

Task Statement of Work (SOW)

Date: December 01, 2015
Task: NCCS Facilities
Task Order: 6063/0
Task Monitor: 

I. Summary of Work

The task order covers facilities support for the NASA Center for Climate Simulation (NCCS) and facilities support for Building 28 Room E220 within the Computational and Information Sciences and Technology Office (CISTO).

II. Period of Performance

The period during which the work for this task shall be performed is between March 1, 2016 and February 28, 2017.

III. Task Description***Area 1: NCCS Facilities Management***

The contractor shall be responsible for:

- a. Coordinating all aspects (power, cooling, work orders, space, etc.) of the NCCS related facilities (E100, S100, S214, and S214a) with the appropriate personnel within the NASA Facilities Management Division (FMD).
- b. Coordinating all aspects of the NCCS equipment requirements within other facilities not managed directly by the NCCS (such as E220 and B32 rooms S9 and W030).
- c. Providing input into capacity planning to meet NCCS facility requirements.
- d. Supporting the planning and execution of modifications to the NCCS related facilities by FMD as required to meet new requirements.
- e. Providing a 24x7 monitoring of the operational status of all NCCS related facilities through automated monitoring for, at a minimum, power, cooling, water, and environmental monitoring.
- f. Regularly reporting on the status of all NCCS related facilities, coordinate planned outages, respond to unplanned outages, and support the root cause analysis of any issues.
- g. Documenting all aspects of the NCCS related facilities to include at a minimum floor diagrams, power requirements, power distribution, Uninterrupted Power Supply (UPS) configurations, Power Distribution Unit (PUD) schedules, Chilled Water Distribution Unit (CDU) configurations, and cooling load requirements.

Area 2: Alternate FOM

The contractor shall be responsible for serving as Alternate FOM for the Building 28 South and East wings.

Area 3: E220C Facilities Management

The contractor shall be responsible for:

- a. Serve as the Room E220 coordinator for power, cooling, work orders, space modifications, and liaison with other Center organizations for Building 28 Room E220, which houses operational equipment for multiple tenants including NCCS, SEDVME, other Code 600 Divisions and other Directorates.
- b. Coordinate all aspects of Room E220 related facilities with the appropriate tenants, the Task Monitor, the Building 28 FOM and NASA FMD.
- c. Provide input into capacity planning to meet Room E220C facility requirements including power, cooling, networking, physical layout, etc., with an emphasis on reliability, flexibility and redundancy (as needed).
- d. Support the planning and execution of modifications to the facilities by FMD as required by upgrades or system changes.
- e. Support the planning of alternate solutions to tenant facilities requirements, such as location/relocation to containers or to other buildings, as necessary.
- f. Provide a 24x7 monitoring of the operational status of Room E220C through automated monitoring (e.g., power, cooling, environmental conditions, leaks) wherever possible. In the event of unplanned facility outages or other unexpected problems the contractor shall notify the Task Monitor and the designated representatives of each tenant promptly. The contractor shall regularly report on the status of all related facilities to the Task Monitor and the designated representatives of each tenant of Room E220C, coordinate planned outages, and support the root cause analysis of unplanned outages.
- g. Document all aspects of the Room E220C facility. The contractor shall maintain floor diagrams, including information about the tenant contacts, the power requirements for the equipment, cooling loads, capacities, and power distribution, including the number and types of tails associated with each PDU. The contractor shall be able to break power requirements out by rack and by tenant. The tenants will supply the power requirements – total equipment requirements and, where appropriate, the rack's power capacity – on a per-rack basis. The floor diagrams shall be updated as needed. Updates shall be made within one month of changes such as equipment moves into or out of Room E220C.

IV. Deliverable Items and Schedule

In addition to the day-to-day work described in section III, the following deliverables will be completed:

Number	Deliverable	Due Date
NF4-1	<i>NCCS Floor Diagrams</i> Maintain and refresh the NCCS floor diagrams and equipment specifications to define the position of the equipment within the rooms, power and cooling requirements, capacities, and power distribution.	Within 30 calendar days of any change or at least every 6 months
NF4-2	<i>NCCS Power Distribution Documentation</i> Maintain and refresh the NCCS power distribution documentation, PDU schedules (breaker type, rack assignment per breaker, type of tail).	Within 30 calendar days of any change or at least every 6 months
NF4-3	<i>NCCS Facilities Power Usage Monitoring</i> Integrate a solution to monitor and track the power usage for racks with smart PDUs.	Ongoing; as needed
NF4-4	<i>E220C Notification Process</i> Update the notification process for building 28, room E220C tenants of environmental issues.	Within 30 calendar days of any change or

Number	Deliverable	Due Date
		at least every 6 months
NF4-5	E220C Configuration Management Document Update the configuration management document for building 28, room E220C tenants.	Within 30 calendar days of any change or at least every 6 months
NF4-6	E220C Floor Diagrams Refresh the E220C floor diagrams, including information about the power requirement for the equipment, cooling loads, capacities, and power distribution.	As needed within 30 calendar days of changes, or at least every six months
NF4-7	E220C Power Distribution Documentation Refresh the E220C power distribution documentation including the number and types of tails associated with each PDU. The contractor shall be able to break power and cooling requirements out by rack and by tenant.	As needed within 30 calendar days of changes, or at least every six months
NF4-8	Facilities Notifications Notifications of facility issues through automated processes.	Ongoing throughout the period of performance
NF4-9	Root Cause Analysis Document the root cause analysis of any unplanned outages associated with power, cooling, or environmental issues.	Ongoing throughout the period of performance
NF4-10	Updated Floor Diagrams Convert and update all floor diagrams from AutoCad to MicroSoft Visio or similar program.	August 31, 2016
NF4-11	Create Facilities Checklist Generate and maintain a facilities checklist for E100, S100, and E220C. The checklist should include information about how to check the facilities and environmental conditions. The checklist should include the expected conditions for such things as, but not limited to, air temperature, humidity, and power draws.	November 30, 2016
NF4-12	Support NCCS Power Upgrades Provided that funding is available, support the installation of an additional 550 kVA UPS in S100 and associated power distribution units.	February, 28, 2016

V. Travel

The contractor is expected to propose travel as necessary to perform this task. As part of the contractor's Task Order response, a spreadsheet of proposed travel shall be provided to the Government that outlines the proposed travel during the contract year. It is expected that travel plans will change throughout the contract year. Therefore, travel plans shall be updated and forwarded to the Government on a monthly basis.

Travel may include (but not be limited to):

- Attend conferences relevant to support this task.
- Travel to other centers as required.
- Attend technical meetings as required.
- Travel to training locations.
- Trips to Goddard in support of deliverable activities.

After the completion of the travel, the Contractor shall provide to the Task Monitor and Contract Management a Trip Report for both domestic and foreign travel that includes:

- Name of Traveler
- Trip Itinerary
- Task Name and Number
- Purpose of Trip
- Contact(s) and Summary of Discussion(s)
- Summary of Presentation(s)/Talk(s)
- Copy of Presented Material, if applicable

In addition to the above, the following information shall be included in all Trip Reports for foreign travel:

- Statement of and Date of Threat Vulnerability Briefing
- Statement of and Date of Threat Vulnerability Debriefing (including the date the debriefing questionnaire was mailed to the Threat Vulnerability office. If no formal debriefing was required, so state)
- Statement of and Date of Export Compliance Briefing (if not applicable, so state and provide date of approval for 1676 package)

Approvals of all travel (conferences, meetings, or training; domestic or international) must adhere to all relevant NASA directives and to the CISTO Travel Approval process.

VI. Training

It is expected that the contractor personnel assigned to this work have the necessary training at the beginning of this task to complete all deliverables. The contractor may propose training beyond what is typically expected of the proposed labor categories that they deem necessary in support of their technical approach to meet the deliverables. Training plans must be updated and forwarded to the Government on a monthly basis to include, but not limited to, the following information: training completed, upcoming training, and proposed modifications to the training plans.

Training may include (but not be limited to):

- Conferences tutorials or workshops relevant to support this task.
- Cross training at other centers as required.
- On-line training.

The Contractor shall provide to the Task Requester and Contract Management a Report for all training that includes:

- Name of Person Attending Training

- Training Content/Agenda/Overview
- Task Name and Number
- Purpose of Training
- Summary of Training/Presentation(s)/Talk(s)
- Contact(s) and Summary of Discussion(s)
- Copy of Training Material, if applicable

VII. Work Location

This work shall be performed primarily on-site at the Goddard Space Flight Center, but the contractor may be required to perform some work at the contractor's facility.

VIII. Reporting Requirements

The contractor shall:

- (B.1.2) Monthly Status Reports (MSR) shall be submitted on or before the 8th calendar day of each month for the previous month or as jointly determined following contract award. There should be one MSR per month that covers all task orders under the contract. The MSR shall be distributed electronically to the Contracting Officer (CO), Contracting Officer's Representative (COR), and all Task Monitors.
- (B.1.4) All White Papers or Reports outlined in the Deliverable Schedule shall be provided electronically to the COR and Task Monitor as specified.
- (B.1.5) Provide an electronic copy of a Monthly Highlights Report (MHR) to the COR and Task Monitors by the last business day on or before the 4th calendar day of each month. There should be one MHR per month that covers all task orders under the contract. The highlights will be incorporated into the Monthly NCCS report written by Government personnel to the High-End Computing Portfolio Manager.
- (B.1.8) Provide a final task order report within 30 days after completion in electronic form to the Contracting Officer (CO) (letter transmittal only), Contracting Officer's Representative (COR), and Task Monitor.
- (B.1.9) Travel reports shall be included in the next MSR.
- (B.1.10) Provide an electronic copy of the NASA Form 533 for this task 10 days after the close of the Contractor's accounting period and Quarterly in accordance with Attachment. Send the 533 to Contracting Officer (CO), Contracting Officer's Representative (COR), Resource Analyst (Code 603), and Finance Office (Code 155).
- (B.1.12) The annual Financial Report of NASA Property in the Custody of Contractors (NASA Form 1018) is due October 15. This shall be submitted through the NF 1018 Electronic Submission System (NESS).
- (B.1.13) An electronic copy of the New Technology Reports is due to the Contracting Officer (CO) and New Technology Representative if one is required by any of the task orders under the contract.
- (B.1.15) Electronic monthly and annual Safety & Health Reports (S&HR) shall be submitted to Contracting Officer (CO) and Code 350. There should be one S&HR per month that covers all task orders under the contract.
- (B.1.16) An electronic Personal Identity Verification (PIV) Report shall be provided to the Contracting Officer (CO), Contracting Officer's Representative (COR), and Code 240 monthly. There should be one report per month that covers all task orders under the contract.
- Meet with the Contracting Officer's Representative (COR) and technical and financial Government representatives monthly to discuss financial status. Topics covered shall include:

Funding provided by NASA, Funding planned to be provided by NASA, Funding obligated to the Task Order, Status of subcontracts for Tools and ODCs, Expenses invoiced, Funds available on the Task Order (not expensed or obligated on subcontracts), and Expected monthly labor expenses.

IX. Security Requirements

This task shall comply with IT security requirements as documented in the NCCS IT Security Plan and 600 IT Security Plan as applicable.