



DeKalb County
Board of Education

Wiring students to learn, achieve, and succeed

Patrick M. Cripps
Director of Schools

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September 23, 2022

To Whom It May Concern:

The DeKalb County Purchasing Committee will accept bids for the DeKalb County School System until **10:00 a.m., Thursday, October 13, 2022**, in the office of the County Mayor, at the DeKalb County Courthouse, Public Square, Smithville, Tennessee, 37166. Bids may be mailed or delivered in person and should be in a sealed envelope -- clearly marked as a "**Intercom Overlay Upgrade**".

The Purchasing Committee will accept bids as per specifications or approved equivalent.

The DeKalb County Purchasing Committee reserves the right to reject any and all bids.

Sincerely,



Patrick Cripps
Director of Schools

DeKalb Board of Education Scope of Work:

Rauland TCU Intercom or approved equivalent Overlay Option

Bidder will provide the following:

- Installation of Telecenter U overlay on top of the existing Telcor intercom system. The TCU overlay will take over all call functions, emergency functions, and the bell schedules. The existing intercom system will continue to function as normal for individual room call-ins.
- Install one admin console in the main office. The console will allow for all calls and emergency initiation.
- Connection to the existing telephone system.
- Category cable for the existing intercom rack and admin console location to the closest IDF. This will reuse all existing speakers, call buttons, and cabling.

Owner(DeKalb Board of Education) will be responsible for providing a district server and all necessary PoE network ports.

Prior to the system installation, the winning bidder will conduct a needs assessment that will provide all parties involved with the information needed to ensure that the TCU is set-up in the best way to fit your needs. Prior to go live of the system bidder will conduct full training of all applicable teachers, administrative staff, and EMA personnel in the use of the system

RAULAND TCU INTERCOM SYSTEM OR APPROVED EQUIVALENT SPECIFICATIONS

PART 1 – GENERAL

Rauland TCU Overlay or approved equivalent is to be integrated into the existing Telcor intercom system. We are reusing the current Telcor intercom system, speaker assemblies, and call stations.

1.1 RELATED DOCUMENTS & WORK SPECIFIED ELSEWHERE

- A. The conditions of the General Contract (General, Supplementary, and other Conditions) and the General Requirements are hereby made a part of this Section.
- B. The work in this section is related to the work specified in the following sections: Section XXXXX +Basic Materials and Methods
- C. The drawings and general provisions of the Contract Documents apply to this Section.
- D. **CABLE REQUIREMENTS:** The wiring systems specified in these guidelines are based upon requirements and recommendations of the IEEE, ANSI, EIA\TIA 568\569, and TSB 36 & 40, and BICSI for horizontal premise wiring. All products used shall be UL listed and meet applicable local and state codes.
- E. **Copper Cable:** Unshielded Twisted Pair (UTP) with a 24 AWG cabling must be used for the horizontal wiring from the MDF, IDF, or CP to the individual communications outlets.
- F. **Not included in this Section** –The owner shall provide: Racks, Cable Management, PoE Switches, UPS, and Emergency Power as needed.
- G. Upgrade the existing Telcor intercom to provide Rauland TCU Overlay; no exceptions and reuse the existing rack to house the new TCU Overlay intercom system equipment and reconnect the existing speaker assemblies and cabling. Repair any existing conditions and make a fully operational system.

- H. Pretest of the existing cabling and speakers shall be completed prior to bid date and any repairs are to be included in the quotation so that you have a fully operational system.

1.2 SUMMARY

- I. This section includes a fully operational IP platform for a district-wide and internal school communications system incorporating school safety notifications and general communications including but not limited to, the following:
 - J. The platform shall provide complete internal communications employing state of the art IP Technology, including the minimum functions listed.
 - a. Two-way internal intercommunications between staff locations and classrooms.
 - b. Scheduled bell events.
 - c. An emergency announcement that will override any pre-programmed zones assuring that all Emergency/Lockdown/Etc. are heard at each speaker location.
 - d. The capability of pre recorded emergency announcements that can be activated by a simple Soft Key or via a dedicated push button.
 - e. Atomic Time Synchronization with Class Change Tones utilizing multiple, programmable schedules for each zone.
 - f. District wide emergency, group, all school, and zone live voice paging.
 - g. District-wide, Emergency, Group, All School and Zone live voice paging.
 - h. District-wide, Emergency, group, All School and Zone visual messaging.
 - i. District-wide, Emergency, Group, All School and Zone paging for pre-recorded audio – tones, music, and voice.
 - j. Single sign on web-based user interface for multi-school functionality.
- K. The system shall support a minimum of 1000 level priorities, which shall be user-definable, allowing each end point to place a minimum of 5 different priority calls at the same time.
- L. Any authorized administrator shall be able to call from outside the school into any classroom, zone, or the entire school directly via the School District supplied SIP (Session Initiation Protocol) enabled Telephone Network. This shall allow remote monitoring, call-in annunciation, and two-way conversation from outside the facility as well as paging into the system. Compliance with NEMA Standard SB-40 for emergency communications in K-12 Schools.
- M. Authorized system users shall be able to create a minimum of twenty (20) automated sequences with emergency instructions, tones, e-mails, and relay activations and replay them.
- N. Automated message strings shall be manually initiated from single-button access on the console, on a SIP connected telephone, a panic button, from the web interface or via an interface with third-party systems.
- O. Paging and two-way intercom features shall be accessible from any system console or SIP connected telephone for each campus.
- P. Each single campus installation shall be locally survivable for intercom, paging, bells, and emergencies such as lockdown, even when the district connection is unavailable.
- Q. The system shall support displaying all schools' locations on a single map, showing school status including active emergencies.

- R. Included in the emergency procedures is the ability to send specific messages and or instructions. These features can be added to the emergency sequences.
- S. The ability to require an access code to initiate or clear an emergency from the administrative console.
- T. An app that can run on either Android or Apple phones. This app will give the user the ability to initiate one of 18 emergency procedures programmed into the app. This app will also allow you to view all classrooms' check in status. This process will update during the emergency to make sure all information is current.
- U. The ability to allow the fire alarm system to signal an active fire alarm to TCU. This will allow supplemental visual and audio messaging from Telecenter U. Telecenter U can be programmed to change system state, depending on the active emergency. Both fire and emergency will be displayed on the administrative console and mobile application.
- V. Any system that requires more than one Cat drop to a classroom to control an IP speaker, up to 5 call-in switches, status lights (up to 2) and message board/digital clock will not be considered equal to the specified system.
- W. Future integration shall provide the ability for a map that shows a layout of school and the system of activity of each classroom, hallway, and device status.
- X. This specification establishes a minimum level of quality, features, and performance for individual components as well as the integrated system.
- Y. Systems that do not comply with the feature-sets highlighted in this Specification will not be considered.

PART 2 - 1.3 DEFINITION OF TERMS

- A. Installer(s): Shall refer to the person, persons, or company who or which contracts to perform the work specified herein.

PART 3 - 1.4 SUBMITTALS

- A. Product data for each component.
- B. Shop Drawings: Prior to proceeding with the work, provide detailed equipment assemblies and indicate dimensions, weights, required clearances, method of field assembly, components and location of each field connection and a complete schedule of all equipment and materials with associated manufacturers cut sheets which are to be used.
Wiring Diagrams: Detail wiring for power, signal, and control systems and differentiate between manufacturer-installed and field-installed wiring. Identify terminals to facilitate installation, operation and maintenance. Artwork drawings and lists are indicating proposed nameplate nomenclature and arrangements for control panels and plug panels prior to fabrication reflecting equipment used. Each drawing shall have a descriptive title and all sub-parts of each drawing shall be labeled. All drawings shall have the name and locations of the project, Systems Contractor's name in the title block. Details and descriptions of any other aspect of the system, which must differ from the contract documents due to field conditions or equipment furnished.

- C. FCC Approval: The system shall be approved for direct interconnection to the telephone utility under Part 68 of FCC rules and regulations. Systems that are not FCC approved or utilized as an intermediary device for connection will not be considered. Provide the FCC registration number of the system being proposed as part of the submittal process.
- D. Product Certificates: Signed by manufacturers of equipment certifying that products furnished comply with specified requirements.
- E. Installer Certificates: Signed by manufacturer certifying that installers comply with requirements.
- F. Manufacturer Certificates: Signed by manufacturers certifying that they comply with requirements.
- G. Maintenance Data: For equipment to be included in maintenance manuals specified in Division 1.
 - a. Record of Owners' equipment-programming option decisions.
 - b. All instructions necessary for proper operation and manufacturer's instructions.
 - c. "Proof of Performance" information.
 - d. Manufacturer's maintenance information.
 - e. Copies of non-proprietary computer programs and system set up disks documenting all programmable features of the installed system.
- H. Record Drawings: Prior to final acceptance, provide three (3) complete sets of drawings indicating all cable numbers and construction details in accordance with the actual system installation. Revise all shop drawings to represent actual installation conditions. These Record Drawings will be used during "Final Acceptance Testing."
- I. System Training: Submit the following information describing the training programs and system trainers as outlined in paragraph 1.6 of this specification and under Division 1 specifications. (3 hours of training 1 site visits within the first year of operation)
 - a. Include a preliminary staff development training program in the outline form for review and approval by the owner's representative.
 - b. Include a current copy of the trainer's certification from the manufacturer that certifies and identifies the trainer(s) who are eligible to provide training and support for the project.
 - c. Include a current copy of the trainer's need's assessment form which will be reviewed with the owner's designated representative for the system's preliminary system programming and configuration.
 - d. Include copies of all documentation used to identify for the owner those participants attending and completing the training programs.

PART 4 - 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is an authorized representative of equipment manufacturer for both installation and maintenance of equipment required for this Section. Provide the following within thirty (30) days after notification to proceed:
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
- C. Comply with NFPA 70

- D. Comply with NEMA Standard SB-40 for Emergency Communications in K-12 schools.
- E. Comply with UL 60950.

PART 5 - 1.6 IN-SERVICE TRAINING

- A. The contractor shall provide and implement a complete and comprehensive staff training program for all administrators, facility staff members and teachers. This mandatory training program will provide school staff with a full understanding of how to utilize and adequately operate all functions.
- B. The training program shall be implemented by a staff member/trainer employed by the contractor. The trainer must be factory certified to provide training on their product.
- C. All staff development training is to be coordinated through the owner's designated representative. As training sessions are completed, the trainer will provide the school's administrative staff and school district's staff a document listing all the team and faculty members who attended, received, and completed the training program.

PART 6 - 1.7 WARRANTY

- A. Provide a manufacturer's five-year warranty of the school communications network equipment against defects in material and workmanship. This warranty will cover all electronic equipment, as well as existing speakers, cabling and any field devices and call-in switches. If any defects are found within the warranty period, the defective equipment shall be replaced at no cost. Five years warranty shall be provided for labor. The existing Rauland TCU Overlay system shall have the same warranty period and run concurrently with all the new equipment installed in this project.
- B. The statement of the warranty shall be provided on the manufacturer's stationery. The standard five-year warranty is an essential element in establishing a standard in quality. Manufacturers who circumvent the five-year warranty by offering special "extended warranties" that are not part of their standard published warranty will not be accepted.
- C. The contractor shall respond, excluding weekends and holidays, within 24 hours to any warranty service calls. If equipment cannot be repaired within 24 hours of the service visit, the contractor shall provide "loaner" equipment to the facility at no charge.
- D. Make available a service contract offering continuing factory authorized service of the system after the initial warranty period.

PART 7 - 1.8 ACCEPTABLE MANUFACTURERS

- A. The equipment model numbers specified herein are that of the Rauland. The intent is to establish a standard of quality, the standard of equipment function, and features. It is the responsibility of the bidder to ensure that the proposed product meets or exceeds every standard set forth in these specifications. Failure to provide the identical functions of the existing district wide integrated communication system will result in the removal of the system at the end of the project and replacement at the contractor expense.

The functions and features specified are vital to the operation of this facility; therefore, inclusion in the list of acceptable manufacturers does not release the contractor from strict compliance with the requirements of this specification.

Rauland TCU Overlay or approved equivalent to be integrated into the existing Telcor intercom system. We are reusing the current Telcor intercom system, speaker assemblies, and call stations.

PART 2 - PRODUCTS

2.1 SYSTEM REQUIREMENTS

- A. The platform shall utilize state of the art IP Technology for Call-in Notification, School Safety Paging, and Evacuation Tones, Atomic Time Synchronization, Class Change Tones utilizing multiple, programmable schedules for each zone. Two-way hands-free Internal Intercommunications, Paging and Program Distribution. The system shall be easy to learn and operate. All standard programming shall be web-based and user-friendly to allow the system administrator the ability to program system features easily.
- B. Future migration must include the following technology and be readily available for implementation upon school district request, and at the owner's request, provide a demonstration of the system and functionality.
 - 1. The solution utilizes a controller within each school and a district or cloud-hosted server instance for district-wide visibility. Built on an open API architecture, the platform is designed to integrate your safety and security technologies through one platform, creating a new level of solution capabilities.
 - 2. Failure to provide this function at the date of proposal will result in the removal of the system at the contractor's expense to be replaced with the exact functions.
- C. Provide a complete and satisfactorily operating district/school communications and district/school safety system as described herein, using materials and equipment of types, sizes, ratings, and performances as indicated. Use materials and equipment that comply with referenced standards and manufacturers' standard design and construction, in accordance with published product information. Coordinate the features of all materials and equipment so they form an integrated system, with components and interconnections matched for optimum performance of specified functions.
- D. The platform shall be a single electronic system consisting of a minimum of 10 intercom channels for each campus, (classroom) IP speaker modules and call-in switches, IP Zone Modules connecting corridor speakers, inside and outside horns, IP Administrative Consoles, SIP-enabled PBX integration and district-wide integration for paging, emergency notifications, calendar scheduling and configuration.
- E. Each Classroom shall be provided with an IP Speaker module interface and up to 5 different call-in switches, each with their annunciation path and priority. The ability to monitor the device operation and report via email or text any failures.

- F. Call-ins may automatically annunciate (display of priority and location) to administrative consoles, and SIP enabled phones and outside phones.
- G. Call-ins shall be programmed to automatically change priority and annunciation route based on the age of call-in and priority.
- H. Call-ins may have priority and annunciation routing changed by user action from a console or SIP-enabled phone.
- I. Call-in annunciation routing shall include playing pre-recorded audio over speakers, sending a pre-configured e-mail, and activating relays.
- J. The platform shall lend itself to expansion by the simple addition of hardware modules.
- K. The platform shall directly connect to the WAN/LAN without the need for a separate server at each school location. Configuration, including bell schedules, calendars, and emergency sequences, can remotely be created, changed, stored, and downloaded to the system by an authorized user from a browser-based interface.
- L. The platform shall provide the ability to initiate school safety paging announcements, evacuation tones and take cover tones from any telephone or connected web-browser within the facility or outside the facility to any other location within the facility or district.
- M. The platform shall provide the ability to selectively communicate or monitor individual classrooms in emergency situations from any telephone within the facility or outside the facility to any other location within the facility. All communication within the classroom shall be hands free and will not require any interaction by the classroom user.
- N. The platform shall provide classroom users the ability to confirm that they have safely secured their classrooms during lockdown with a single button press.
- O. IP-addressable and POE powered speaker modules for individual rooms shall be system programmable and may be assigned any two, three, four, five or six-digit number as well as name and description. Any extension may be reassigned at any time.
- P. IP-enabled two-way voice communication shall be available from any provided telephone or administrative console through any IP Speaker on a campus. This shall allow hands-free communication to any classroom or any individual IP loudspeaker unit. A programmable pre-announce tone shall sound immediately before the intercom path is opened and a supervisory tone shall continue to sound at regular intervals when speaker monitoring is active, complying fully with all privacy legislation. Pre-announce tone and supervisory tones shall be disabled during designated emergencies, such as lockdowns, automatically.
- Q. The platform shall allow users to configure multiple schedules per school, with a minimum of 500 unique events per the schedule and automatic Daylight Savings Time correction. A minimum of 5 schedules may be active on any given day for each campus. Users shall be able to select from 25 standard included tones as well as unlimited user created and uploaded audio files for class change signaling and messaging. In addition, scheduled events shall consist of relay actions, e-mail notifications and paging exclusions as system configuration changes. The platform shall allow control of the bell schedules via the district WAN/LAN without the need for a separate server at each school location. Bell schedules can be remotely created, changed, stored and assigned to calendar days for the local school by an authorized user from a browser-based interface.

- R. The platform shall allow users to configure multiple schedules per school, with a minimum of 500 unique events per the schedule and automatic Daylight Savings Time correction. A minimum of 5 schedules may be active on any given day for each campus. Users shall be able to select from 25 standard included tones as well as unlimited user created and uploaded audio files for class change signaling and messaging also, as system configuration changed. The platform shall allow control of the bell schedules via the district WAN/LAN without the need for a separate server at each school location. Bell schedules can be remotely created, changed, stored and assigned to calendar days for the local school by an authorized user from a browser-based interface.
- S. The platform shall be able to integrate with an existing PA system or operate as a fully independent IP solution. The platform shall be able to function in the combination of said configurations and allow for seamless communication within a school or district-wide, regardless of the type of setup used. The platform shall be scalable, with the ability to easily add, install, and configure additional equipment to a system.
- T. The platform allows for customization of preprogrammed sequences, used for emergencies, events, and everyday communications. Preprogrammed sequences can be activated from the push of a relay button, soft key of an administrative console, a dial string of a SIP phone, or a web browser configured to the district network. Sequences can be initiated automatically as part of a schedule or on the fly. Preprogrammed sequences can be customized to utilize any combination of audio tones, emails, relays, tone exclusions, swings, delays, duplex, SIP phone notifications, and program distribution. Audio tones can include customized audio files and voice messages recorded in any language. Uploaded audio tones and messages can be preprogrammed to announce repeatedly or individually, as part of a scheduled sequence or on the fly. Each school in a district can have its customized sequences and can be activated separately, in groups, or district wide.
- U. The platform allows for emergencies to be initiated in a drill environment, separate from real emergencies. Drill emergencies can be initiated from panic buttons, consoles, SIP phones, or a web browser.

2.2 EQUIPMENT AND MATERIAL

- A. Server Software – Rauland Model TCC2000SW (Existing at District Data Center) 6.0
 1. Provides district-wide paging, bell event scheduling, emergency notification, and configuration for the entire district.
 2. It provides the ability to configure the system and initiate system features per school and district-wide from a web-based interface.
 3. The software can sync system time to the Atomic Clock Signal or to the school's or district's network time server.
 4. The software will provide a web-browser to deliver district-wide emergency paging, pre-recorded messages, and tones from any authorized computer in the facility or the district. The software must be capable of automatically notifying district personnel via the WAN of an alarm condition.
 5. The software can automatically broadcast emergency instructions via associated system hardware throughout an entire district when an alarm (e.g., lockdown, lockout, security, fire) is initiated via the web-based interface. The emergency instructions are preprogrammed and require no user intervention. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
 6. The software can be installed in cloud, virtual, or physical server environments.

7. The web-based user interface supports secure HTTP browsing.
8. The server software supports encryption to ensure secure access.
9. The software shall support any combination of VoIP Telecenter U Campus Controllers for a minimum of 1000 facilities.
10. The software shall support a minimum of 50,000 IP Speaker Modules district wide.

B. VoIP Single Campus Controller – Rauland Model TCC2000

1. Provides call routing for paging and intercom for a single facility.
2. Connects to the district provided Telephone Network via a SIP connection.
3. Supports a flexible numbering plan allowing two, three, four, five- or six-digit extensions.
4. SIP interface to a district provided Telephone Network shall enable connected phones to display classroom call-ins, answer internal intercom call-ins, make pages, and change priorities of call-ins in progress...
5. Direct Dialing, two-way amplified voice intercom between any provided telephone or administrative console and IP speaker without the use of a press to talk or talk listen switch.
6. Ability to place two levels of call-in from any call-in switch.
7. The ability to answer intercom call-ins registered at administrative consoles and pre-selected telephones.
8. The ability to automatically escalate incoming call-ins to an alternate telephone or group of telephones if they remain unanswered for a predetermined amount of time.
9. The ability to manually upgrade an intercom call-in to an alternate telephone or group of telephones.
10. The ability for classrooms to “check-in” via push-button when they have successfully secured their location during an emergency.
11. Administrative consoles shall display locations that have not “checked-in” to confirm their secured location and provide hands-free audio monitoring and communication to unsecured locations.
12. The controller shall not need a direct connection to any classroom via home run or distributed wiring. It shall communicate solely through the IP Network.
13. Single-button access from any telephone on the system to distribute emergency announcements within the facility to all or select locations equipped with speakers. Emergency announcements originating from any assigned administrative phone shall have priority over all regular system functions.
14. Ability for administrative consoles and connected phones to selectively monitor audio at any two-way speaker during an emergency.
15. Stores a minimum 48 hours of Bell Event Schedules, all emergency notification sequences as well as facility wide configuration.
16. The system can sync system time to the Atomic Clock Signal or the school’s or district’s network time server.
17. System’s SIP Interface shall provide:
 - a. Audio paging access from any telephone to any single intercom speaker, zone (group) of intercom/paging speakers or all speakers/paging horns throughout the entire facility.
 - b. Ability to answer a call-in directed to that SIP extension.
 - c. Ability to upgrade a call-in directed to that SIP extension.
 - d. Single-button access from any telephone on the system to initiate alarm signals within the facility to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating

- from any assigned administrative telephone shall have priority over all regular system functions.
- e. Ability to initiate school-wide emergencies, including lockdown and evacuation sequences.
 18. The system will have the ability to utilize a web-browser and a USB microphone connected to the PC to deliver district-wide live emergency paging, pre-recorded messages and tones from any authorized computer in the facility or district. The system must be capable of automatically notifying district personnel via the WAN of an alarm condition.
 19. The system can automatically broadcast emergency instructions throughout an entire campus when an alarm (e.g., lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
 20. IP Addressable Modules: - 1. The system shall provide multiple IP addressable modules for intercom, paging, and relay activation.
 - a. All modules are POE 802.3af compliant.
 - b. All Modules support DHCP.
 - c. All Modules connect to the network with a single RJ-45 connector.
- C. IP Addressable Zone Paging Module – Rauland Model TCC2022
1. Zone paging modules convert the IP-based audio to an analog line-level audio signal to drive the Audio/Program Amplifiers specified herein.
 2. Zone paging modules shall connect multiple speakers for district all page, all page, zone paging, bells, audio events, and emergency notifications.
 3. Zone paging modules shall be rack mounted in the MDF/IDF's using the Rauland Model TCC2099 Universal Rack Mounting Kit.
 4. Zone paging modules shall be able to belong to one or more of 100 independent zones for live paging, bells, pre-recorded audio and emergency notifications.
- D. IP Addressable Auxiliary Input/output Module – Rauland Model TCC2033
1. Auxiliary I/O Modules provide two (2) networks enabled, individually addressable contact closures providing an interface to external systems such as fire alarm panels, security panels, strobes, and door latches.
 2. Auxiliary, I/O modules provide the ability to connect a "Panic Button" to the system.
 3. Auxiliary I/O Modules shall be rack-mounted using the Rauland Model TCC2099 Universal Rack Mounting Kit.
 4. User can program relays to be activated manually, through an event/bell schedule and during emergency notification.
- E. IP Addressable Program Line Input Module – Rauland Model TCC2055
1. Line Input Module converts stereo or mono line-level analog audio to IP-Based Data for use in the Telecenter U system.
 2. It is equipped with a 3.5mm (headphone style) input socket.
 3. Desktop or rack is mountable with Rauland Model TCC2099 Universal Rack Mounting Kit.
- Includes a male 3.5mm to dual male RCA connector cable.
- F. IP Addressable Administrative Console – Rauland Model TCC2045
1. A full-color screen with 64 soft keys, 3 lines select, volume control, push to talk, speakerphone mode, left/right and up/down scrolling.

2. Audio paging access from any Console to any single intercom speaker, zone (group) of intercom/paging speakers or all speakers/paging horns throughout the entire school.
 3. Programmable soft key access from any console on the system to initiate alarm signals within the school to all or select locations equipped with speakers. A minimum of 25 separate distinct alarm signals shall be provided. Alarm signals originating from any assigned administrative telephone shall have priority over all regular system functions.
 4. Programmable soft key access from any console to automatically broadcast page emergency instructions throughout an entire school when an alarm (e.g., lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions are preprogrammed and require no user intervention. The system provides redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
 5. Ability to perform intercom communication with any single IP Addressable Speaker Module.
 6. Ability to display 3 call-ins at a time on the screen, with an unlimited number of call-ins annunciating and the ability to scroll to view all call-ins.
 7. Ability to upgrade a call-in via a soft key.
 8. Programmable soft key access from any console for activating relays, campus wide.
 9. Ability to maintain, along with controller and other IP Modules system functions, including intercom, bells, and paging for the local campus in the event of district-wide connection loss.
 10. Quantiles: Elementary School 1 Console – Middle School 2 Consoles – High School 3 console – location coordinated with owner representative.
- G. Kiosk Poe to be located in the front office area coordinated with the owner representative. Qty 1
1. The POE, interactive, multi-touch, Kiosk provides a self-contained, full system control interface with two-way IP audio and contains features to enhance classroom workflow. The Kiosk shall be permanently mounted. See plans for locations. The Kiosk can be installed and associated with an IP classroom speaker module for control of classroom devices, classrooms controlled by the Overlay gateway interface or as a stand-alone control and communication device when a classroom endpoint is not needed. The Kiosk shall provide a minimum of 8 separate user-definable screens, protected by a 3-level hierarchy of protection; Public, Standard and Override. The control fields support up to 168 control options as defined by individual widgets or a combination of widgets.
- H. Remote Audio Input Jack Plate - ProCo Model Type A
1. Provide a single gang plate in the office area to facilitate the connection of a headphone level audio source for a broadcast of program material through the system (ProCo Model Type A). The jack plate shall have a single 3.5mm female stereo input. The jack plate shall be engraved "INTERCOM PROG. INPUT".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with the Installer present, for compliance with requirements and other conditions affecting the performance of the School Communications and School Safety Network.

- B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install the system following NFPA 70 and other applicable codes. Install equipment following the manufacturer's written instructions.
- B. Furnish and install all material, devices, components, and equipment for a complete and operational system.
- C. Impedance and Level Matching: Carefully match input and output impedances and signal levels at signal interfaces. Provide matching networks where required.
- D. Control Circuit Wiring: Install control circuits following NFPA 70 and as indicated. Provide number of conductors as recommended by the system manufacturer to provide control functions indicated or specified.
- E. All housings are to be located as indicated.
- F. The contractor shall provide necessary transient protection on the AC power feed, all copper station lines leaving or entering the building, and all central office trunks. All protection shall be as recommended by the equipment supplier and referenced to earth ground.
- G. Wiring within Enclosures: Provide adequate length of conductors. Bundle, lace, and train the conductors to terminal points with no excess. Provide and use lacing bars.
- H. Provide physical isolation from speaker microphone, telephone, line-level wiring and power wiring. Run in separate raceways, or were exposed or in the same enclosure, provide 12-inch minimum separation between conductors to speaker microphones, telephone wiring and adjacent parallel power. Provide physical separation as recommended by the equipment manufacturer for other system conductors.
- I. Identification of Conductors and Cables: Use color coding of conductors and apply wire and cable marking tape to designate wires and cables, so all media are identified in coordination with system wiring diagrams.
- J. Weatherproofing: Provide weatherproof enclosures for items to be mounted outdoors or exposed to the weather.

3.3 GROUNDING

- A. Provide equipment grounding connections for Integrated Electronic Communications Network systems as indicated. Tighten connections to comply with tightening torques specified in UL Standard 486A to assure permanent and effective grounds.
- B. Ground equipment, conductor, and cable shields to eliminate shock hazards and to minimize to the greatest extent possible, ground loops, standard mode returns, noise pickup, cross talk, and other impairments. Provide a 5-ohm ground at the central equipment location. Measure, record and report ground resistance.

- C. Provide all necessary transient protection on the AC power feed and all copper station lines leaving or entering the building. Note on system drawings the type and location of these protection devices as well as all wiring information.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Provide services of a duly factory-authorized service representative for this project location to supervise the field assembly and connection of components and the pre-testing, testing and adjustment of the system.
- B. Inspection: Make observations to verify that units and controls are properly labeled, and interconnecting wires and terminals are identified.
- C. Testing: Rectify deficiencies indicated by tests and completely re-test work affected by such deficiencies at Contractor's expense. Verify by the system test that the total system meets the Specifications and complies with applicable standards.

3.5 FINAL ACCEPTANCE TESTING

- A. The Final Acceptance Testing shall be provided to the Owner, or the Owners designated representative only. Final acceptance testing to any other trade or service provider for the project will not comply with the requirements of this section.
- B. The contractor will provide a Final Acceptance Test record document signed by both the contractor and the Owner or designated Owner's Representative establishing the "In Warranty" date. The warranty period will not commence until the Final Acceptance Test is completed.
- C. Be prepared to verify the performance of any portion of the installation by demonstration, listening and viewing test, and instrumented measurements. Make additional adjustments within the scope of work and which are deemed necessary by the Owner because of the acceptance test.

3.6 COMMISSIONING

- A. The contractor shall train the Owner's maintenance personnel in the procedures and schedules involved in operating, troubleshooting, servicing, and preventative maintenance of the system. This training will be following the training as outlined in the In-Service Training Section of these specifications. In addition to the Training Materials provided, the contractor will also furnish Operators Manuals and Users Guides at the time of this training.
- B. Schedule training with Owner through the owner's representative with at least seven days advance notice.

3.7 OCCUPANCY ADJUSTMENTS

- A. The contractor shall provide Occupancy Adjustments following these specifications. A response scenario amenable to both the owner and the contractor will be established and followed for the first year of service.

3.8 CLEANING AND PROTECTION

- A. Prior to final acceptance, the contractor shall vacuum and clean all system components and protect them from damage and deterioration. All general areas within and around all equipment rack/cabinets in the facility will be swept, vacuumed, and cleaned up.

Tennessee Cooperative Purchasing Option:

TN Cooperative Purchasing: also known as piggybacking, the DeKalb Board of Education reserves the right to extend the terms, conditions and prices of this contract to other institutions (such as State, Local and/or Public Agencies) who express an interest in participating in any contract that results from bids and/or bids. Each of the piggyback institutions will issue their own purchasing documents for purchasing of the goods. Bidder agrees that the DeKalb Board of Education shall bear no responsibility or liability for any agreements between Bidder and the other Institution(s) who desire to exercise this option.

BID FORM

SUBMIT BID FORM TO: Matt Adcock, County Mayor
DeKalb County Purchasing Committee
DeKalb County Courthouse
1 Public Square
Smithville, TN 37166

ITEMS: Items as contained in the DeKalb County Schools Specifications Intercom Overlay Upgrade

The bidder acknowledges by his signature that:

1. He has received, read, and understands the specifications and his bid is made in accordance therewith.
2. He has received the following addenda:
Addendum No. _____ Dated _____, 2022
3. He is in agreement to:
 - A. If awarded the bid, comply with all requirements of the specifications.

A) Show amount in both words and figures for the total cost of a Intercom Overlay Upgrade at DCHS, as per specifications: _____ dollars

\$ _____

B) Show amount in both words and figures for the total cost of a Intercom Overlay Upgrade at DMS, as per specifications: _____ dollars

\$ _____

C) Show amount in both words and figures for the total cost of a Intercom Overlay Upgrade at NES, as per specifications: _____ dollars

\$ _____

D) Show amount in both words and figures for the total cost of a Intercom Overlay Upgrade at SES, as per specifications: _____ dollars

\$ _____

E) Show amount in both words and figures for the total cost of a Intercom Overlay Upgrade at DWS, as per specifications:

_____ dollars

\$ _____

Name of Company _____

Address _____

Signature and Title _____

Date _____ Phone Number _____

Federal ID Number _____

Bid must be signed by a person or persons authorized to bind the bidder. Failure to complete the Bid Form may be cause for rejection of bid. Bid opening will be 10:00 a.m. on Thursday, October 13, 2022.

If you have any questions about this invitation to bid, please contact the DeKalb County Board of Education, at (615)597-4084. Should any terms or conditions on the attached specifications differ from the Invitation to Bid, the terms and conditions of the Invitation to Bid shall govern the process.

- Items may be awarded to the lowest bid(s) or best overall bid, and DeKalb County School System reserves the right to award this bid on quality, price and availability of product specified, whichever is in the best interest of DeKalb County Schools.
- The use of the name of a manufacturer or any special brand, model or make in describing an item or the use of detailed descriptive specifications pertinent thereto, does not restrict bidders to that manufacturer or specific article or such detailed descriptive specifications; this means or method being used simply to indicate the character, or quality of the article desired; but the article on which bids are submitted must be of such character, quality and design as will serve the purpose for which it is to be used equally as well as that specified; must be the equal of the article described and equally suitable to the needs of the DeKalb County School System. If bidding on other than the make, model, or brand specified or such detailed descriptive specifications, the manufacturer's name and catalogue reference, together with specifications therefore must be given or other information given (CLEARLY STATED ON THE BID SHEET IN EVERY INSTANCE) to enable the Purchasing Agent to determine its suitability, or otherwise. DeKalb County Schools reserves the right, through the Purchasing Agent, to be the sole judge in such determinations. WHEN NO REFERENCE IS MADE BY THE BIDDER TO THE MAKE OR GRADE PROPOSED TO BE FURNISHED IT IS UNDERSTOOD THAT THE SPECIFIC ARTICLE NAMED IN THE BID SHEET WILL BE FURNISHED.
- **All bids are ultimately subject to funding.**
- **Bids are to be valid for a minimum of 120 days.**
- The language of this Invitation to Bid shall be binding unless mutually amended by DeKalb County School System and bidder. Issuance of the purchase order will be the award notice. The terms and conditions of this Invitation to Bid and detailed purchase order shall constitute entire agreement.
- All invoices must have an approved DeKalb County School System purchase order number. We require one itemized invoice per purchase order, which shall be presented after we receive 100% of the items on the original purchase order.
- Invoice must be reflective of original bid; DeKalb County Schools will not be responsible for added expenses. By submission of bid, vendor certified that all items are equal to or better than the referenced items and agrees to all terms and conditions stated herein.

- The bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission, but shall fully address the full intent and meaning of each aspect of the specifications.
- DeKalb County School System is a tax-exempt organization.
- It is the bidder's responsibility to comply with all local, state and federal laws, regulations, codes, licensing, and other requirements. The bidder must be prepared to substantiate compliance upon request by the Board's representative.
- The desired equipment should reasonably meet or exceed the specifications of the models included in the detailed specifications, which have been provided as a reference. **Any item substituted must be an approved equivalent.**
- The successful bidder must provide full arrangements for delivery, installation, clean up and removal of all debris from the project site. All shipping and delivery cost shall be paid by the vendor and included in the bid price. All items shall be delivered, uncrated, assembled and installed by the vendor, unless otherwise noted.
- Bids will be awarded and purchase orders issued.
- "Contractor shall comply with Public Chapter 587 of 2007, as codified in Tennessee Code Annotated Section 49-5-413, which requires all contractors to facilitate a criminal history records check conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee prior to permitting the employee to have contact with students or enter school grounds when students are present."
- The successful bidder shall expressly bind itself to defend and hold harmless the school district from all suits or actions of every name and description. The Contractor shall provide Certificate(s) of Insurance (Worker's Compensation and Comprehensive General Liability) with the bid documents.
- All material and supplies used will be asbestos free. The person/company awarded this bid will furnish a written statement and product information to verify/certify that no asbestos was used.
- **This institution is an equal opportunity provider and employer**
Nondiscrimination. DeKalb County School District complies with Titles VI and VII of the Civil Rights Act of 1964, the Equal Pay Act of 1973, Title IX (1972 Educational Amendments), Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act, related regulations and all other state and federal anti-discrimination laws. DeKalb County Schools also requires all contractors to comply with state and federal anti-discrimination law.