

**ADDENDUM TWO
QUESTIONS and ANSWERS
6913 OF**

Date: 09/27/2024

To: All Bidders

From: Josh Riekenberg, Procurement Contracts Officer
AS Materiel State Purchasing Bureau (SPB)

RE: Addendum for Invitation to Bid (ITB) Number 6919 OF for 53' Expandable Mobile Television Production Trailer, including a fully integrated IP routing system, electronics systems installation and integration, Video/Audio/Signal wiring, connectors and patch panels to be opened on October 11, 2024 at 2:00 p.m. Central Time

#	Document	Page	Section	Question	Response
1	6913 OF Production Trailer (Revised 2)	1 (PDF 10)	I, A General Information	Internal configuration of new production truck can significantly impact cost. Please provide a floor plan of the proposed new truck, indicating name, location and quantities of both equipment tracks and operating positions.	Link See Attachment D Response 1A and Response 1B Response 1A is most accurate
2	6913 OF Production Trailer (Revised 2)	1 (PDF 10)	I, A General Information	It is understood the new production truck will replace NPM's existing truck. For reference, would you please provide a floor plan of the existing truck indicating name, location and quantities of both equipment racks and operating positions?	See Response 2 Current Layout Link See Attachment D

3	6913 OF Production Trailer (Revised 2)	1 (PDF 10)	I, A General Information	Can NPM provide a set of drawings for the existing truck?	See Designcad Trailer drawings Link *Some drawings are not up to date
4	6913 OF Production Trailer (Revised 2)	1 (PDF 10)	I, A General Information	Can NPM provide photos of the existing truck showing internal operating spaces, operating consoles, consoles and monitors/monitor walls, plus photos of the external video and audio connection panels?	Current trailer pictures See Attachment D
5	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	How many PRODUCTION operating positions are expected in the Control Room? (Please name each position)	8 to 9 – Producer 1, Producer 2, Director, Technical Director, Graphics 1, Graphics AP, Graphics 2, AD, Tech manager
6	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Please specify the size and quantity of displays expected for the control room monitor wall. Will the existing truck's control room monitor wall be transferred (please identify) or replaced with new?	Probably 10 monitors, size TBD, Replace with new.
7	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Is the audio monitoring in the control room to be stereo or 5.1 surround? Will the existing truck's speakers be transferred (please identify) or replaced with new?	Stereo. Speakers will transfer to new truck, NPM will provide new speaker AMP.

8	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	How many racks are expected in VIDEO CONTROL and how many SHADING positions are expected in the new truck?	Refer to response 1A, 5 racks, up to 3 shading positions
9	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Are all camera connections on side of the new truck be SMPTE 304/311 or are some triax connections required?	There will need to be a mix, Wired for 12 SMPTE and 6 Triax connections.
10	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Does the shading area require a camera cable patchbay(s)?	No
11	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Are the monitors and scopes in the Video Control area expected to be transferred from the existing truck (please identify) or new?	Yes, 2 existing Sony PVM 170's (will need one more for third position). Existing Prism scope and WFM 5200
12	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	How many AUDIO operators are expected to man the existing Studer audio console?	One to operate the cosnole. A side working area for an additional audio engineer with an intercom keypad preferred.
13	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Is the audio monitoring in the audio booth to be stereo or surround?	Stereo for initial design. Studer support surround setup, we will have Studer surround monitoring on patch bay for future upgrade if needed.
14	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Please provide a listing of the existing Studer audio console's model number and peripherals being transferred out of the old truck into the new truck.	See Response 14A / NPM Studer Vista X.zip See Attachment E Link

15	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Will audio patching be required in the new truck's audio booth and if so, please specify the type(s) and quantities required?	Audio patch bay required, need to include analog and AES. Please see "NPM IP Truck Audio Patchbay Layout version 1" for types and quantity. AVP Morph frame and modules required. See Attachment F Link
16	6915 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	How many REPLAY operating positions are expected in the new truck? (Please name each position)	Wired for 5 EVS positions, 1 (Lead),2,3,4,5
17	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	How many REPLAY operating positions are expected in the new truck? (Please name each position)	S/A
18	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Please specify the size and quantity of displays expected for the replay room monitor wall. Will the existing truck's replay room monitor wall be transferred (please identify) or replaced with new?	Replace with new, design TBD One MV per position and one VGA per position
19	6913 OF Production Trailer (Revised 2)	35 (PDF 44)	D. Trailer Design and System Integration	Can we assume all mobile unit external equipment (announce booth headsets, commentator boxes, field microphones, IFB boxes, earpieces, panheads, camera tripods, wheel sets, field monitors, intercom belt packs & headsets, camera cable harnesses, audio mults, boxes &	Yes

				whips, video harnesses, single video & audio cable, power cables will be transferred from the existing truck to the new truck?	
20	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	Please confirm the column "stays with truck" means respondents will NOT be required to remove this gear and transfer to the new truck.	Confirmed
21	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	For equipment listed in the "stays with truck" column, will new replacement gear be required to provide the old gear's functionality in the new truck?	No
22	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	What is respondent's role for equipment that is listed in the "remove" column, but not in the "Install in new truck" column?	NPM will be responsible for removing equipment that is not earmarked for new trailer installation.
23	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	For equipment that is listed in the "remove" column, but is NOT indicated to "Install in new truck" whose functionality is expected to be required, (eg. RTS PS31, RTS IFB828, RTS SAP1626), do respondents need to include replacement equipment?	please see "HD Truck Equipment modified list" file Attachment G Link

24	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	For equipment lines that indicates multiple devices, please provide make, models and quantities (eg. Evertz frame and cards, Wohlers, etc.	please see "HD Truck Equipment modified list" file and Evertz Frame Cards.pdf See Attachment G Link
25	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	Are the existing LDX86N and LDX80 cameras SMPTE hybrid fiber or Triax types?	LDX86N are SMPTE hybrid fiber LDX80's are Triax
26	6913 OF Attachment B 1.0	Pgs 1-3	Equipment Transfer List	What are the THOR RX 1, RX 2 and RX 3 devices?	Fiber to SDI receivers for POV type cameras
27	6913 OF Attachment C1.0 IP Router Specs	Pg 1	Reference to 4K	<p>There is a significant impact on system design and cost related to potential 4K operations. Please state the new truck's operational requirements for 4K capability. Examples:</p> <ol style="list-style-type: none"> 1. 3G or 12G cable SDI coax wiring only. (\$) 2. IP core designed and deployed for HD/3G connections and bandwidth. 4K operation would require change out of core switches, blades & optics.(\$\$) 3. IP core designed for future 4K operation, but deployed as HD/3G. 4K operation would require new blades in existing switches and new optics. (\$\$\$) 4. IP core design and deployed as 4K capable 	<p>Option 2 IP core designed and deployed for HD/3G connections and bandwidth. 4K operation would require change out of core switches, blades & optics.</p> <p>Please keep in mind this can change with the design of the truck. Currently the plans are to purchase 6 native IP cameras. BNC cables from patch I/O panel should be 12G capable.</p>

				(switches and blades) but operated at HD/3G only. 4K operation would require change of optics. (\$\$\$\$)	
28	6913 OF Attachment C1.0 IP Router Specs	Pgs 1-3	General	Your solicitation calls for a new mobile unit ready for "immediate use" upon delivery, yet very little is specified about the many, peripheral components that are required for a completely operational new truck. Respondents anticipate working with the NPM engineering team to design and develop the new truck systems as part of this project's scope. We anticipate that process will identify additional equipment that will be required to complete the truck. How does NPM anticipate this process will be handled during the design phase?	To address this, NPM is prepared for a collaborative design phase, where flexibility will be key. As additional equipment needs are identified, NPM anticipates handling these through a structured change order process. This process will ensure that necessary modifications or additions are formally recognized and incorporated into the project's budget and timeline. Respondents should expect open communication during the design phase to refine the truck's capabilities and ensure it meets operational needs upon delivery.

29	6913 OF Production Trailer (Revised 2)	1 (PDF 10)	I, A General Information	Will NPM consider an additional bidder's call where the truck floor plan and specific production requirements will be discussed to determine the proper types and quantities of equipment that are needed in the new truck?	Yes
30	6913 OF Production Trailer (Revised 2)	X	X-	For the equipment labeled as "stay in truck," is it necessary to purchase and install matching equipment in the new truck?	No
31	X	16	X. Delivery ARO	Since the RFQ bid opening has been pushed back and also because trailer manufacturers are in the midst of a heavy demand period, could the delivery date also be pushed back, based upon an order by October 31st to the timeframe of no later than February 6th, 2026?	Given the delay in the RFQ bid opening and the heavy demand on trailer manufacturers, Nebraska Public Media is open to extending the delivery date, provided an order is placed by October 31st. A revised delivery timeframe of no later than August 1, 2026, would be considered to accommodate production timelines and ensure the project remains on track. Additionally, NPM is not opposed to considering European trailer manufacturers if it helps expedite the timeline. This flexibility allows for exploring

					alternative suppliers while maintaining the quality and specifications required for the mobile unit.
32	X	30	C. Rack-Ready Broadcast Production Trailer	Would an industry proven reliable electric expanding side mechanism with a manual backup be acceptable to open and close the expandos?	No
33	X	32	C. Rack-Ready Broadcast Production Trailer	Can the rack rail be steel for better rigidity and thread strength?	Yes
34	23	X	P. Nebraska Technology Access Standards	As discussed in the question-and-answer meeting, will the Technology Access Standards be waved in writing for this project?	The state is not willing to give a waiver at this time but all terms and conditions our negotiable at time of contract award.
35	X	X	General Questions:	Can the I/O's be located in the belly bays or are they slated for storage?	Belly bays are designated for storage.
36	X	X	General Questions:	Is this trailer supported by a B-Unit for storage of cameras, lenses, tripods, cables etc.	No
37	X	X	IP Router Technical Requirements questions:	MV interface to IP Router Monitoring by exception alarming; can you provide more details about what is required for exception monitoring?	TBD – all MV questions depend on the router manufacturer and design/function.
38	X	X	IP Router	MV interface to IP Router	TBD

			Technical Requirements questions:	Which type or levels of alarms will be required?	
39	X	X	IP Router Technical Requirements questions:	MV interface to IP Router Will the penalty box be displayed on a separate display to show the alarms?	TBD
40	X	X	IP Router Technical Requirements questions:	MV interface to IP Router Edge Devices; How many gateways will need to have the functionalities of frame synchronization, up/down/cross converters, audio embedding, mono audio shuffling and color correction for HDR and SDR workflows? Would it be only 32 as stated in the "Deliverables"?	TBD
41	X	X	IP Router Technical Requirements questions:	MV interface to IP Router Edge Devices; Will this processing be done in SDI/IP or IP/IP conversion or a combination?	Combination
42	General				
42.1		It is mentioned that the proposed system should support 720p/1080i/3G/12G/4K. For UHD, do you expect the system to support any other resolution besides 3,840 x 2,160p?			No
42.2		What frame rates should the system support?			29.97, 59.94HZ

			Up to four cameras that will have high speed frame rates 179.82, 359.64
42.3		What will be the maximum number of audio channels per SDI signal?	8 channels per SDI signal
42.4		Will there be any requirement for Ancillary / ST2110-40 signals? If so, what metadata will it include? For example: VITC, 608/708 closed captions, SCTE triggers, etc.	Yes – VITC, 608/708 closed captions
42.5		According to the network diagram, since your edge devices are connected to the Leaf switch and not directly to the Spine, will there be any bandwidth limitations on the uplink port? If the uplink connection has a lower capacity than required for the volume of traffic being sent, it may create a bottleneck.	We are not sure how to answer this question. We are not IP experts and need help with the design of the router. We do not want any “bottlenecks”. The network design diagram is just showing the basic structure and topology. Actual system proposed by bidder will vary.
42.6		Will you be using SDN for the Media network?	Yes
42.6		Beside ST2110 (Uncompressed), do you have any requirement of Compressed IP Streams (like NDI, SRT, JPEG-XS) for remote production?	There is a chance we would need compressed IP streams such as SRT and JPEG-XS for transmission. This would be a very limited number of signals, less than 5.
43	IP Gateway		
43.1		From the drawing, we understand IPG will have 320 SDI Sources and 128 SDI Destinations. Typically, the UHD count is 1/4 of 3G. What is the signal format is consider in this count?	The block diagram shows basic structure, topology, and signal flow of what the IP routing system may look like. This is a proposed drawing, actual system proposed by bidder may vary slightly. Being

			we don't plan on doing 4k or UHD any time soon, I don't believe UHD is being considered with this number count. We estimate up to 192 SDI sources and at least 128 SDI destinations.
43.2		How many Frame Sync licenses are required? Frame Sync is licensable and only required for SDI sources that are not synced with the same SPG as the IP Gateway.	We would like 32 Frame Syncs inputs that are UDC and CC, these should be part of the IP Gateways
43.3		Out of 320 SDI sources, how many are expected to be monitored in the Multi-Viewer? This will determine the proxy count for the Multi-Viewer.	We would like any source available on the Multi-Viewer.
43.4		Do you need quad-link 3G SDI to single-link ST2110 or single-link ST2110 to quad 3G SDI? If so, how many are required?	At this time no.
43.5		When considering mono audio shuffling, are you considering shuffling the audio channels with an SDI signal or a multicast stream? Or are you considering mixing channels from multiple signals to create a new audio signal?	Systems shall support AMWA IS-08 Mono audio channel shuffle and manipulation. Shuffling mono audio channels within an SDI stream and mixing channels from multiple SDI streams to create a new signal are required.
44	Video Processing		
44.1		How many Color Correction licenses are required?	Minimum of 16 FS need color correction
44.2		32 Up/Down/Cross licenses will be added. What will be the maximum input and maximum output resolution? This will determine the amount of processing needed. Typically, UHD requires more processing than 3G/HD.	3,840 x 2,160p
45	Audio Gateway		

45.1		How many analog signals need to be converted to ST2110-30/ASE67?	At least 20 analog bi-directional gateways required. Mainly used as ST2110-30 to analog speakers and monitors.
45.2		How many AES3 signals need to be converted to ST2110-30/ASE67?	At least 8 AES bi-directional gateways required.
45.3		What connector type is preferred for AES3: HD-BNC or D-Sub?	AES signals are 110-Ohm, DB25 with Tascam pin-out preferred.
45.4		How many MADI ports and audio channels per port are required to be converted to ST2110-30/ASE67?	64ch per MADI stream. At least 10 MADI bi-directional gateways required. These MADI streams will be the pathway between Studer console and IP router. 5 MADI as main, the other 5 as redundant.
45.5		What connector type is preferred for MADI: HD-BNC, Multi-Mode Fiber or Single-Mode Fiber?	Two (2) multi-mode duplex fiber, sixteen (16) HD BNC.
46	Multi-Viewer		
46.1		How many sources generated by native ST2110 sources need to be monitored in the Multi-Viewer? This will determine the proxy count for the Multi-Viewer.	Up to 72 sources
46.2		In Deliverables>Multiviewers section the table shows Total PiPs in each area. For example Audio Area has 3 Monitors with Total of 18 PiPs. Is this mean, each monitors will have 6 PiPs max?	We have based that MVWR deliverables section on a slightly above average show that we anticipate producing.
46.3		What will be the output format of the Multiviewer?	1080p minimum
47	Control System		
47.1		Do you have a list of devices that the Control System will communicate with? We normally require a table with the following information:	See attachments

This Addendum will become part of the ITB and should be acknowledged with the ITB.