

TASK STATEMENT OF REQUIREMENTS (SOR)

Task Number: ARC015.10.00

Date: June 2, 2016

Task Title: NAS Procurement Support

Requester: 

Period of Performance: August 1, 2016 through July 31, 2017

I Description of Work

For over 25 years, the name "NAS" has been associated with leadership and innovation throughout the high-end computing (HEC) community. We play a significant role in shaping HEC standards and paradigms, and have a leading part in the development of large-scale, single-system image computers.

As part of the Exploration Technology Directorate at Ames Research Center, our division supplies some of the world's most powerful supercomputing resources to NASA and U.S. scientists and engineers.

We provide an integrated high-end computing environment to accelerate NASA missions and make revolutionary advances in science. Pleiades grew to 6.66 petaFLOP over the last year enhancing NAS's leadership status in High End computing for NASA and maintaining the center as one of the leading centers in the world.

In addition, our integrated environment includes smaller testbed and next-generation systems, high-fidelity modelling and simulation, high-bandwidth local and wide area networking, parallel performance analysis and optimization, distributed information infrastructure, and advanced data analysis and visualization.

Our mission:

To lead the country in the development, and delivery of integrated, revolutionary, high-end computing services and technologies to facilitate NASA mission success.

Some of our high-level goals include:

- Use high-end computing technologies to provide true emergency-response capabilities for NASA and demonstrate this capability by providing crucial analysis in one day versus the current three to six months.
- Team with NASA's Advanced Space Transportation Program and outside partners to create breakthrough capabilities in space vehicle design.
- Support simulation and modelling for design and development of the Crew Launch Vehicle and Crew Exploration Vehicle.
- In the long term, provide breakthrough numerical simulations to advance foundational technologies for NASA's Vision for Space Exploration.
- Provide new capabilities for NASA's Earth science work in climate and weather modelling by dramatically increasing the resolution and fidelity of the nation's important climate and weather modelling codes.

- Work with NASA's research, and analysis teams to provide revolutionary capabilities in modeling the Earth and the Solar System, galactic and planetary evolution, supernovas, and more.

In support of the division's varied activities, the division requires the purchase of a wide variety of products and services. This task is to procure those essential products in a timely and cost effective manner. There are two major subtasks under this task:

- High End Computing Capability Support Subtask
- General NAS Support Subtask

Subtask A: High End Computing Capability Subtask

Government Point of Contact: [REDACTED]

This subtask area provides procurement targets for tasks ARC004 and ARC013. This subtask is further divided into 11 major areas. This SOR specifies the current targets for each major area and lists the anticipated charges under each area. This is not a commitment to purchase but does provide the current best estimates for planning purposes.

Area 1: Project Office [REDACTED]

Item	Budget
Flat ODC Fee	[REDACTED]
Total	[REDACTED]

Area 2: Supercomputing System [REDACTED]

Item	Budget
PBSpro	[REDACTED]
Software Maintenance	[REDACTED]
TecPlot	[REDACTED]
Totalview	[REDACTED]
SGI onsite software support(2)	[REDACTED]
SGI Onsite Hardware Support	[REDACTED]
SGI Maintenance	[REDACTED]
Hardware Spares	[REDACTED]
Tape Media	[REDACTED]
Lustre Support	[REDACTED]
OpenSFS/OFED/IBTA Membership	[REDACTED]
PBS/SM Server	[REDACTED]
Cold Storage / Disk Cache	[REDACTED]
Replace license2/deckard/service66	[REDACTED]
pNFS storage	[REDACTED]
Total	[REDACTED]

Area 3: Application Performance & Productivity [REDACTED]

Item	Budget
Consultant	[REDACTED]
Hardware	[REDACTED]
S/W tools for inhouse use	[REDACTED]
Total	[REDACTED]

Area 4: Networkin [REDACTED]

Item	Budget
Maintenance	[REDACTED]
Supplies	[REDACTED]
Licenses	[REDACTED]
Hardware Refresh	[REDACTED]
Next GenNetworking	[REDACTED]
Interns	[REDACTED]
POD Upgrade (Code I SR)	[REDACTED]
Total	[REDACTED]

Area 5: Visualization and Data Analysis [REDACTED]

Item	Budget
Workstation Display Upgrade	[REDACTED]
Mini hyperwall nodes	[REDACTED]
Misc	[REDACTED]
Total	[REDACTED]

Area 6: User Services [REDACTED]

Item	Budget
RSA SecurID Tokens	[REDACTED]
Token Maintenance	[REDACTED]
FMCS Replacement	[REDACTED]
Apple iPad	[REDACTED]
Replacement Monitors	[REDACTED]
Other Monitoring	[REDACTED]
Cameras at doors (Phase 1)	[REDACTED]
Software for User Survey	[REDACTED]
Total	[REDACTED]

Area 7: Technical Marketing [REDACTED]

Item	Budget
Materials	[REDACTED]
Equipment	[REDACTED]
Software/Renewals	[REDACTED]
Supercomputing	[REDACTED]
Misc	[REDACTED]
Total	[REDACTED]

Area 8: Engineering Server Support [REDACTED]

Item	Budget
Interns/Students	[REDACTED]
Software	[REDACTED]
Maintenance	[REDACTED]
Hardware	[REDACTED]
Supplies	[REDACTED]
Misc	[REDACTED]
ACES	[REDACTED]
Total	[REDACTED]

Area 9: Security [REDACTED]

Item	Budget
Security Hardware and Software	[REDACTED]
Security Maintenance	[REDACTED]
Misc	[REDACTED]
Total	[REDACTED]

Area 10: Tools [REDACTED]

Item	Budget
Hardware	[REDACTED]
Maintenance	[REDACTED]
Software	[REDACTED]
Total	[REDACTED]

Area 11: Facilities [REDACTED]

Item	Budget
Hardware	[REDACTED]
Maintenance	[REDACTED]
Software	[REDACTED]
Total	[REDACTED]

Subtask B: General NAS Support

Government Point of Contact: [REDACTED]

This subtask is for equipment or software for TN people funded from non-HECC sources.

Item	Budget
Hardware	[REDACTED]
Software	[REDACTED]
Total	[REDACTED]

II Documentation and Reporting Requirements

The contractor shall:

- Request approval for any expenditure exceeding \$1,000.
- Request approval for all IT expenditures.
- Provide tracking from purchase to appropriate budget line item.
- Provide 533 data to Area Level monthly

III Travel Requirements

No travel is required under this task.

IV Government Property

The Government will furnish equipment (workstations, offices) as required for the successful completion of the task's requirements. All requests for new equipment will go through the appropriate POC.

V Ames Management System Requirements

Work on this task shall comply with NASA Management System Policy - NPD1280.1, NASA Policies & Procedures - NODIS, Ames Management System Directives (APR1280.1), AMS Core Processes: APR7100.1, APR8060.1, APR8800.7; AMS Elements APR1220.1, APR1410.1, APR1440.1, APR8700.3, APR8700.2, and CDMS (see <http://ams.arc.nasa.gov>).

In addition, this work should comply with Ames Management Objectives (MO), for Code TN, specifically:

a. Center Level MO 1

Promote and maintain an organizational culture in which safety is paramount.

b. Center Level MO 2

Deliver key technical contributions to Agency-critical programs and projects, meeting all cost and schedule commitments.

c. Center Level MO 3

Produce outstanding research.

d. Center Level MO 4

Continually improve Ames Research Center processes.

e. Center Level MO 5

Develop and maintain a highly skilled workforce.

f. Continuous Improvement

Use the Center's Continuous Improvement Actions system.

VI Security Requirements

Work on this task shall comply with the NAS Security Model and applicable U.S. Federal Government and NASA Policies and Regulations. In particular, work on this task shall comply with NPG 2810.1A and OMB Circular A-130.

VII IT Purchasing Requirements

Acquisition of IT products and services required for this task shall comply with applicable NASA IT procurement policies including the ARC CIO's IT purchase approval process (when required), Internet Protocol version 6 (IPv6) compliance policy and other requirements stipulated in NASA Form.NF 1707.

VIII Other Requirements

Evaluation of Contractor's Response to SOR - Evaluation criteria of task proposal will be based on sound innovative technical approach, completeness of analysis, review and designs, proposed expertise and skill mix, and cost/price.

Award Fee Evaluation - Performance evaluation will be measured based on cost containment, quality of technical and status reports, adherence to metrics, and accomplishment of milestones/deliverables.

Task requires contractor access to Government database(s)? YES

NEMS—Asset Management System

IX Section 508 Requirements

Certain subsystem elements are expected to result in spreadsheets or databases that contain a substantial amount of information. This information and its presentation mechanism are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility. Complete information on EIT accessibility and Section 508, is available via Internet at <http://www.section508.gov>.

Specifically, the Contractor must propose EIT products and/or services that meet the applicable accessibility standards identified below:

- 36 CFR 1194.41 - Information, documentation and support

X Quality Assurance Standards

The contractor shall be in compliance with all applicable NASA and Center-level Quality Assurance Standards and safety practices and guidelines.

XI Appendices

None.