



Procurement and Contracting Services

Request for Proposals to provide Arizona Public Media New Facility Broadcast Systems Integration

ADDENDUM #1

**Please mark all proposal submission
Envelopes with the following information**

**Sealed RFP # L192407
Due on January 19, 2024 no later than 2:00PM PM, MST**

The following questions were received prior to the close of the technical question period ending on November 28, 2023 at 12:00PM MST:

1. The design is overall very sound, however there does not seem to be mention of hybrid on-premises/off-premises workflows that are quite common by today's and likely the future's requirements. Is there desire for a platform agnostic solution to receive remote source contributions via various AoIP/VoIP protocols and/or most virtual meeting room platforms (Teams Zoom, Google Meet,etc.)?

All PBS content is delivered to PMM (our JMC) via PBS SIX interconnect and arrives as files via cloud services. In pattern feeds are still delivered via satellite for both NPR and PBS and via terrestrial network. LTN provides incoming and outgoing feeds for both occasional and full time on their terrestrial platform. Zoom is used for production in radio and television especially during pledge. Any future feeds may use SRT or RIST based protocol. Most of this is out of scope for the RFI except where the handoff of the IP or baseband feed is. There will be a teleconference component built into the Community studio DCC and several of the 2nd floor staff conference rooms that will require Zoom camera & audio components.

2. Is there desire for a platform agnostic solution to distribute video, meetings or content via various AoIP/VoIP protocols and/or to most virtual meeting room platforms (Teams Zoom, Google Meet,etc.)?

There are several existing protocols used withing the plant for audio (Wheatnet & Dante) the goal of the new facility is to try to unify as many components into the IP world, so SDI to SMPTE 2110, house cable to IP and making sure that there is not a separation between broadcast and AV. AZPM has designed Cat 6 connection to all monitors, desktops, clocks and traditional I/O location to support IP based video and audio systems. Zoom is used for production in radio and television and in house meetings especially during pledge.

3. If SMPTE ST-2110 is the ideal standard, would there be an interest in an alternative network plan that would achieve this while staying within your budget?

AZPM has no interest in alternate IP standards such as NDI. AZPM will entertain hybrid SDI/2110 systems for routing and common IP video implementations for IPTV and digital signage.

4. 5.2.1 Core System. You stated that you want to be able to support a full 2110 plant going forward. How much flexibility is there in the current design for changes to a more 2110-centric core design while staying within your \$10M budget.

The RFP calls for a hybrid approach that will support HD SDI, 12G and SMPTE 2110 to the extent possible. We have explored dual and single spine 2110 designs,

and if a vendor can propose either that meets our distribution requirements within our budget, we are happy to explore innovative designs.

5. 5.2.1 Core System . You indicated that an overall "Uber" system orchestration layer was not required. Is this still a preferred condition if it can be accomplished within your budget?

Yes, some routing switchers can provide for both SDI and SMPTE 2110 signal management. They manage the orchestration withing their own protocols, AZPM will entertain any design that provides the functionality required withing the budget specified. It will be judged not solely on cost, but functionality, robustness and supportability.

6. 5.2.1 Core System. Can you indicate which areas you would specifically like to have or not have a shootouts or options - and if you would prefer virtual or onsite - including but not limited to the following (listed below in separate cells): **Areas of interest are highlighted.**

- | | |
|-----------------------|--|
| a. 5.2.1 Core System | - System Orchestration |
| b. 5.2.1 Core System | - Networking Core (Broadcast / Facility) |
| c. 5.2.1 Core System | - Timing and Reference |
| d. 5.2.1 Core System | - Video Routing |
| e. 5.2.1 Core System | - Video Processing |
| f. 5.2.1 Core System | - Video Switching |
| g. 5.2.1 Core System | - Master Control |
| h. 5.2.1 Core System | - Multiviewing |
| i. 5.2.1 Production | - Cameras (Studio) |
| j. 5.2.1 Production | - Cameras (PTZ / POV / Streaming) |
| k. 5.2.1 Production | - Lenses |
| l. 5.2.1 Production | - Pedestals |
| m. 5.2.1 Production | - Prompting |
| n. 5.2.1 Core System | - Captioning |
| o. 5.2.1 Production | - Tally, Clocks and Timers |
| p. 5.2.1 Core System | - Automation |
| q. 5.2.1 Core System | - Video Storage |
| r. 5.2.1 Core System | - Graphics |
| s. 5.2.1 Core System | - Clip Players |
| t. 5.2.1 Core System | - Playout Servers |
| u. 5.2.1 Core System | - Audio Routing |
| v. 5.2.1 Core System | - Audio Processing |
| w. 5.2.1 Core System | - Audio Console(s) |
| x. 5.2.1 Core System | - Audio Storage / Editing |
| y. 5.2.1 Production | - Wired Microphones |
| z. 5.2.1 Production | - Wireless Microphones |
| aa. 5.2.1 Core System | - Intercom |
| bb. 5.2.1 Core System | - IPTV |
| cc. 5.2.1 In-room | - In-room Control and Panels |

dd.5.5	In-room	- Projectors
ee.5.5	In-room	- Flat Panel Displays
ff. 5.5	In-room	- Speakers
gg.5.2.1	Core System	- RF ID System Provided by GC
hh.5.2.1	Core System	- KVM
ii. 5.2.1	Core System	- Test Equipment
jj. 5.2.1	Core System	- Fiber / Coax / other Cabling Specified by SI , purchased and installed by GC
kk. 5.2.1	Production	- Furniture
ll. 5.5	In-room	- Lecterns
mm. 5.2.1	Core System	- Racks
nn.5.5	Core System	- PDU's
oo.5.2.1	Core System	- Cable Trays Provided by GC.
pp.5.2.1	Core System	- Other Areas Not Mentioned Above

7. 5.6 Core System. You mentioned in the pre-bid meeting that you were shooting everything in 4K HDR and were going on-air with ATSC 3.0 in early 2024. You also mentioned audio production in 5.1 and Atmos. Can you elaborate on any additional production needs you anticipate as this project moves forward to support your implementation of ATSC 3.0?

The ATSC 3.0 initial launch is via channel sharing with 5 other stations in market where we will provide some content in 1080P/60 HDR. Existing network content will be upconverted to 1080p HDR (PQ) with 5.1 support. Our digital outlets (YouTube) will host native 4k/1080P HDR content with stereo or 5.1 audio. The ATMOS requirement is for revenue generation (rental of suite) not for own productions.

8. 5.7.2 Standards. You have pared down the system design requirements substantially from the original RFP and mentioned during the pre-bid that you would be willing to trade less equipment for a more future proof infrastructure. Can you be more specific as to which areas / equipment would be of a lower priority to enable us to know where tradeoffs will and will not be acceptable.

The equipment/system removed from the original RFP was the 'video wall' in the DCC and the built in per seat conference monitor stations. This eliminated ~\$750k from the budget. Also, the Studio B control room (will be managed from Studio A) later Fly-pack solution will be implemented. The Studio A full camera systems (Camera, CCU, Lens, pedestal, prompter, jib) could be purchased if funding available or put on hold but prewired, as this takes ~1M in hardware off the budget. No other systems are planned to be scaled back or eliminated.

9. 5.7.1 Core System. The Ultrix FR12 requires 1x Ultricore-BCS. Your spreadsheet lists 2x BCS controllers. Is this required? Redundant BCS? Desired Yes, Required

No.

- 10.5.7.1 Core System. How many PTZ cameras are required? There are 4x PTZ-12G-Black cameras listed with 6x PTZ wall brackets. Should it be 5x Cameras and 5x Wall Brackets?

There will be a total of 10 PTZ cameras but will cable for PTZ cameras in all radio and TV studios so they can be shared if needed. The Studio A, B, community and Radio performance spaces will get first round of PTZ cameras. Future uses are radio production and control rooms.

- 11.5.7.1 Core System. Please confirm switcher requirements. Spreadsheet lists 1x Carbonite switcher and 2x TouchDrive 3S panels. Is this correct?

One Carbonite and one panel. The second panel will not be needed until the Studio B control Room is built at a future date.

- 12.5.7.1 Core System. Please clarify products labeled "See Router Section - Multibuss routing control." Are these router panels in addition to the 8x RCP-QE18 and 15x RCP-QE36 listed? Please provide Router Section document.

The router control panel allocation is 24 total Studio A Video (4) Studio A Audio (1) Master Control (3) KUAT CR (1) KUAZ CR (1) Control Room C (1) News (1) PodCast (1) Edit 1-6 (6) Audio Performance CR (1) Machine Room (1) EFP (1) Shop (1) DCC (1) Most will be RCP-QE18 with RCP-QE36 where needed.

- 13.5.7.1 Core System. Does every openGear frame require a redundant Power Supply? Listed are 14x openGear Frames with 11x PS-OGX.

Yes. All broadcast support equipment will have optional 2nd power supplies where available.

- 14.5.5 Commissioning. We do not see commissioning/training from any of the various manufacturers in your bill of materials list. Typically, even with the integrator handling integration and basic commissioning, some manufacturers require onsite commissioning and operational training. Would you would like these services listed separately and in addition to the integrator's labor?

Yes, please list separately.

- 15.5.18 Detailed Pricing. While you specified that year 1 of the manufacturers SLA would need to be part of the equipment CAPEX and subsequent years would be from an OPEX account not part of the project budget, it wasn't clear how many years you would like to see on the RFP and if you can commit to those future years - with payment in those future years - upfront.

Typically, the manufacturer provides one year with purchase. Any future year support would need to be covered under operating expense therefore we request these be quoted as optional.

- 16.5.18 Detailed Pricing. In order to provide the best possible pricing, we typically work with large organizations and governments to leverage any pricing contracts that may exist. Are there any vendors that AZPM, UA or the State of AZ has negotiated or contract pricing that you are aware of and can share or that we should investigate?

AZPM will leverage its EDU and PBS status where applicable to help secure any pricing benefits. Some vendors have state pricing and several have sole source agreements with other state universities.

- 17.5.18 Detailed Pricing. The tax rate and tax exemption status was brought up during the pre-bid call. Do you have any additional information on this and the physical address and zip code of the building?

See number 22 The building will be built at the corner of Kino Parkway and 36th Street Tucson AZ 85713

18. In the "GMP 23.09.25" form it is listed as the system integrator to Design, Install, and Commission Signage -Digital (Interior & Exterior). Can you provide locations and specs for these areas?

This is specifically for the IPTV system that will support the ability to play stills, loops and animations in the Conference Rooms, etc. The outdoor signage refers to the use of any outdoor video wall which is not in scope of the RFP.

FFE - Signage																			
Exterior Naming / Branding Signage					X				X	X		X	X				NA		
Exterior Wayfinding					X				X	X		X	X				NA		
Exterior Address (Code Required)	X				X				X			X					NA		
Interior Wayfinding											X			X				NA	
Interior Wayfinding (Egress Pathways - Code Required)	X				X				X			X					NA		
Signage - Room Numbers / Names											X			X				NA	
Code Signage - Fire Department Req'd	X				X				X			X					NA		
Signage - Digital (Interior & Exterior)				X				X	X					X					X
Blocking for all Signage	X				X				X			X					NA		

- a. Will the system integrator be responsible for purchase of all fiber pigtails and splicing even if fiber is pulled by other parties into CER?

The University will terminate fiber and Cat6 at desktops, but SI will do within technical rooms and BSPs. University will do all patches and terminations in MDF and IDFs.

- b. In section 5.5, can you provide a list of AZPM supplied and "others" supplied equipment?

Yes, see separate spreadsheet "AZPM Furnished Equipment."

- c. In section 5.5, can you provide the AZPM drawing specifications?

Yes.

- d. What is the manufacture is the customer supplied automation, record, and playout?

The current system supplied by PMM is Crispin with Harmonic Playout Servers.

- e. In section 5.7.10, The Video router is described as being 288x288. Is that count to be spec'ed as day 1 or be scaled to a minimum of 288x288?

288 square is frame size, initial IO target is listed in annex.

- f. Does only physical (BNC/HDBNC/DIN) connections count towards port counts?

Will depend on 2110 and 12G system options proposed.

- g. How many ports are to be 12G? What is the standard resolution of operation for the building?

UHD for production and HD for Master Control. Annex A has a proposed router list that will be a combination of HD SDI, 12G and SMPTE 2110. The list may expand or shrink depending on final design.

- h. In section 5.8.3 Studio A Technical Requirements – Studio Technical requirements include the following: Stereo Speaker system to fill studio. Could we get more clarification?

Studio A will be used as a presentation space with live audience for non-broadcast activities. The audio control for the sound system will be controlled from a remote "tile" using the Control A audio console and will need to feed a quality stereo sound system in the studio to fill the space. This will interface with the required projection system for that space.

19. Is the design now going to be constrained to the wiring infrastructure you have selected or is it a place holder?

The pipes and trays and BSPs have been specified to carry a maximum estimated cable count. That is the only constraint.

20. Any restrictions on strategies, is there any direction you could provide as systems you would not want to see as alternatives or systems that are more exciting?

No, systems shall be flexible, extensible, and modern thinking is welcome. Critical areas need best of breed solutions but some areas such as monitor walls can use consumer products. Minimal amount of baseband signals and legacy single purpose systems.

On the AV side we are looking for an IPTV system and conference room tech that does not operate separately from other house systems, We'd like to avoid Creston/AMX drop-in systems for these spaces.

21. Can you let us know how much sales tax would need to be charged and if this is considered in the budget cap?

The tax is considered as part of the budget cap.

The University is taxable and will pay applicable tax. Please see the Arizona Department of Revenue for any tax guidance <https://azdor.gov/> and/or your accounting firms for specific tax and or taxable amounts.

Building Address: corner of Kino Parkway and 36th Street Tucson AZ 85713

22. AZPM wishes to provide link to renders:

Here are links to the:

Clean renders -

<https://drive.google.com/drive/folders/1W9psKEzkdPwQsxYbNewkRwIYURowWCyX?usp=sharing>

Staged renders -

<https://drive.google.com/drive/folders/1OlVlsstdBlbEnwWk0rE7GHfUFboOCky2?usp=sharing>

23. Room Interconnection schedule and BSP drawings have been uploaded to Box folder.

End of addendum, all else remains the same.