

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO. 000002		3. EFFECTIVE DATE 08/17/2009		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable) 1 5	
6. ISSUED BY NASA/Stennis Space Center Acquisition Management Office Building 1100 Room 251H Stennis Space Center MS 39529-6000		CODE SSC		7. ADMINISTERED BY (If other than Item 6) NASA/Stennis Space Center Acquisition Management Office Building 1100 Room 251H Stennis Space Center MS 39529-6000		CODE SSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO. NNS09300566R			
				x 9B. DATED (SEE ITEM 11) 08/04/2009			
				10A. MODIFICATION OF CONTRACT/ORDER NO.			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE					

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

- The purpose of this amendment is to answer questions submitted about RFP NNS09300566R.
- The hour and date specified for receipt of offers is not extended.
- No other changes are made to the RFP by this amendment.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Gerald Norris	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 8-17-09

1. Does the system have to be on a GSA schedule?

No.

2. Is there a specified manufacturer?

No.

3. What size hard drive and how many channels?

Stennis Space Center (SSC) will not specify the size of hard drives due to the possibility of various architectures proposed. Proposals should specify appropriate storage meeting the duration and quality requirements in the Statement of Work.

4. Does the system need to interface with the Lenel Access Control System already in place?

No.

5. Will we be allowed an onsite visit to see installation area?

No. The installation area will be a control center with raised flooring containing modular computer workstation furniture and equipment racks. The video feeds will come from cameras mounted on the engine test stand. Video feeds will be routed through a switcher in the control room for display on monitors and for recording to the digital video recording system.

6. Will the typical recorded event ever exceed 12 hours?

This digital video recording system will support rocket engine testing for the Constellation program. Typical engine tests have a duration of less than 15 minutes. However, the system will need to support recording of other less frequent activities associated with the engine test that will have an extended duration. This extended duration has been estimated at 12, 24, and 48 hours. This resulted in the requirement for minimum 24 hour storage, but with the capability to perform a near-continuous recording capability (see the Statement of Work). Because of the various architectures available with digital video recording systems, SSC requests that the proposals include the methodology of meeting the near-continuous recording requirement.

7. Where will the physical location of this equipment be?

The equipment for the digital video recording system will be installed on location at the NASA Stennis Space Center in Mississippi in equipment racks in a test control center.

8. How far will the NLE be from the servers?

The non-linear editor (NLE) and the digital video recording system will be in the same facility (test control center) within 100 feet of each other.

9. Will there only be one NLE?

Yes. A single non-linear editor (NLE) will be used for editing all of the recorded channels. Due to the fact that the proposed system may utilize a specific native format, the proposal should recommend a compatible NLE. NASA will supply the recommended NLE.

10. Will we be responsible for the Fibre connections between the NLE and SAN?

NASA will provide the NLE, the SAN and the Fibre connections between them.

11. Fibre Channel SAN-Specifics? 2GB, 4GB, 8Gb? Can we get more specifics on the SAN? It's says that the video will be archived to a SAN system. Need more info on this.

Standard components of Stennis Space Center's Storage Area Network (SAN) include Qlogic FC HBA's, Brocade switches, SUN Storagetek disk subsystems, and SUN automated tape library systems. The core switch for the SAN is a Brocade 5300 that is capable of operating at 1, 2, 4, or 8 Gbit/sec. Our preference is to have connectivity at 8 Gbit/sec. Qlogic FC HBA's currently in use in SAN attached devices are model #QLA2310F, QLA2340, QLA2342, QLA2344, QLA2462, and QLA2562. QLogic QLA2562.

12. It mentions the digital recording system and/or NLE will interface to an existing SAN. Which is the clients preference?

For any recording less than 24 hours, all video must be recorded to storage on the digital video recording system. This eliminates any risk of an engine test not being recorded due to an issue with the SAN or fibre channel connection. The recorded video is only transferred to the SAN for permanent archive after all of the video has been edited by the NLE. SSC will provide the NLE with fibre channel capability

Stennis Space Center has surveyed digital recording systems and has determined that several types of architectures are available. Some systems utilize fibre channel while others may utilize Gig-E and still others may support both. SSC has decided not to eliminate potential proposals on this point. The proposal should describe the proposed workflow for transfer of the edited video either directly from the digital recording system or from the NLE. A system supporting both GIG-E and fibre channel capability would provide additional flexibility.

13. Can we have clarification on the hotswap/offload of previous 24-hour recordings? Are they being moved via the NLE to the SAN as they are recorded? Can they be offloaded to a LTO or DLT off the servers or must they move through the NLE?

There will be recording of other less frequent activities associated with the engine test that will have an extended duration beyond 24 hours. Due to storage costs, we will only have online storage for 24 hours. Vendor should propose a methodology for exceeding the 24 hours recording duration.

Video is not autonomously moved from the NLE to the SAN as it is being recorded. The video is required to be recorded locally on the digital video recording system.
Video data needs to be recorded locally.

The vendor should propose a method for continuous recording. LTO or DLT options may be considered. Use of the SAN may be a possible option for temporary storage of recorded video when the recording exceeds the 24 hour storage requirement. The proposal should provide details on how this would be done.

14. How much space is allocated for the equipment? How many racks, consoles etc will be provided? Is that to be included in the proposal?

SSC will provide the rack units for installation of the equipment either by direct rack mount or on rack mounted shelving. Equipment is to be limited to 3 racks at 44-RU 30" deep. Required rack space for the digital video recording system should be specified.

15. Will other equipment (cameras, monitoring, NLE etc) be in place when the installation of the video server begins?

Yes. The installation must be coordinated with activities at the test control center. If a timely date is not identified, then installation by the vendor will be performed in an alternate staging area. The equipment will be relocated at a later date by SSC personnel.

16. Analog audio- Mic or line level? Balanced or Unbalanced?

Line level unbalanced.

17. Start and stop via desktop controller or PC GUI?

Either or both is acceptable as long as the controller can control all record channels simultaneously and be expandable to accommodate additional channels.

18. Project files- Does this mean that all twenty four recordings will be in one project folder?

This is preferred so the video editor does not have to mount a separate drive or folder for each video file.

19. What additional/optional input/playback formats are you interested in?

HD (720p) capability is an optional format, but not required at this time.

20. Expandable to how many channels?

Not determined at this time, although do not foresee going beyond 96 channels – vendor should identify the maximum capability. Intent is to obtain a flexible system.

21. You state you want a standard video format? Is DV25 ok?

The SOW states “Multiple recording quality options should be available, and should include recording at video quality comparable to DVCPRO and DVCPRO50.” DV25 is comparable to DVCPRO, but not DVCPRO50 which is a higher quality/bitrate.

22. What other quality options would be required in the SDI realm?

From SOW - “Multiple recording quality options should be available, and should include recording at video quality comparable to DVCPRO and DVCPRO50.” “Video recording system shall be upgradeable to support additional input/playback formats with optional modules, software, etc. This includes support for recording and playback of high definition digital video at 720p (60 frames/sec) through HD-SDI.”

23. What is being recorded? The RFP speaks about live events but what are the live events.

Video feeds will be from cameras monitoring rocket engine tests conducted at the facility.

24. The third bullet point under “System Requirements” of the solicitation says “Immediate video playback with up to 6 channels simultaneously from any of the 24 recordings or single channel playback from any of the 24 recordings”. Could you please expand on this requirement as to what the expectations are? For instance, are you asking that a file being recorded be available for playback for simple verification that the encoding process is taking place or is there another reason for this requirement? Are there other considerations for this requirement? Please define the single channel and 6 channel playback needs – are six individual playback channels needed?

After the engine test, there may be an immediate need to replay recorded video from any of the channels for engineering analysis. Any of the channels should be available for immediate playback, although we are only requiring 6 simultaneously.

25. Is DVCPRO 50 'comparable' an absolute requirement (I-frame only)? If not, is MPEG2-15Mb/s (variable) capturing @ 480i 30fps acceptable?

Per Statement of Work "...video quality comparable to DVCPRO and DVCPRO50". SSC will not evaluate proposed formats until proposals are reviewed.

26. Is HD upscaling an option? MPEG2 ok?

HD is a potential upgrade in the future. SSC has not considered upscaling SD to HD due to increased storage requirements with no gain in quality. Regarding MPEG2 -see Question 25.

27. Being that the Ingest servers will reside on a centralized network w/NLE's, can we stream the recorded files directly to an NLE file share location/s? If so, alternatively, do we have the option to stream the recorded files to NASA's SAN via fibre for NLE pickup?

Requirements do not state that Ingest servers will be used, although that may be a proposed solution by a vendor.

Video must be recorded to storage on the digital video recording system. This eliminates any risk of an engine test not being recorded due to an issue with the SAN or fibre channel connection,

The SAN is utilized for archiving of the video after editing on the NLE. It may also be an option for meeting the near-continuous recording capability (over 24 hour recording).

For current SAN availability refer to questions #12 and #13. The availability of the SAN for future HD upgrade is undetermined at this time.

28. Are recorded sessions required to be synchronized across recorders?

There should be an option to start recorders individually, but also an options to start 2 or more simultaneously

29. What is the desired application/workflow of playback?

To provide immediate playback for engineering analysis, please see question # 24

30. Is playback required during a recording session?

No, but it is required immediately following the recording session. See question # 24

31. Will the recording equipment be centrally located?

Yes, See questions 7 and 8.

32. Is rack mounting a requirement and if so, what is the maximum rack space allowed (total RU & depth)?

See question 14.