

---

# Statement of Work

|              |                                     |
|--------------|-------------------------------------|
| Date         | 11/30/2022                          |
| Client       | Cherokee Nation Entertainment (CNE) |
| Job Name     | RAM Audio & Control System Upgrade  |
| Requested by | Chris Farmer                        |

---

## Summary

This is for procurement and installation of a new QSYS Audio & Control system. This will be replacing an existing Peavey Media Matrix audio processor & amplifiers and an older Crestron control system. This is for the Cherokee Casino in Ramona, Ok.

This work consists of installing all AV equipment per specifications, labeling, and testing equipment.

## Submittals and Manuals

1. Submit with bid a list of 2 projects of equal scope and references (preferably casinos).
2. Example screen shots of touch panel designs with the following criteria:
  - Video Routing (video matrix routing, video presets)
  - Audio Volumes (wireless mic's, source volumes, etc.)
  - Cable Box Controls
3. Lead times on all equipment.

## Requirements of this section are:

1. Within twenty (20) calendar days after the date of award of the Contract, the Contractor shall submit to the CNE AV team for review.
2. The submission shall consist of five major sections with each section separated with index tabs. Each page in the submission shall be numbered chronologically and shall be summarized in the index.
3. The first section shall be the "Index" which shall include the project title and address, name of the contractor.
4. The second section shall include a copy of the Installing Contractors valid Project Managers CTS-I Certification, QSYS Programmer Certification, and list of proposed instrumentation, if applicable, for testing to be used by the Contractor.
5. The third section shall contain an original factory data sheet for every piece of equipment in the specifications.
6. The fifth section shall contain the complete listing of equipment being furnished, along with the value, so that those items can be identified as fixed assets by the Cherokee Nation.

---

## Project Scope

This SOW covers the following components, activities, deliverables, and assumptions. Included in this will be hardware procurement, labor to install new av equipment, all required cabling, labeling of all equipment installed, all programming and configuration required, and customer training on system operation.

### Components:

#### 1) Contractor Provided

| Description                               | MFR  | MFR P/N      | QTY |
|---|------|--------------|-----|
| QSYS Processor (1 spare)                  | QSYS | Core 110f-V2 | 2   |
| QSYS UCI License                          | QSYS |              | 1   |
| QSYS Scripting License                    | QSYS |              | 1   |
| QSYS 10" Touch Panel Wall Mount (1 spare) | QSYS | TSC-101-G3   | 5   |
| QSYS 8 Channel Amplifier                  | QSYS | CX-Q 8K8     | 2   |
| QSYS QIO IR1x4                            | QSYS | QIO IR1x4    | 2   |
| QSYS QIO GP8x8                            | QSYS | QIO GP8x8    | 1   |
| QSYS QIO ML4i (spare)                     | QSYS | ML4i         | 2   |
| QSYS QIO L4o (spare)                      | QSYS | L4o          | 1   |
|   |      |              |     |
|   |      |              |     |
|   |      |              |     |

#### 2) CNE Provided

| Description  | MFR   | MFR P/N | QTY |
|--|-------|---------|-----|
| All electrical requirements                                    |       |         |     |
| Any facilities work to patch holes from previous touch panels  |       |         |     |
| All network drops as needed                                    |       |         |     |
| Cisco 9300L Network Switch(CNE networking team will configure) | Cisco | 9300L   | 1   |

- 3) **Miscellaneous** – Contractor will provide all miscellaneous components to complete the install except the specific items listed in “CNE Provided” section above. This includes, but not limited to, cables, connectors, j-hooks, brackets, custom panels, labels, hardware, tie wraps, etc. Zip ties are not allowed. Cabling above ceiling must be kept off the ceiling, use j-hooks to accommodate this.
- 4) **SOW:** This is a project to upgrade the AV control system at Cherokee Casino – Ramona. The control system is the primary component that allows users to control the audio and video at the property. The upgrade includes replacing the Crestron control system and touch panels with a new QSYS control system, which is the new IT/AV standard for control. The QSYS programmer will need to write all code and test prior to removing the Creston system since this is an open casino. All cables will be dressed neatly and labeled appropriately. The QSYS programmer will meet with CNE AV team ahead of install date to obtain system information, functionality, etc. The programmer must be onsite to load code and fully test the functionality of the system.  
**“Hot Button”** description: A button that can be selected that recalls a video routed matrix preset. When deselected the destinations will route back to the source that was previously displayed.

Labor for this project consist of 1) Remove the existing Peavey audio processor and replace it with the QSYS Core 110fv2. 2) Replacing the Crestron touch panels with the new QSYS touch panels. 3) Remove the existing Peavey amplifiers and replace with the new QSYS amplifiers. 4) Connect audio from Core to amplifiers via QLAN and connect all analog inputs and speaker zones as design dictates. 5) Remove the current Crestron processor and install the QSYS IR boxes, connecting the IR's to the set top boxes. 6) Install the QSYS GPIO box for the fire alarm relay. 7) Upload code and fully test. The programming must be done ahead of time and before arriving to site to make the switch over is as seamless as possible. 8) Turn over all spares to a CNE IT/AV employee with a detailed equipment list and sign off sheet. 9) Final testing and commissioning must be scheduled with a CNE IT/AV employee. 10) Final sign off will be obtained by a CNE IT/AV project manager at the job site after final walk thru.

## Tasks:

- 1) **Pre-Install** –
  - Schedule a Project Kick-Off meeting with the CNE IT/AV project team.
  - Contractor will meet with CNE to develop a project timeline and a systematic install approach.
  - Provide a wiring designation schedule for each circuit leaving each piece of equipment and drawings showing system wiring plans. CNE must approve before installation can be scheduled.
- 2) **Installation** – Contractor will install all necessary components to complete the project. This will include components provided by CNE.
  - Conditions
    - Due Casino operational hours, project work hours may be early mornings depending on guest impact of specific tasks. CNE will dictate as necessary.
    - Work schedule will be coordinated with CNE.
    - Contractor is responsible for keeping all work areas clean.
  - Cabling General - Contractor will install, terminate, and test all cabling needed to complete the project.

- Equipment – Contractor is responsible for procuring and installing all components of the audio upgrade needed to complete the project. Label all equipment with appropriate names and network information as applicable.

3) **Testing & Commissioning** –

- Provide all instruments for testing and demonstrating in the presence of the owner. Check all circuits and wiring to verify they are free of shorts and grounds.
- The owner reserves the right to make independent tests of all equipment furnished to determine whether the equipment complies with the requirements specified herein and to accept or reject any or all the equipment based on the results thereby obtained.
- System field wiring diagrams shall be provided to the owner prior to completion of the installation.
- Upon completion of the installation of the equipment, contractor shall provide to the owner a signed statement from the equipment manufacturer that the system had been tested and functions properly according to the specifications.

4) **Training** –

- Contractor shall provide a minimum of 2 hours of on-site training to CNE personnel on all system functions.

**Deliverables:**

(To be provided within 10 days of completion)

- 1) Provide a Warranty Letter to include equipment and installation warranty dates.
- 2) Provide all equipment manuals, any associated software discs, and any unused components.
- 3) Provide As Built documentation, to include but not limited to, device location information, touch panel instructional with screen shots, wiring diagrams, functional logic and or flow diagrams, rack elevation drawings as applicable, network interface information for each device, interconnecting network switch name(s), IP Address(s), port numbers, and VLAN(s).
- 4) All Source Code
- 5) Test Reports
- 6) Service Contract (if applicable)

---

## Key Requirements

- Programmer must be onsite during implementation and testing.
- CTS-I certification is required for the Lead Installer or Project Manager running the job and that person must be onsite during install.
- Contractor must keep TERO up to date on weekly basis.
- Must follow Avixa standards.
- An End of Day Update, via email, must be submitted daily to the CNE AV Team.
- Contractor has all necessary software tools to accomplish tasks associated with the project.
- Contractor understands and agrees to late night and/or overnight working hours if needed.
- Specified Parts:
- No substitutions allowed unless owner permission is provided in writing.
- Payment to contractor shall not be authorized until all deliverables are met.
- Bid must include these two items:
  - a. TERO Fee – ½ of 1% of total project cost.
  - b. Non-native worker fee -- \$25 per day, per non-native worker.





