

**UNITED STATES BANKRUPTCY COURT
EASTERN DISTRICT OF VIRGINIA**

WILLIAM REDDEN
CLERK OF COURT

HONORABLE STEPHEN ST. JOHN
CHIEF JUDGE

COVER LETTER

Solicitation Number: VAEB 2019-001
March 22, 2019

The United States Bankruptcy Court for the Eastern District of Virginia is requesting proposals for pricing for the design, engineering, installation, and configuration of a complete, fully functional, digital courtroom audio system and AMX digital control system for **TWO (2) existing courtrooms (Bankruptcy Courtrooms 1 and 2)**, located at Walter E. Hoffman U. S. Courthouse, 600 Granby Street, Norfolk, VA 23510.

All contractors submitting a proposal for this task are required to develop and provide a technical proposal and a pricing proposal based on the requirements and specifications listed in the Statement of Work. The technical proposal shall consist of all the submittals required to be provided at the time proposals are due. Price proposals shall consist of the firm fixed prices offered for each individual item of equipment, labor, maintenance, travel, and optional items subject to the availability of Court funds, if applicable.

Please include any recommended optional or items that are required to be included in the overall evaluation, which may be exercised if funding is available. Award of this proposal will be given to the contractor whose technically acceptable proposal offers the lowest price to the Court. **Any awarded company MUST be entered into the Judiciary Financial System, JIFMS and the System for Award Management (SAM.gov) database prior to the award being finalized.**

MANDATORY SITE SURVEY TO BE HELD ON APRIL 17th, 2019 AT 10AM – Please Contact the COTR to confirm participation

PROPOSAL DUE BY 5:00 PM EST, WEDNESDAY, MAY 1, 2019.

Submit Proposals to: John Hemmer-Beaumont, Contracting Officer (CO)
Spottswood W. Robinson III and Robert R. Merhige, Jr. United
States Courthouse
701 E. Broad Street
Richmond, VA 23219
E-mail: john_hemmer-beaumont@vaeb.uscourts.gov
Phone: 804-916-2474

Direct Technical Questions To: Michael Artis, Contracting Officer's Technical Representative
(COTR)
Walter E. Hoffman U. S. Courthouse
600 Granby Street, Norfolk, VA 23510
E-mail: Michael_artis@vaeb.uscourts.gov
Phone: 757-222-7450

STATEMENT OF WORK (SOW)

I. NEEDS ASSESSMENT

The United States Bankruptcy Court for the Eastern District of Virginia requires the design, engineering, installation, and configuration of a complete, fully functional digital **audio** system and AMX digital control system for **TWO (2) existing courtrooms (Bankruptcy Courtrooms 1 and 2)**, located at the Walter E. Hoffman U. S. Courthouse, 600 Granby Street, Norfolk, VA 23510, which will meet the following requirements:

- A. New digital audio system with: new phone hybrid; 2-channel assistive listening system; wireless microphone, which must work with the existing courtroom audio system infrastructure, and be integrated into the new digital control user interface. **Note: Courtroom 1 requires a wireless or Bluetooth audio solution due to courtroom design issues. Transmission should be encrypted, if possible.**
- B. New digital control and switching system.
- C. Existing floor boxes, penetrations, wire trays, and conduit must be used and the contractor is responsible for all necessary additional floor and wall box plates, covers, and connectors.
- D. The contractor will use a certified AMX technician and programmer for the design, programming and installation of the new digital audio control and user interface system. The controls must include, **but are not limited to**, the following:
 - a. Judge and Deputy volume control and mute.
 - b. Judge and Deputy system reset.
 - c. System power on off button.
 - d. Judge and Deputy audio inputs and outputs level control.
- E. All control and user interface panel layouts must be approved by the Court prior to installation and programming.
- F. Install new 7-inch wide screen LED/LCD touch screen control displays.
- G. A copy of the control and user interface system source code along with audio system schematics and, as built, must be given to the Court prior to the Court accepting the final product.
- H. The Contractor will remove and dispose of all equipment deemed obsolete, damaged, and/or unnecessary by the Court.

- I. Extron and AMX equipment should be used for: control; distribution; switching; scaling; and twisted pair transmitting and receiving to maintain consistency with our other courtroom systems.
- J. Optional maintenance years must meet the same requirements as defined in section **IX. WARRANTIES REGARDING SERVICE PLAN, REPAIRS AND REPLACEMENTS.**
- K. The Contractor is responsible for providing a complete Schedule B list of pricing for all necessary design, engineering, equipment, shipping, handling, storage, installation, configuration, labor, programming, travel, disposal, warranties, and any additional options.
- L. System rack equipment must be able to be easily powered down by the judge or deputy clerk each day and turned on for hearings.
- M. If deemed necessary, the Court will have the authority to amend the Statement of Work at any time prior to award.
- N. The contractor will purchase and install the following for each courtroom:
 - a. JUDGE - a 7-inch wide-screen control panel with audio input and output levels and phone conference control.
 - b. DEPUTY - a 7-inch wide-screen control panel with audio input and output levels and phone conference control.
 - c. All the necessary digital control, scaling, converting, routing and switching equipment.
 - d. Lectrosonic DSP, Lectrosonic phone hybrid, amplifier, 2-channel IR assistive listening system with 2 wireless IR headsets and charging base and all necessary digital audio equipment required for a complete and fully functional digital audio system, which must work with the existing courtroom audio system infrastructure and be integrated into the new digital control user interface.
- O. Installation Scheduling:
 - a. The Court will determine the schedule for the installation and notify the contractor as to when installation can begin. Installation schedule will be determined by the Judge's docket.
 - b. The Court is not responsible for any storage costs for audio equipment purchased in advance by the contractor.
 - c. Once an installation start date is determined by the Court, installation, configuration, and testing will be completed within **10 business days** for each courtroom.
 - d. Installation will commence during calendar year 2019.

II. SUMMARY

- A. The Contractor shall comply with all Contract Documents, including specifications, line itemized list of parts and costs, drawings, wiring study, and project installation schedule.
- B. Statement of Work includes, but is not necessarily limited to, the following:
 - a. The Contractor shall provide a complete solution that meets all of the Court's requirements as stated above in the **Needs Assessment** section.

- b. The Contractor shall test all configured equipment prior to installation to ensure proper programming, operation, and compatibility. The work shall include everything necessary or incidental to complete the installation including power supplies, accessories, mounting devices, receptacle plates, wire, electrical boxes, racks, etc. The Government will provide conduit and AC power circuits with grounds. The Contractor shall notify and coordinate any work in the Court, including, drilling, cutting, or other work that may impact the existing Court and condition. Where an omission, discrepancy, or conflict may occur in the Contract Documents, including specifications, line itemized list of parts and costs, drawings, conduit/wiring study, and project installation schedule; the most stringent, higher quantity or design intent shall be implied. The Contractor shall restore finish hardware to original condition including painting, walls, millwork, ceilings, and attachments.
- c. The Contractor shall provide comprehensive training of system operation to Courtroom and IT Staff.
- d. The Contractor shall provide equipment that, where required, shall conform to the applicable requirements of the Underwriter's Laboratories, Inc., local codes, the National Electrical Code, and any other governing codes. Such items shall bear a label or mark indicating their conformance to the above requirements.
- e. The Contractor shall provide a one-year warranty on all repairs, replacements, equipment, and labor.
- f. The Contractor shall provide a courtroom control, audio system configured and installed for operation, simplicity, and low maintenance, with user-friendly controls.
- g. The Contractor shall integrate all equipment with the Government's infrastructure and existing equipment.
- h. The Contractor shall provide a price list of the required equipment, materials and labor if outside the SOW prior to signed agreement.
- i. Provide and install all required connectors, cables, and hardware for floor/wall box receptacles plates to match Government-supplied floor/wall boxes. All exposed cables shall be covered in black wire loom. Coordinate conduit, pull strings, access, and dimension requirements with Government. Verify exact requirements in field and submit shop drawings for approval to Government. Verify and inspect all necessary conduits and outlets. Verify any wall, millwork or cabinet modifications that are required. Submit Shop drawings to the Government and get written approval from the Government prior to fabrication. Show location and type of all special receptacle boxes to be supplied and/or modified by the Contractor in submittals. Provide connection cables for user and Government provided equipment. Test all connections and provide certified report (signed by Project Engineer).

- j. Provide and install all coordination, information, programming, engineering, equipment, wire, parts, and miscellaneous connectors etc., to provide a complete and operational system. All exposed wire shall be plenum rated and covered in black wire loom, where required. Fasten and route wires for concealed appearance. Coordinate appearance, routing and terminations with the Government.

III. SCHEDULING

- A. It shall be the responsibility of the Contractor to coordinate the installation of the system to be compatible with the Government, the work of Government's Representatives, and the overall construction completion schedule. The Contractor shall attend progress meetings and provide a conduit/wiring analysis at the time of submittals with all additional requirements.
- B. The Contractor shall assemble and test all equipment racks with associated equipment to verify proper operation before shipping to the courthouse. Test and shipping shall be coordinated with the Government.
- C. The Contractor shall provide prepared and certified operating personnel with adequate training on the completed system, including two training sessions.
- D. The Contractor shall provide prepared and certified technical personnel with adequate training on maintenance, trouble shooting, and support of users with the completed system, including at least two training sessions for Courtroom and IT Staff.

IV. DESIGN CONSIDERATIONS

- A. All equipment shall be professional grade and rated for continuous duty. Basic guidelines have been prepared with minimum performance requirements. These must be satisfied, unless a variance (separate document) is submitted and approved by the Government.
- B. All equipment must be self-supporting. Provide all necessary support hardware.
- C. Operating and Maintenance (O & M) manuals: Provide two bound O & M manuals and two CD's to the Government. Each shall contain printed operating instructions for all system functions whose format has been compiled specifically for each system. Providing standard factory equipment operating instructions alone is not acceptable. O & M manuals shall contain "as-built" schematic wiring diagrams of all systems, internal wiring diagrams of the central rack cabinet and control panels, parts lists, preventative maintenance notes, troubleshooting procedures, gain charts, impedance charts, plots of each equalizer setting measured at the equalizer output, numerical values for all control settings, and copies of "System Performance Tests and Adjustments" report. All information must be accurate as per written acceptance. These O & M manuals must be delivered no later than ten (10) business days before final acceptance of the contract completion.

D. Software, control codes, system configurations, settings, and other software shall be provided on CD ROM to the Government. Providing the factory software is not sufficient. ALL settings, codes, and programming for the system shall be provided. During Technical Training, provide instruction on use and set up of software.

V. PRODUCTS

MANUFACTURERS

- A. Equipment component models must have been commercially available for at least one (1) year prior to bid.
- B. All equipment and materials shall be new if replacement equipment is required.

CURRENT SYSTEM DESCRIPTION:

Figure 1: Photos of existing audio system.



Audio rack located underneath Judge's Bench in courtroom proper.

Existing poke-through(s) in floor and/or gang boxes at each courtroom location. Except Courtroom 1, as noted above, which needs to be wireless or Bluetooth.

Cables are in existing conduit stub outs and conduit mounted on the ceiling below the courtrooms.

Sennheiser IR transmitter and wireless headsets.

Power at each location.

VI. PROPOSED SUBSTITUTIONS

- A. Where specific equipment is described, it is not the intention to discriminate against the products of other manufacturers, but rather to establish a standard of quality. All proposed substitutions shall be submitted as alternates with complete data.
- B. The Government requires manufacturer's original specification tests. The Government will evaluate and approve the substitutions.

VII. EXECUTION

HARDWARE INSTALLATION

- A. Wire all systems in accordance with Standard Broadcast Practices and the National Electrical Code, NFPA, SMPTE, NAB, UL, EIA, FCC, NTSC, Design and Installation (SAMS), and any other authority having jurisdiction. When a conflict occurs, follow the most stringent requirements. Provide the government with information as required or requested.
- B. Build out or terminate all circuits containing passive components to provide matching impedances. Record values of all pads.
- C. Run all microphone level lines and line level circuits (up to +30 dbm) in separate conduits dedicated to these purposes. Use electrical ducts within racks.
- D. All lines in conduits must be insulated and shielded from each other and from the conduit the entire length and must not be spliced. Ground all line shields at the amplifier end of the respective circuits only. Use "wedge on" connectors or heat-shrink tubing to insulate the other end.
- E. Ground all grounds effectively at one earth connection. Water pipes do not suffice as grounds. Use earth ground or approved equal. Use rosin core solder or standard mechanical connections and terminal strips for all joints and terminations.

- F. The installation of all work must be in accordance with commonly accepted industry standards and practice. A qualified Engineer shall exercise engineering supervision over the entire installation and inspect the installation at least twice prior to Acceptance Testing. It is the responsibility of the Contractor to cooperate with other trades in order to achieve well-coordinated progress and satisfactory final results. The Contractor must watch for conflicts with work of other contractors on the job and execute moderate moves or changes as are necessary to accommodate other equipment or preserve symmetry and pleasing appearance.
- G. All cable and wire ends shall be clearly tagged with destination and function markings in accordance with the wiring diagram.
- H. Rack shall have power on one side and low voltage on the other side, and shall be harnessed for clean appearance.

VIII. FIELD QUALITY CONTROL AFTER REPAIRS AND/OR REPLACEMENT (ACCEPTANCE TESTING)

- A. Report:
 - a. Upon completion of the tests and necessary adjustment, submit two (2) hard-copies of a written report presenting test results, including numerical values for all measurements, for review by the Government prior to demonstration and "Acceptance Testing."
 - b. With the above report, submit written certification that the installation conforms to specifications, is complete, and is ready for inspection and testing by the Government.
- B. Monitor Hum and Noise Level:
 - a. Test overall hum and noise to be at least 50 dB below rated power output with amplifier controls set for optimum signal-to-noise, using input from cassette, DVD, and gooseneck microphones.
- C. Electric Distortion:
 - a. Load power amplifiers with resistors matching nominal impedance of output terminals used in system in place of actual loudspeaker loads.
 - b. Adjust gain controls as for hum and noise level test.
 - c. Apply 250, 500, 1,000, 2,000, and 4,000 Hz sine wave signal from oscillator having less than .01% T.H.D. to each microphone and line level input at level required to produce full amplifier output.
 - d. Distortion must measure less than 0.5%.
- D. Parasitic Oscillation and RF Pickup:
 - a. Set up system for each specified mode of operation.
 - b. Use an oscilloscope with a 5MHz bandwidth and speaker monitoring.
 - c. Check to ensure that the system is free of spurious oscillation and RF pickup in the absence of any input signal and also with the system driven momentarily to full output at 160Hz.
 - d. Repeat this test for each mode of operation of the lighting dimmers (incandescent, neon, and fluorescent).

E. Buzzes, Rattles and Distortions:

- a. Apply high quality music and adjust volume for peak output.
- b. In both cases, listen carefully for buzzes, rattles, and objectionable distortion.
- c. Correct all causes of such defects. If cause is outside system, promptly notify the Government indicating cause and suggested corrective procedures.

F. Equalization:

- a. Equalize the sound systems in order to provide uniform seat-to-seat response, raise the threshold of feedback, suppress ring modes, and ensure natural, pleasing sound in equal and adequate amplitude with maximum degree of intelligibility, and provide performance conforming to the requirements specified under "Acceptance Testing." Equalization shall be adjusted for flat response from 125 Hz to 2k Hz and -3 dB per octave above 2k Hz.

G. Level Balance:

- a. Adjust all items of similar equipment for identical measured voltage gain.
- b. Unless otherwise specified, use tamper-proof security covers on all controls affecting overall system level balance and signal-to-noise ratio, such as power amplifier input level control, and input-output level controls for equalizers, mixers, amplifiers, etc.
- c. Some controls may require re-adjustment as the result of "Acceptance Testing."

B. Controls:

- a. Meet with the Government and the Government's Representatives and make system control changes until satisfactory performance is achieved.

C. Final Acceptance:

- a. Upon approval of the Contractor's test report and at a time set by the Government, demonstrate to the Government that the final system adjustments and tests meet the performance requirements. Provide all labor, materials, tools, and measurement equipment necessary for these tests and adjustments.
- b. Contractor's Representatives performing these tests must be thoroughly familiar with all details of the system. The test team must include the Field Supervisor and the Engineer in charge during the course of the installation work.
- c. Contractor is responsible for all costs incurred to satisfy criteria requirements.
- d. Acceptance Tests may include speech intelligibility surveys and subjective evaluations by observers viewing and listening at various positions under various operating conditions, using speech, music, and live or recorded effects material.
- e. Measurement of frequency response, distortion, noise, wave form, or other characteristics may be performed (or a demonstration test requested) by the Government on any item or group of items deemed necessary to determine conformity with criteria.

IX. WARRANTIES REGARDING SERVICE PLAN, EQUIPMENT REPAIRS AND REPLACEMENTS

- A. Installation of each system in its entirety shall be installed per manufacturer's specifications and warranted by the Contractor for a period of one (1) year from date of written acceptance to meet all performance requirements outlined herein. Warranties may not be pro-rated.
- B. During the warranty period, no charges shall be made for any labor; new, repaired, replacement equipment; shipping and handling; or transportation necessary to maintain performance and functions.
- C. During the warranty period, the Contractor shall respond with remedy to a trouble call within twenty-four (24) business hours after receipt of such a call, and shall provide a 24-hour service phone number, and Contractor shall provide a prepared and certified technician onsite at the direction of the Court.
- D. Equivalent replacement equipment shall be immediately provided when on-site repairs cannot be made.
- E. At least two routine inspection and adjustment visits will be scheduled for the first year. Submit reports to the Government.

X. GOVERNMENT COORDINATION

- A. Coordinate excluded equipment.
- B. Review and Approve touch panel control page layouts.
- C. Review and Approve submittals.
- D. Review and Approve Variance Submittals.
- E. Coordinate integration into millwork, conduit, and power.
- F. Coordinate mount location.
- G. Review and Approve all substitutions.
- H. Review report of test results.
- I. Acceptance testing.

XI. GOVERNMENT PROVIDED ITEMS

- A. Conduit, AC power circuits with grounds, floor boxes, pull strings, and power.
- B. Computers, existing equipment, digital and analog recorders.

C. Schedule for installation, training, and acceptance unless noted for replacement.

D. Phone connection and configuration.

XII. TRAINING

A. Technical - Technical Training of Government personnel excluding initial training needs as necessary.

XIII. SOFTWARE

A. The Government expects that the source code for this installation will be delivered to the Government at the completion of the installation. The installer shall provide a labeled CD-ROM inserted into a plastic computer media sleeve containing software setup and configuration files for all configurable equipment, including control system processors, software controlled screens, computer workstation controllers, software-configured signal switchers, mixers, DSP units, or other signal processors. Provide all software settings/configuration files, custom source-code, compiled programs, and all custom display screens on CD-ROM, organized by system/location in subdirectories. Provide all installation programs and drivers necessary to transfer the software settings or programs to each respective piece of equipment. Complete documentation for the software shall be provided as well as the CD-ROM, which shall be furnished in a binder at project closeout along with a printout of the contents of the CD-ROM.

ATTACHMENT A

XIV. PRICING SCHEDULE

In addition to a detailed proposal with line item list of required equipment, the Contractor shall submit firm fixed pricing based on the pricing schedule set forth below.

Pricing is inclusive of all labor, equipment, tools, materials, parts, transportation, travel, supervision, coordination, etc. required for a complete operational installation as described in the Statement of Work.

PRICING FOR TWO (2) BANKRUPTCY COURTROOMS (1 and 2):

Equipment	\$
Labor	\$
Travel (If Applicable)	\$
Optional Items	\$

Miscellaneous Items	\$
Equipment Warranty & Service Plan (Year One)	\$
<u>TOTAL INSTALLATION</u>	\$
Equipment Warranty & Service Plan (Option Year Two)	\$
Equipment Warranty & Service Plan (Option Year Three)	\$
Equipment Warranty & Service Plan (Option Year Four)	\$
Equipment Warranty & Service Plan (Option Year Five)	\$

END OF SOLICITATION