposed equipment configuration best meets the requirements of Sumner County, Tennessee. This specification sets forth minimum capacity, performance, and requirements. Vendors may offer a proposal, which exceeds the minimums set forth in the documents. Vendors may suggest different business terms and conditions provided that their proposal references the difference as an "exception".

Minimum Vendor Requirements:

- The bidder shall hold a valid Tennessee General Contractor License with a minimum $1,000,000 limit.
- The bidder shall have been in business in Tennessee for a minimum of five (5) years.
- The bidder shall be factory trained by the manufacturer of the equipment bid within the last six months.
- The bidder shall have training in computer networking and computer control equipment.
- The bidder's location shall allow one (1) hour response time for requested emergency service.

- The bidder shall have deployed a minimum of two (2) similar systems in the area and provide references of such.

RFP Inquiries

Any and all questions regarding the specifics of this RFP should be directed to:

Vincent Riley
Sumner County EMS
Email: vriley@sumnerems.org
Phone: (615)-451-0429 ext 119

Or

Ken Weidner
Sumner County EMA
Email: kweidner@sumnerema.org
Phone: (615) 452-7584

All questions will be reviewed in a timely manner and will be responded to via email. Responses to all questions will be sent to <u>ALL REGISTERED VENDORS</u> via email. Vendors who receive this RFP are automatically registered. Other vendors will be registered upon acquiring this RFP from the Sumner County Finance Department.

Proposal Due Date

Proposals for all materials and work solicited under this specification are due not later than:

March 14, 2017
10:00 a.m. local time
1500 Airport Rd
Attn: Purchasing Supervisor
Gallatin TN 37066

SUMNER COUNTY BOARD OF EDUCATION
Purchasing Department
1500 Airport Road
Gallatin, TN 37066

COMPANY NAME　　　　　_____

ADDRESS　　　　　　　　_____

　　　　　　　　　　　　_____

TELEPHONE　　　　　　　_____

EMAIL　　　　　　　　　_____

AUTHORIZED COMPANY
REPRESENTATIVE　　　　　_____*SIGNATURE*

AUTHORIZED COMPANY
REPRESENTATIVE　　　　　_____*PRINTED*

DATE　　　　　　　　　　_____

Sumner County Emergency Management Services

BID TITLE　　　20170314-CO　　　Multi-Site IP based, consolidated Countywide Dispatch Console System Supervisory Control and Data Acquisition (SCADA) system Microwave Backhaul and Commissioning Services

DEADLINE　　　March 14, 2017 10:00 a.m. local time

BID TOTAL　　　　　　　$_____

BID GOOD THRU　　　　　_____

NOTES: _____

_____

_____

_____

_____

ATTACHMENT 1

STATEMENT OF NON-COLLUSION

The undersigned affirms that they are dully authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this proposal in collusion with any other respondent, and that the contents of this proposal as to prices, terms or conditions of said proposal have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this proposal.

Company   _____

Address   _____

               _____

               _____

Phone   _____

Fax   _____

Respondent (Signature) _____

Respondent (Print Name and Title) _____

Authorized Company Official (Print Name_____

DRUG-FREE WORKPLACE

The Sumner County Government is committed to maintaining a safe and productive work environment for its employees and to providing high quality service to its citizens. The goal of this policy is for Sumner County employees and contractors to remain, or become and remain, drug-free. Abuse and dependency on alcohol and/or drugs can seriously affect the health of employees, contractors and citizens, jeopardize personal safety, impact the safety of others and impair job performance.

Drug-Free Workplace Act of 1988 – Sumner County Government is governed by the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D).

Omnibus Transportation Employee Testing Act of 1991 – Sumner County Government is governed by the Omnibus Transportation Employee Testing Act of 1991 (Pub. L. 102-143, Title V).

Right to an Alcohol and Drug-Free Workplace - Employees have the right to work in an alcohol and drug-free environment and to work with persons free from the effects of alcohol and/or drugs.

Required Alcohol and Drug Tests - Alcohol and drug testing for safety sensitive employees shall be in accordance with the provisions contained in the Sumner County Alcohol and Drug Policy adopted by departments which have safety sensitive positions.

Contracts – Any contractors providing goods or services to Sumner County Government must comply with all State and Federal drug free workplace laws, rules and regulations and so certify this compliance by completion of the DRUG-FREE WORKPLACE AFFIDAVIT (attached page 2).

DRUG-FREE WORKPLACE AFFIDAVIT (page 2)

STATE OF   _____

COUNTY OF   _____

The undersigned, principal officer of _____, an employer of five (5) or more employees contracting with Sumner County Government to provide goods or services, hereby states under oath as follows:

1. The undersigned is a principal officer of _____ (hereinafter referred to as the "Company") and is duly authorized to execute this Affidavit on behalf of the Company.

2. The Company submits this Affidavit because it shall be receiving pay pursuant to a contract with the state or any local government to provide goods or services.

3. The Company is in compliance with all State and Federal Laws, Rules and Regulations requiring a drug-free workplace program.

Further affiant saith not.

Principal Officer:_____

STATE OF   _____

COUNTY OF   _____

Before me personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and seal at office this _____ day of _____, 20____.

_____
Notary Public

My commission expires: _____

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in transactions under federal non-procurement programs by any federal department or agency;

2. Have not, within the three year period preceding the proposal, had one or more public transactions (federal, state, or local) terminated for cause or default; and

3. Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three year period preceding the bid, been convicted or had a civil judgment rendered against it

    A. For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;

    B. For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or

    C. For the commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, under 18 U.S.C. § 1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to five years, or both.

_____

Name of Participant Agency

_____

Name and Title of Authorized Representative

_____

Signature of Authorized Representative   Date

_____   I am unable to certify to the above statement. Attached is my explanation.

CERTIFICATION BY CONTRACTOR

I, the undersigned, certify that on behalf of Contractor, I am authorized to attest and obligate the above certification and to legally bind Contractor to these terms, conditions and obligations.

_____ Title

_____Name

_____ Date

_____Witness