

## **Technical Support for the Earth Science Enterprise Chief Information Officer Description of Work**

### **10.8 Technical Support For Earth Science Enterprise Chief Information Officer**

#### **10.8.1 General**

The Contractor shall evaluate, demonstrate, develop, deploy and maintain solutions for the Earth Science Enterprise (ESE) and its Agency, national and international partners. The Contractor shall also provide demonstrations and training on the deployment and operation of advanced Internet applications to the ESE Chief Information Officer, program management executives, collaborators, national and international partners, support service providers, and/or other NASA offices as requested.

#### **10.8.2 Information Services And Products**

The Contractor shall:

- A. Evaluate emerging technologies to recommend enhancements to the Earth Science Enterprise business applications. Particular emphasis shall be placed on multi-media solutions and other collaborative tools, knowledge management and communication. Attendance at new technology demonstrations and trade shows shall be required to identify and conduct research into emerging technologies.
- B. Develop, maintain, and document the ESE IT architecture as it relates to the Agency IT architecture and to any locations hosting ESE servers/applications. Consult with ESE, the NASA Chief Information Officer, and designated technical consultant(s) to develop recommendations for improvements to the architecture, including cost and impact as primary elements of proposed solutions. Travel to Centers and national or international partner locations as required to support these activities.
- C. Develop and exploit the latest web and information services and products for ESE; procure necessary hardware and software to support this effort.
- D. Provide technical support to ESE in adding to, changing existing, or publishing Web-related material and in editing and formatting this material for various media consistent with present and future Enterprise, Agency, and Federal policy (including section 508 of the Rehabilitation Act of 1972, et. al.)
- E. Perform continuing review and consultation on Agency-wide IT security policies, procedures, and architecture standards. Particular emphasis will be placed on supporting collaborative security assessments, continuity of operations (COOP), disaster recovery, and IT security best practices.
- F. Provide development, sustaining engineering, and maintenance for the following:
  - ESE Congressional Database
  - Earth Science Enterprise Web Site ("Destination:Earth")
  - Earth Science Enterprise "Kids Only!" Web Site
  - ESE Extranet, (ESX) including
    - ESE Program Reviews
    - Collaborative Environments
  - ESE CEOS Program and related integrated outreach mechanismsSolutions shall be geographically independent for deployment.

- G. Integrate the data resources mentioned above as required to meet One NASA and E-Government objectives.
- H. 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.
- I. Devise and implement Enterprise information architecture.
- J. Support the management of ESE advanced technology test environment, including system administration of multiple UNIX and Windows NT systems, and testing, development, and infusion of new technology.

#### **10.8.2.1 Anticipating IT Service Capabilities**

The Contractor shall work with the Code to assess the physical and technical infrastructure (including plant wiring and hub configuration) both as it currently is and as it might evolve. To best support the dramatic changes in Enterprise program management at HQ, capacity planning assessments will be required to gauge and monitor local area and wide area network throughput, traffic peaks, and server demand, and to anticipate the potential impacts of ESE applications on the ESE-unique and NASA infrastructure. The assessment will examine server architecture with the goal of providing feasible engineering recommendations as to server configuration (UNIX or other) and LAN/WAN configuration.

#### **10.8.3 Deliverables**

Deliverables shall consist of the following:

- a. Documented evaluation and development of prototype solutions, incorporating emerging technologies to further the collaborative IT environment for the Enterprise.
- b. Investigations and demonstrations of existing and emerging technologies
- c. Evaluation and recommendations concerning emerging technologies with particular emphasis on collaborative tools, knowledge management, and communicating knowledge.
- d. Recommendations concerning ESE IT architecture as required.
- e. Continual enhancements to approved prototypes.
- f. Enhancements to the ESE Web site(s).
- g. Enhancements to the ESE Congressional Database.
- h. Enhancements to Earth Science Extranet (ESX)
- i. Plans and schedules for integration of ESE data resources
- j. Iterative releases of the ESE Information Architecture, as required.

#### **10.8.4 Metrics**

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