

Representative Task Order Number Three: *Information Technology Support Requirements Assessment for Peer Review*

Background:

NASA is concerned that its NSPIRES system does not facilitate efficient proposal review and administration, for both internal and external users. Its usability limitations may threaten the reviewer community's willingness to continue participating in NASA's peer review events and activities. As well, improvements are needed to facilitate the work of NASA program managers. The owners are generally concerned that the system does not meet contemporary usability standards for its functions; including solicitation announcement, proposal submission, peer review by mail and panel reviewers, and general proposal administration.

NASA uses the NSPIRES system for research, technology development, and other types of proposals. Peer review is critical component of the process. Via this system, reviewers retrieve proposals, certifications, budgets, and various supporting documents, and submit reviews. Review panels use the system to access reviews and develop panel evaluations that include summary documents and scores NASA also uses NSPIRES for a variety of proposal administration requirements, including document handling, budget adjustments, decision communications, and generation of documents for award processing. These administrative activities involve a variety of users, including NASA program managers and other staff, contractors, and proposers. All of the information contained in NSPIRES is considered sensitive and confidential.

Numerous users—from reviewers to NASA staff--have observed that the NSPIRES user interface is confusing and that the system's performance is slow. Reviewers report that participation in NASA peer review is tedious and time-consuming because of NSPIRES, particularly when one is assigned a large number of proposals to review. Among other complaints are that the web pages and the overall structure are not designed to facilitate work flow; do not refresh promptly in response actions such as sort commands; and proposal and certification document downloads take too long, as do uploads of completed reviews.

NSPIRES contains few collaboration tools. These tools are needed to facilitate proposal review during panels , including the participation of panelists by teleconference or other virtual methods. Tools are also lacking to document voted panel scores, collaboratively develop panel summaries, and track panel progress. At present, these activities are conducted external to NSPIRES, and the NSPIRES system is used merely upload documents after the panel.

Finally, NSPIRES is a critical public interface for NASA where proposers see solicitation information and selected proposals are listed. This interface is outdated, and difficult to search both internally and through popular web-search engines.

General Description of the Requirement:

In this task order the contractor shall evaluate current information technology-based support requirements for the peer review life cycle as conducted at NASA¹. The contractor shall assemble and validate benchmark functional user requirements. The contractor shall examine the existing NSPIRES system's technical architecture, including its user interfaces², system & application software, database architecture, hardware infrastructure, system interfaces, network communications, hosting and continuity management, and information technology-related security components in order to evaluate, draw conclusions about, and report on the following: the extent to which NSPIRES delivers a technically efficient and effective solution to benchmarked functional user requirements; the technical architecture alternatives that exist for a next-generation NSPIRES solution; and the tradeoffs between cost and technical architecture that exist in pursuit of an optimal information technology-based user experience.

Key emphasis areas for functional improvements, relative to the baseline NSPIRES system, shall include the following: 1) Peer reviewer interface; 2) Panel collaboration and summary interface; 3) Panel work tracking; 4) Panel scoring, 5) Proposal administrative functions for NASA Program Managers and other staff, and 6) NSPIRES external presence for solicitation and award search and presentation.

The contractor shall propose a solution that optimizes functional performance and cost.

Alternative solutions considered may include: modification of the NSPIRES system, replacement, e.g. rebuild or arrange for cross-servicing with another production system operator, or supplementation of the existing NSPIRES system using contemporary industry-standard tools such as business warehouses or decision support applications.

¹ Refer to the SOW for details. The level one components of the life cycle are defined, for purposes of this RTO, as solicitation announcement, proposal submission, proposal review & evaluation, and selection. Lower-level support requirements include such things as proposer feedback and communications, document storage and retention, document security, and reporting. See the SOW for details.

² And including accessibility requirements per Section 508. See SOW for additional details.

However, it is the Offeror’s responsibility to propose a solution that is innovative, effective and optimizes functional performance and cost.

Recurring Nature of the Task:

The recommended solution or derivative solutions adopted because of this task shall be revalidated annually during the life of the contract.

Deliverables:

<u>Number</u>	<u>Product</u>	<u>Performance Standard</u>
1.	Project management plan, including schedule and cost.	Provide project plan to include the work products and schedule to accomplish the project
2.	NSPIRES stakeholder analysis.	Compile and present results of two dozen NASA stakeholders (stakeholder pool developed in collaboration with NASA task monitor, but will include both NASA and external users.)
3.	Results of market survey and comparative analysis.	Include inventory of market-driven alternatives considered; present and discuss in relation to NSPIRES functionality and user acceptance.
4.	NSPIRES architecture assessment’s findings and recommendations.	Presented in Strength, Weaknesses, Opportunities, and Threats (SWOT) format.
5.	Recommended replacement system concept document.	Include recommended development schedule, cost, risks. Concept document to include detailed transition planning milestones.
6.	Project status reports bi-weekly to the NASA task monitor.	Deliver bi-weekly.
7.	An executive summary and associated close-out activities.	Formal presentation to close-out.

Period of Performance: January 5, 2015 –March 31, 2015

Final Report due no later than 90 days from issuance of task.