

Webcast and streaming media support Description of Work

10.89 General

The vendor shall support webcasting from NASA Headquarters using TCP/IP protocol. Types of events to be supported by the vendor are identified in Table 1 below. The vendor shall provide a plan that meets NASA's policy of using webcasts to reach millions of Internet users. The vendor shall also provide archive copies of webcast material and appropriate URL links to Headquarters web customers. The vendor shall also support pre-production requirements where those requirements are not under the purview of NASA Television. The vendor shall also facilitate any additional web-based associative elements, which support the webcast, such as an interactive method to post questions to the hosts of the webcast. The vendor shall ensure that webcasting technology includes the capability for split-screen with embedded live or on-demand video and synchronized chart presentation. The vendor shall conform to the minimum 80 KbPS standards format for internal NASA events. The vendor shall also provide a means of digitizing material to prepare for webcast or multimedia download and shall also provide the means for an archive of a webcast to be presented and distributed on CD-ROM. The vendor shall develop, test and implement a set of procedures which allow NASA Headquarters to purchase commodity-class streaming for events which require very large numbers of online viewers (greater than 1,000). The vendor shall also assist NASA Headquarters with technical issues associated with developing a NASA-in-house capability to stream for those events, which do not require greater than 1,000 online viewers. In this regard, the vendor shall provide a procedure to use existing NASA facilities at other NASA centers and provide a technical recommendation for how to best use these existing facilities.

Table 1 – Categorized Webcasting Events

CATEGORY	DESCRIPTION	EXAMPLE
High	Production, Content, Digitization and Interactivity	NIAT Broadcast
Medium	Digitization and Creation of Content and Interactivity	University Conferences
Low	Digitization of Existing Content	Press Releases, Shuttle Launches and Landings from NASA TV

10.89.1 Requirements

The vendor shall provide the capability to support the following activities:

1. Digitize existing analog or digital material for web download or webcast;
2. Work with NASA TV to enable the capability of webcasting and archiving any material shown on NASA TV which would also be webcast;

3. Develop a plan for simultaneous webcasts from NASA Headquarters of different programs;
4. Webcast technology shall support both uni-cast and multi-cast routing;
5. Support additional requirements associated with the webcast such as CD-ROM and/or websites development or conversion as well as the sharing of the streaming product among federal agencies;
6. The vendor shall explore existing commodity providers and recommend to NASA Headquarters a solution which includes the following considerations: overall price (including any infrastructure upgrades required), end-user presentation quality and availability, time-to-deliver issues (how quickly can a commodity webcast be initiated and with what level support from the vendor and NASA sides), technical growth capabilities of the commodity provider, impact on existing desktop workstations both within the NASA community and external to the NASA community;
7. The vendor shall examine the existing webcasting capability at other NASA facilities and provide a recommendation that will enable the existing NASA webcast infrastructure to be used by all Centers where the overall viewer audience is less than 1,000.
8. The vendor shall support a total of eighteen (18) NASA events; two (2) high, five (5) medium and twenty (20) low.
9. The vendor shall work with NASA HQ Webmaster to design and develop a software utility which allows the event support staff to automatically monitor, format, record and broadcast incoming email messages and questions to the live event stream. This application will facilitate the post-event archive by recording rudimentary "time codes" when questions are broadcasted within the stream and record the "transcript" for later use in the post-production process.
10. The contractor shall provide the means to host web conference events and associated web content including the registration system and accommodate mobile multimedia events.
11. The vendor shall evaluate, design, acquire, and deploy servers to meet the requirements of the Enterprise and perform all related IT operations and maintenance functions, including account administration. The vendor shall provide end-to-end service management and customer support to facilitate end-user IT needs.

10.89.2 Deliverables

1. Support for NASA standard webcasting capabilities hardware and software;
2. Support two high, five medium and twenty low events;
3. Provide in-house support for multicast streams up to -500 and out-sourcing support for streams in excess of 1000;
4. Recommendation on use of outsourcing vendor for webcasting streams in excess of 1000;
5. Webcast technology which supports both uni-cast, multi-cast, and relay casting; The government anticipates the following hardware will be necessary to meet this requirement :
 - 1 laptop & software (new reqmt #10 and 11 and associated deliverable #5)
 - 1 web server & software (new reqmt #10 and 11 and associated deliverable #5)

- 1 streaming server & software (new reqmt #10 and 11 and associated deliverable #5)
- 1 encoder & software (deliverable #5)

(Note for proposal purposes: The vendor may propose alternatives that will be evaluated. Costs for proposed property acquisitions shall be discreetly identified in the cost proposal. Property acquired under this task is subject to applicable property clauses and will be incorporated as line items in this task order.)

- 6. Recommendation on how to best use and evolve the existing NASA Center-specific webcasting infrastructure so that it can be used essentially by any center from any center and yet still use all the existing (or evolving) NASA-provided infrastructure;
- 7. Implementation of recommendations cited in 6 above.
- 8. Software utility to automate the posting and broadcasting of incoming email questions for event participants.

10.89.3 Metrics

The performance standards specified in paragraphs 10.3.3 and 10.3.4 are applicable to this task.