**SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS**
***Offeror to Complete Blocks 12, 17, 23, 24, & 30***

| | | | | |
|---|---|---|---|---|
| | | | 1. Requisition Number NAAJ1000-9-10360 | PAGE 1 OF 258 |
| 2. Contract No. | 3. Award/Effective Date | 4. Order Number | 5. Solicitation Number DG133W-09-RP-0091 | 6. Solicitation Issue Date May 29, 2009 |
| 7. For Solicitation Information Call: | a. Name ANITA R. MIDDLETON Anita.R.Middleton@noaa.gov | | b. Telephone Number 301-713-3405 x167 | 8. Offer Due Date/Local Time July 28, 2009/01:00PM ET |

9. Issued By Code AJF30024

NWS ACQUISITION DIVISION /OFA63
1325 EAST-WEST HWY.
SSMC-2 RM 11226
SILVER SPRING, MD 20910

10. This Acquisition is

- [ ] Unrestricted
- [X] Set-Aside 100 % for
- [ ] Small Business
- [ ] Emerging Small Business
- [ ] HUBZone Small Business
- [ ] Service-Disabled Veteran-
- [X] 8(a)

NAICS: 541519
Size Standard: $25M

11. Delivery for FOB Destination Unless
[X] See Schedule

12. Discount Terms

[ ] 13a. This contract is a rated order under DPAS (15 CFR 700)

13b. Rating

14. Method of Solicitation
[ ] RFQ [ ] IFB [X] RFP

15. Deliver To Code AJF30024
NWS ACQUISITION DIVISION /OFA63
1325 EAST-WEST HWY.
SSMC-2 RM 11226
SILVER SPRING, MD 20910

16. Administered By Code

17a. Contractor/Offeror Code Facility Code

Telephone No TIN:

17b. **Check if Remittance is Different and Put Such Address in Offer.**
[ ]

18a. Payment Will Be Made By Code

18b. **Submit Invoices to Address Shown in Block 18a Unless Box Below is**
[X] See Addendum. Paragraph 1.1.49

| 19. ITEM NO. | 20. SCHEDULE OF SUPPLIES/SERVICES | 21. QUANTITY | 22. UNIT | 23. UNIT PRICE | 24. AMOUNT |
|---|---|---|---|---|---|

25. Accounting and Appropriation Data

26. Total Award Amount *(For Govt. Use Only)*

[X] 27a. Solicitation incorporates by reference FAR 52.212-1, 52.212-4. FAR 52.212-3 and 52.212-5 are attached. Addenda [X] are [ ] are not attached
[ ] 27b. Contract/Purchase Order incorporates by reference FAR 52.212-4. 52.212-5 is attached. Addenda [ ] are [ ] are not attached

[X] 28. Contractor is required to sign this document and return 1 copies to Issuing Office. Contractor agrees to furnish and deliver all items set forth or otherwise identified above and on any additional sheets subject to the terms and conditions specified herein.

[ ] 29. Award of Contract: Reference. _____ Offer Dated _____. Your offer on Solicitation (Block 5), including any additions or changes which are set forth herein, is accepted as to items:

30a. Signature of Offeror/Contractor

31a. United States of America *(Signature of Contracting Officer)*

30b. Name and Title of Signer *(Type or Print)*

30c. Date Signed

31b. Name of Contracting Officer *(Type or Print)*

31c. Date Signed

32a. Quantity in Column 21 Has Been
[ ] Received [ ] Inspected [ ] Accepted, and Conforms to the Contract, Except as Noted: _____

32b. Signature of Authorized Government Representative

32c. Date

32d. Printed Name and Title of Authorized Government Representative

32e. Mailing Address of Authorized Government Representative

32f. Telephone Number of Authorized Government Representative

32g. E-mail of Authorized Government Representative

33. Ship Number
[ ] Partial [ ] Final

34. Voucher Number

35. Amount Verified Correct For

36. Payment
[ ] Complete [ ] Partial [ ] Final

37. Check Number

38. S/R Account Number

39. S/R Voucher Number

40. Paid By

41a. I certify this account is correct and proper for payment

41b. Signature and Title of Certifying Officer

41c. Date

42a. Received By (Print)

42b. Received At (Location)

42c. Date Rec'd (YY/MM/DD)

42d. Total Containers

## SCHEDULE Continued

| Item No. | Supplies/Services | Quantity | Unit | Unit Price | Amount |
|---|---|---|---|---|---|
| | This is a Request for Proposal (RFP) for the NOAALink program. The program will acquire information technology product and service solutions for the National Oceanic & Atmospheric Administration and other bureaus and offices of the Department of Commerce. The NOAALink program seeks toachieve economies of scale, standardization, and comprehensiveness. It seeks a secure, reliable, and robust operating environment.<br><br>Program Ceiling Amount: $2.5 Billion<br><br>Period of Performance: 10 years from the date of award.<br><br>The Government intends to award three (3) 8(a) contracts via this solicitation. The total ceiling amount for all three (3) awards shall not exceed $300M over the life of this contract.<br><br>NOAA anticipates multiple awards in accordance with Subpart 12 of the Federal Acquisition Regulation and such other subparts as may be relevant. | | | | |
| 0000 | Information Technology, Product and Service Solutions in accordance with the Performance Work Statement entitled “NOAALink Program”, dated December 2008.<br><br>In accordance with paragraph 1.1.14, the Government shall place orders totaling a minimum of $10,000.00 for the life of the contract. | 0 | EA | _____ | _____ |

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**ALTERNATE I (OCT 2008)**
**(Reference 12.301)**

**1.1.1 52.212-4A ADDENDUM TO 52.212-4**

**1.1.2 52.216-18 ORDERING (Oct 1995)**
(Reference 16.506(a))

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from date of award through 10-years from award date.
(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

**1.1.3 52.216-19 ORDER LIMITATIONS (Oct 1995)**
(Reference 16.506(b)) **(NOTE: CLAUSE APPLIES AT THE DELIVERY/TASK ORDER LEVEL)**

a) *Minimum order*. When the Government requires supplies or services covered by this contract in an amount of less than ******, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract. **NOTE: Delivery/Task Orders $5,000.00 and Purchase Card Orders $25.00.
(b) *Maximum order*. The Contractor is not obligated to honor—
(1) Any order for a single item in excess of $10M;
(2) Any order for a combination of items in excess of $100M; or
(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.
(c) If this is a requirements contract (*i.e.,* includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.
(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

**1.1.4 52.216-22 INDEFINITE QUANTITY (Oct 1995)**
(Reference 16.506(e))

a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.
(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."
(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; *provided*, that the Contractor shall not be required to make any deliveries under this contract after 10 years from the award date of the contract.

(End of clause)

**1.1.5 52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)**
(Reference 17.208)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 30 days prior to expiration of contract, delivery/task order.

(End of clause)

**1.1.6 52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS ALTERNATE III (DEVIATION) (JUL 2008) (Delivery/Task Order Level, only)**

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer—

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(b) By submission of its offer, the Offeror represents that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation shall be made directly by the contracting officer to the successful 8(a) offeror selected through the evaluation criteria set forth in this soliciation.

(d)(1) *Agreement*. A small business concern submitting an offer in its own name shall furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States or its outlying areas. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed $25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply to construction or service contracts.

(2) The _____ [*insert name of SBA's contractor*] will notify the _____ [*insert name of contracting agency*] Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

**1.1.7 52.219-71 SECTION 8(a) DIRECT AWARD (DEVIATION) (JUL 2008)**
**(Ref: 19.811-3(f)) (TASK ORDER LEVEL, Only)**

(a) This contract is issued as a direct award between the contracting activity and the 8(a) contractor pursuant to a Partnership Agreement between the Small Business Administration (SBA) and the Department of Commerce (DoC). Accordingly, the SBA, even if not identified in Section A of this contract, is the prime contractor and retains responsibility for 8(a) certification, 8(a) eligibility determinations and related issues, and providing counseling and assistance to the 8(a) contractor under the 8(a) program. The cognizant SBA district office is:

_____
_____
_____

(To be completed by the contracting officer at time of award)

(b) The contracting activity is responsible for administering the contract and taking any action of behalf of the Government under the terms and conditions of the contract. However, the contracting activity shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting activity shall also coordinate with SBA prior to processing any novation agreement. The contracting activity may assign contract administration functions to a contract administration office.

(c) The 8(a) contractor agrees:

(1) To notify the Contracting Officer, simultaneously with its notification to SBA (as required by SBA's 8(a) regulations), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish ownership or control of the concern. Consistent with 15 U.S.C 637(a)(21) transfer of ownership or control shall result in termination of the contract for convenience, unless SBA waives the requirement prior to the actual relinquishing of ownership or control; and
(2) To adhere to the requirements of FAR 52.219-14, Limitations on Subcontracting.

(End of Clause)

**1.1.8 52.219-72 NOTIFICATION TO DELAY PERFORMANCE (DEVIATION) (JUL 2008) (Ref: 19.811-3(g)) (TASK ORDER LEVEL, Only)**

The Contractor shall not begin performance under this purchase/task order until 2 working days have passed from the data of its receipt. Unless the Contractor receives notification from the Small Business Administration that it is ineligible for this 8(a) award, or otherwise receives instructions from the contracting officer, performance under this task order may begin on the third working day following receipt of the purchase/task order. If a determination of ineligibility is issued within the 2-day period, the purchase/task order shall be considered cancelled.

(End of Clause Deviation)

**1.1.9 1352.201-70 CONTRACTING OFFICER'S AUTHORITY (MAR 2000)**

The Contracting Officer is the only person authorized to make or approve any changes in any of the requirements of this contract and notwithstanding any provisions contained elsewhere in this contract, the said authority remains solely in the Contracting Officer. In the event the Contractor makes any changes at the direction of any person other than the Contracting Officer, the change will be considered to have been made without authority and no adjustment will be made in the contract terms and conditions, including price.

(End of clause)

**1.1.10 1352.201-71 CONTRACTING OFFICER'S REPRESENTATIVE (COR) (FEB 2005)**

a. TBD is hereby designated as the Contracting Officer's Representative (COR). The COR may be changed at any time by the Government without prior notice to the Contractor by a unilateral modification to the Contract. The COR is located at:
TBD

The Alternate Contracting Officer's Representatives (ACORs) per awarded contract are:

TBD

There will be Government Task Monitors assigned to individual task or delivery orders.

b. The responsibilities and limitations of the COR are as follows:
(1) The COR is responsible for the technical aspects of the project and serves as technical liaison with the Contractor. The COR is also responsible for the final inspection and acceptance of all reports, and such other responsibilities as may be specified in the contract.
(2) The COR is not authorized to make any commitments or otherwise obligate the Government or authorize any changes which affect the Contract price, terms or conditions. Any Contractor request for changes shall be referred to the Contracting Officer directly or through the COR. No such changes shall be made without the expressed prior authorization of the Contracting Officer (CO). The CO may designate assistant or alternate COR(s) to act for the COR by naming such assistant/alternate(s) in writing and transmitting a copy of such designation to the Contractor.

(End of clause)

**1.1.11 1352.208-70 PRINTING (MAR 2000)**

Unless otherwise specified in this contract, the Contractor shall not engage in, or subcontract for, any printing (as that term is defined in Title I of the Government Printing and Binding Regulations in effect on the effective date of this contract) in connection with performing under this contract. Provided, however, that performing a requirement under this contract involving the duplicating of less than 5,000 units of only one page, or less than 25,000 units in

the aggregate of multiple pages, such pages are not exceeding a maximum image size of 10 and 3/4 inches by 14 and 1/4 inches, will not be deemed printing.

(End of clause)

### 1.1.12 1352.209-70 RESTRICTIONS ON FUTURE CONTRACTING (MAR 2000)

(a) The contractor and its subcontractors may be prohibited from competing for or receiving a subsequent NOAA contract, as prime contractors or subcontractors at any tier:

(1) To perform systems engineering and/or technical direction work associated with the NOAALink services/supplies for which the offeror does not have overall contractual responsibility consistent with FAR 9.505-1, or

(2) that would place the offeror in a position to evaluate or otherwise favor its own products or services, or

(3) that would otherwise impair offeror's objectivity.

(b) The restrictions described herein shall apply to performance or participation by the contractor and any of its affiliates or successors in interest (hereinafter collectively referred to as "contractor") in the activities covered by this clause as a prime contractor, subcontractor, co-sponsor, joint venture, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.

(End of clause)

### 1.1.13 1352.209-71 ORGANIZATIONAL CONFLICT OF INTEREST (MAR 2000)

(a) Purpose. The purpose of this clause is to ensure that the contractor and its subcontractors (1) are not biased because of their financial, contractual, organizational, or other interests which relate to the work under this contract, and (2) do not obtain any unfair competitive advantage over other parties by virtue of their performance of this contract.

(b) Scope. The restrictions described herein shall apply to performance or participation by the contractor and any of its affiliates or successors in interest (hereinafter collectively referred to as "contractor") in the activities covered by this clause as a prime contractor, subcontractor, co-sponsor, joint venture, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.

(c) Warrant and Disclosure. The warrant and disclosure requirements of this paragraph apply with full force to both the Contractor and all subcontractors. The Contractor warrants that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which would give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, and that the Contractor has disclosed all such relevant information. The Contractor agrees it shall make an immediate and full disclosure in writing to the Contracting Officer of any potential or actual organizational conflicts of interest or the existence of any facts that may cause a reasonably prudent person to question the contractor's impartiality because of the appearance or existence of bias or an unfair competitive advantage (hereinafter facts to be disclosed). If such potential or actual organizational conflict of interest or facts to be disclosed could concern NOAA and DoC Bureaus under the NOAALink Program, the Contractor agrees to make the immediate and full disclosure, specified in this subsection (c), to the Contracting Officer. Such disclosure shall include a description of the action the Contractor has taken or proposes to take in order to avoid, neutralize, or mitigate any resulting conflict of interest.

(d) Remedies. The Contracting Officer may terminate this contract for convenience, in whole or in part, if the Contracting Officer deems such termination necessary to avoid, neutralize or mitigate an actual, apparent, or potential organizational conflict of interest. If the Contractor fails to disclose facts pertaining to the existence of potential or actual organizational conflict of interest or misrepresents relevant information to the Contracting Officer, the Government may terminate the contract for default, debar the Contractor from Government contracting, or pursue such other remedies as may be permitted by law or this contract.

(e) Subcontracts. The Contractor shall include a clause substantially similar to this clause, including paragraphs (f) and (g), in any subcontract or consultant agreement at any tier expected to exceed the simplified acquisition threshold determined in accordance with FAR Part 13. The terms "contract," "contractor," and "contracting officer" shall be appropriately modified to preserve the Government's rights.

(f) Prime Responsibilities. The Contractor shall obtain from its subcontractor or consultants the disclosure required in FAR Part 9.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. The Contractor shall identify and avoid, neutralize, or mitigate any subcontractor organizational conflict prior to award of the contract to the satisfaction of the Contracting Officer. If the subcontractor's organizational conflict cannot be avoided, neutralized, or mitigated, the Contractor must obtain the written approval of the Contracting Officer prior to entering into the subcontract. If the Contractor becomes aware of a subcontractor's potential or actual organizational conflict of interest after contract award, the Contractor agrees the Contractor may be required to eliminate the subcontractor from its team, at the Contractor's own risk.

(g) Waiver. The parties recognize that this clause has potential effects which will survive the performance of this contract and that it is impossible to foresee each circumstance to which it might be applied in the future. Accordingly, the Contractor may at any time seek a waiver from the Head of the Contracting Activity by submitting such waiver request to the Contracting Officer including a full written description of the requested waiver and the reasons in support thereof.

(End of clause)

### 1.1.14 1352.209-72 RESTRICTIONS AGAINST DISCLOSURE (March 2000)

a. The Contractor agrees, in the performance of this contract, to keep the information furnished by the Government and designated by the Contracting Officer of Contracting Officer's Technical Representative in the strictest confidence. The Contractor also agrees not to publish or otherwise divulge such information in whole or in part, in any manner or form, nor to authorize or permit others to do so, taking such reasonable measures as are necessary to restrict access to such information while in the Contractor's possession, to those employees needing such information to perform the work provided herein, i.e., on a "need to know" basis. The Contractor agrees to immediately notify the Contracting Officer in writing in the event that the Contractor determines or has reason to suspect a breach of this requirement.

b. The Contractor agrees not to disclose any information described in subsection (a) to any persons or individual unless prior written approval is obtained from the Contracting Officer. The Contractor agrees to insert the substance of this clause in any consultant agreement or subcontract hereunder.

### 1.1.15 1352.215-70 PERIOD OF PERFORMANCE (MAR 2000)

a. The period of performance of this contract is from date of award and shall not exceed 10 years.

b. The option periods that may be exercised are as follows: Not Applicable

(End of clause)

### 1.1.16 1352.216-70 CONTRACT TYPE (MAR 2000)

This is an Indefinite Delivery/Indefinite Quantity type contract for Information Technology services and supplies with Firm Fixed Price, Labor Hour, or Time-and-Material Task or Delivery Orders.

(End of clause)

### 1.1.17 1352.216-72 MINIMUM AND MAXIMUM CONTRACT AMOUNTS (MAR 2000) (NOTE: CLAUSE APPLIES AT THE CONTRACT LEVEL)

During the period specified in the ORDERING clause (FAR 52.216-18), the Government shall place orders totaling a minimum of $10,000.00 for the life of the contract. The amount of all orders issued under a contract shall not exceed $2.5B; provided however, the total ceiling price for all orders under NOAALink shall not exceed $2.5B.

(End of clause)

### 1.1.18 1352.216-76 PLACEMENT OF ORDERS (MAR 2000)

The Contractor shall provide IT services and supplies under this Contract only as directed in Task or Delivery Orders. In accordance with FAR 16.505, each order will include:

(i) Date of order.
(ii) Contract number and order number.

(iii) Item number and description, quantity, and unit price or estimated cost or fee.
(iv) Delivery or performance date.
(v) Place or delivery or performance (including consignee).
(vi) Packaging, packing, and shipping instructions, if any.
(vii) Accounting and appropriation data.
(viii) Method of payment and payment office, if not specified in the contract.
(ix) Any other pertinent information.

In accordance with FAR 52.216-18, ORDERING, the following individuals (or activities) are authorized to place orders against this contract:

Any duly appointed Contracting Officer acting within the scope and limits of his or her Contracting Officer Warrant.

(End of clause)

**1.1.19 1352.216-78 TASK ORDERS (MAR 2000)**

a. In task order contracts all work shall be initiated only by issuance of a fully executed task order issued by the Contracting Officer. The work to be performed under these task orders must be within the scope of the contract. The Government is only liable for labor hours expended and hardware accepted under the terms and conditions of this contract to the extent that a fully executed delivery/task order has been issued and covers the required work. Charges for any work not authorized shall be disallowed. The contract types allowed under these delivery/task orders are Firm-Fixed Price, Labor Hour, or Time-and-Materials.

b. The COTR, ACOTR, or Government Task Monitor shall initiate the delivery/task order implementation process by preparing a statement of requirements or objectives to be achieved by completion of the task order in the form of a Task Objective Statement (TOS). The TOS will contain a detailed description of the functional or other objectives to be achieved, a schedule for completion of the task order, and deliverables to be provided by the task order.

c. The Contractor shall acknowledge receipt of each TOS and shall develop and forward to the COTR or ACOTR within ten (10) calendar days a proposed Task Management Plan (TMP) for accomplishing the assigned task within the period specified. The TMP shall define the scope, specific tasks and actions which are proposed to be taken by the Contractor to complete the task order, and cost estimate/proposed price. The TMP shall provide the Contractor's interpretation of the scope of work, a description of the technical approach, and a work schedule.

d. Based upon the contents of the TMP, the Contractor and the Government shall negotiate the number of hours and labor mix required to complete the task order, any changes in the scope of the work to be performed, the schedule or the deliverables to be provided in the task order.

e. Within five (5) working days following the conclusion of the final negotiations related to the TMP, the Contractor shall submit a revised TMP which reflects the negotiated agreement.

f. Delivery/Task orders will be considered fully executed upon signature of the Contracting Officer. The Contractor shall begin work on the task order in accordance with the effective date indicated on the task order.

g. Following execution of the delivery/task order, technical clarifications may be issued in writing at any time by the COTR, ACOTR, or Government Task Monitor to amplify, or provide additional guidance to the Contractor regarding performance of the task order. The Contractor shall notify the Contracting Officer of any instructions or guidance the Contractor considers to be a change to the delivery/task order which will impact the cost, schedule or deliverables content of the baseline work plan. In cases where technical instructions or other events may dictate a change from the baseline, task orders may be formally modified in writing by the Contracting Officer to reflect modifications to tasking. The Contractor is responsible for revising the work plan to reflect task order modifications within five (5) working days following negotiation or issuance of a modification of the task order.

h. Task orders may be placed during the period of performance of the contract, as identified in the statement of objectives. Labor rates applicable to hours expended in performance of an order shall be contract rates in the awarded contract. Products in performance of an order shall be in accordance with discounts set-forth in the

contract. Any order issued during the period of performance of this contract and not completed within that time shall be governed by the contract terms to the same extent as if the order were completed during the contract's period of performance, including the contract and individual order ceiling prices. Work performed on such orders after the end of the contract's period of performance will continue to be charged at the last effective rates.

i. The Government may issue task orders unilaterally and the contractor shall perform upon receipt. A proposal shall be submitted to be definitized within 30 days of task or delivery order award.

j. The Labor Categories and associated Rates used for each task or delivery order shall be those set forth in the contract and the NOAALink Service Catalog which shall be incorporated after award.

(End of clause)

**1.1.20 1352.228-70 INSURANCE COVERAGE (MAR 2000)**

Pursuant to the clause "Insurance-Work on a Government Installation (FAR 52.228-5)," the Contractor will be required to present evidence to show, as a minimum, the amounts of insurance coverage indicated below:

a. Workers Compensation and Employer's Liability. The Contractor is required to comply with applicable federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with a Contractor's commercial operations that it would not be practical to require this coverage. Employer's liability coverage of at least $100,000 shall be required, except in states with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

b. General Liability.

1. The Contractor shall have bodily injury liability insurance coverage written on the comprehensive form of policy of at least $500,000 per occurrence.

2. Property Damage Liability Insurance shall be required in the amount of $20,000.00.

c. Automobile Liability. The Contractor shall have automobile liability insurance written on the comprehensive form of policy. The policy shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. Policies covering automobiles operated in the United States shall provide coverage of at least $200,000 per person and $500,000 per occurrence for bodily injury and $20,000 per occurrence for property damage.

d. Aircraft Public and Passenger Liability. When aircraft are used in connection with performing the contract, the Contractor shall have aircraft public and passenger liability insurance. Coverage shall be at least $200,000 per person and $500,000 per occurrence for bodily injury, other than passenger liability, and $200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least $200,000 multiplied by the number of seats or passengers, whichever is greater.

e. Vessel liability. When contract performance involves use of vessels, the contracting officer shall require, as determined by the agency, vessel collision liability and protection and indemnity liability insurance.

(End of clause)

**1.1.21 1352.228-71 DEDUCTIBLES UNDER REQUIRED INSURANCE COVERAGE (MAR 2000) (This clause applies to Time and Material and Labor Hour Delivery/Task Orders)**

The following requirements also apply to this contract:

a. The Contractor is required to present evidence of the amount of any deductibles in its insurance coverage.

b. For any insurance required pursuant to 1352.228-70, Insurance Coverage, the contractor's deductible is not allowable as a direct or indirect cost under this contract. The Government is not liable, and cannot be invoiced, for any losses up to the minimum amounts of coverage required in subsections (a) through (d) above. If the Contractor obtains an insurance policy with deductibles, the Contractor, and not the Government, is responsible for any deductible amount up to the minimum amounts of coverage stated.

c. If the Contractor fails to follow all procedures stated in this subsection and in FAR 52.228-7(g), any amounts above the amount of the obtained insurance coverage which are not covered by insurance will not be reimbursable under the contract.

(End of clause)

**1.1.22 1352.228-72 DEDUCTIBLES UNDER REQUIRED INSURANCE COVERAGE (MAR 2000) (This clause applies to Firm-Fixed Price Delivery/Task Orders)**

When the Government is injured, wholly or partially as a result of the Contractor's actions and such actions are covered by the insurance required by 1352.228-70, Insurance Coverage, the Government is entitled to recover from the Contractor the full amount of any such injury attributable to the Contractor regardless of an deductible. The Contracting Officer may offset the amount of recovery against any payment due to the Contractor.

(End of clause)

**1.1.23 1352.231-70 DUPLICATION OF EFFORT (MAR 2000)**

The Contractor hereby certifies that costs for work to be performed under this contract and any subcontract hereunder are not duplicative of any costs charged against any other Government contract, subcontract, or other Government source. The Contractor agrees to advise the Contracting Officer, in writing, of any other Government contract or subcontract it has performed or is performing which involves work directly related to the purpose of this contract. The Contractor also certifies and agrees that any and all work performed under this contract shall be directly and exclusively for the use and benefit of the Government, and not incidental to any other work, pursuit, research, or purpose of the Contractor, whose responsibility it will be to account for it accordingly.

(End of clause)

**1.1.24 1352.233-70 HARMLESS FROM LIABILITY (MAR 2000)**

The Contractor shall hold and save the Government, its officers, agents, and employees harmless from liability of any nature or kind, including costs and expenses to which they may be subject to or on account of any or all suits or damages of any character whatsoever resulting from injuries or damages sustained by any person or persons or property by virtue of performance of this contract, arising or resulting in whole or in part from the fault, negligence, wrongful act or wrongful omission of the contractor, or any subcontractor, their employees, and agents.

(End of clause)

**1.1.25 1352.237-70 REPORTS (MAR 2000)**

a. Progress Reports

The Contractor shall submit, to the Government, a progress report every one (1) month(s) after the effective date of the contract, and every 30 days thereafter during the period of performance. The Contractor shall prepare a progress report advising of the work completed during the performance period, the work forecast for the following period, and the names, titles and number of hours expended for each of the Contractor's professional personnel assigned to the contract, including officials of the Contractor. The report shall also include any additional information--including findings and recommendations--that may assist the Government in evaluating progress under this contract. The first report shall include a detailed work outline of the project and the Contractor's planned phasing of work by reporting period.

b. Final Report

Within 15 days of completion of the performance period, the Contractor shall submit, to the Government, a comprehensive draft report containing the Contractor's findings and recommendations. The report shall conform to the requirements of the contract, and include all necessary data, maps and exhibits to support findings and recommendations. It shall include a recapitulation of the amount of hours expended by each of the Contractor's employees, including officials of the Contractor. The report shall also include a brief summary, including short statements on the project's objectives, scope, methodology, information obtained, and conclusions. The Government will review the draft and return it to the Contractor within thirty (30) days after receipt with comments and instructions for a format to be used in the preparation of the final report. The Contractor shall incorporate the comments into a final report and furnish the Government with electronic copies upon contract completion.

c. In the event the Government does not return the draft copy of the report to the Contractor within the prescribed period, the Contractor shall be permitted an extra day for each day of delay caused by the Government. The Government shall not be liable for increased costs by reason of any such delay.

(End of clause)

**1.1.26 1352.237-71 SECURITY PROCESSING REQUIREMENTS FOR CONTRACTOR/SUBCONTRACTOR PERSONNEL WORKING ON A DEPARTMENT OF COMMERCE SITE OR IT SYSTEM (HIGH OR MODERATE RISK CONTRACTS) (DEC 2006)**

A. Investigative Requirements for High and Moderate Risk Contracts

All contractor (and subcontractor) personnel proposed to be employed under a High or Moderate Risk contract shall undergo security processing by the Department's Office of Security before being eligible to work on the premises of any Department of Commerce facility, or through a Department of Commerce IT system. All Department of Commerce security processing pertinent to this contract will be conducted at no cost to the contractor. The level of contract risk will determine the type and scope of such processing as noted below.

1. Non-IT Service Contracts
   a. High Risk - Background Investigation (BI)
   b. Moderate Risk - Moderate Background Investigation (MBI)
2. IT Service Contracts
   a. High Risk IT - Background Investigation (BI)
   b. Moderate Risk IT - Background Investigation (BI)
3. In addition to the investigations noted above, non-U.S. citizens must have a pre-appointment check that includes a Customs and Immigration Service (CIS - formerly Immigration and Naturalization Service) agency check.

B. Additional Requirements for Foreign Nationals (Non-U.S. Citizens)

To be employed under this contract within the United States, non-U.S. citizens must have:

1. Official legal status in the United States
2. Continuously resided in the United States for the last two years; and
3. Advance approval from the servicing Security Officer of the contracting operating unit in consultation with the Office of Security (OSY) headquarters. (OSY routinely consults with appropriate agencies regarding the use of non-U.S. citizens on contracts and can provide up-to-date information concerning this matter.)

C. Security Processing Requirement

1. Processing requirements for High and Moderate Risk Contracts are as follows:
   a. The contractor must complete and submit the following forms to the Contracting Officer Representative (COR):
      i. Standard Form 85P (SF 85P), Questionnaire for Public Trust Positions;
      ii. FD 258, Fingerprint Chart with OPM's designation in the ORI Block; and
      iii. Credit Release Authorization.
   b. The COR will review these forms for completeness, initiate the CD-254, Contract Security Classification Specification, and forward the documents to the cognizant Security Officer.
   c. Upon completion of the security processing, the Office of Security, through the servicing Security Officer and the COR, will notify the contractor in writing of the individual's eligibility to be given access to a Department of Commerce facility or Department of Commerce IT system.
2. Security processing shall consist of limited personal background inquiries pertaining to verification of name, physical description, marital status, present and former residences, education, employment history, criminal record, personal references, medical fitness, fingerprint classification, and other pertinent information. For non-U.S. citizens, the COR must request an Immigration and Customs Enforcement (formerly INS) agency check. It is the option of the Office of Security to repeat the security processing on any contract employee at its discretion.

D. Notification of Disqualifying Information

If the Office of Security receives disqualifying information on a contract employee, the COR will be notified. The COR, in coordination with the contracting officer, will immediately remove the contract employee from duty requiring access to Departmental facilities or IT systems. Contract employees may be barred from working on the premises of a facility for any of the following:

1. Conviction of a felony of a crime of violence or of a misdemeanor involving moral turpitude.
2. Falsification of information entered on security screening forms or of other documents submitted to the Department.
3. Improper conduct once performing on the contract, including criminal, infamous, dishonest, immoral, or notoriously disgraceful conduct or other conduct prejudicial to the Government regardless of whether the conduct directly related to the contract.
4. Any behavior judged to pose a potential threat to Departmental information systems, personnel, property, or other assets.

NOTE: Failure to comply with the requirements may result in termination of the contract or removal of some contract employees from Department of Commerce facilities or access to IT systems.

E. Access to National security Information

Compliance with these requirements shall not be construed as providing a contract employee clearance to have access to national security information.

F. The Contractor shall include the substance of this clause, including this paragraph, in all subcontracts.

(End of Clause)

### 1.1.27 1352.237-73 KEY PERSONNEL (MAR 2000)

a. The Contractor shall assign to this contract the following Key Personnel:

**(To be completed at time of contract award)**

| | |
|---|---|
| (Name) | Program Manager |
| (Name) | Deputy Program Manager |
| (Name) | Quality Assurance Manager |
| (Name) | Contracting Officer |
| (Name) | Financial/Account Manager |

b. The Contractor shall obtain the consent of the Contracting Officer prior to making Key Personnel substitutions. Replacements for Key Personnel must possess qualifications equal to or exceeding the qualifications of the personnel being replaced specified.

c. Requests for changes shall be submitted to the Contracting Officer at least 15 working days prior to making any permanent substitutions. The request should contain a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. The Contracting Officer will notify the Contractor within 10 working days after receipt of all required information of the decision on substitutions. The contract will be modified to reflect any approved changes.

(End of clause)

### 1.1.28 1352.237-74 FOREIGN NATIONAL VISITOR AND GUEST ACCESS TO DEPARTMENTAL RESOURCES (DEC 2006)

a. Contractor personnel requiring any access to systems operated by the Contractor for DOC or interconnected to a DOC network to perform contract services shall be screened at an appropriate level in accordance with Commerce Acquisition Manual 1337.70, Security Processing Requirements for Service Contracts. DOC shall provide screening using standard personnel screening forms, which the Contractor shall submit to the DOC Contracting Officer's Technical Representative (COTR) based on the following guidance:

(1) Contract personnel performing work designated Contract High Risk and personnel performing work designated Contract Moderate Risk in the information technology (IT) occupations and those with "global access" to an automated information system require a favorable pre-employment check before the start of work on the contract, regardless of the expected duration of the contract. After a favorable pre-employment check has been obtained, the Background Investigation (BI) for Contract High Risk and the Minimum Background Investigation (MBI) for Contract IT Moderate Risk positions must be initiated within three working days of the start of work.

(2) Contract personnel performing work designated Contract Moderate Risk who are not performing IT-related contract work do not require a favorable pre-employment check prior to their employment; however, the Minimum Background Investigation (MBI) must be initiated within three working days of the subject's start of work on the contract, regardless of the expected duration of the contract.

(3) Contract personnel performing work designated Contract Low Risk will require a National Agency Check and Inquiries (NACI) upon the subject's start of work on the contract if the expected duration of the contract exceeds 365 calendar days. The NACI must be initiated within three working days of the subject's start of work on the contract.

(4) Contract personnel performing work designated Contract Low Risk will require a Special Agreement Check (SAC) upon the subject's start of work on the contract if the expected duration of the contract (including options) exceeds 180 calendar days but is less than 365 calendar days. The SAC must be initiated within three working days of the subject's start of work on the contract.

(5) Contract personnel performing work on contracts requiring access to classified information must undergo investigative processing according to the Department of Defense National Industrial Security Program Operating Manual (NISPOM), (http://www.dss.mil/isec/nispom.htm) and be granted eligibility for access to classified information prior to beginning work on the contract.

The security forms may be obtained from the cognizant DOC security office servicing your bureau, operating unit, or Departmental office. At the option of the government, interim access to DOC IT systems may be granted pending favorable completion of a pre-employment check. Final access may be granted only on completion of an appropriate investigation based upon the risk level assigned to the contract by the Contracting Officer.

b. Within 5 days after contract award, the Contractor shall certify in writing to the COTR that its employees, in performance of the contract, have completed annual IT security awareness training in DOC IT Security policies, procedures, computer ethics, and best practices, in accordance with DOC IT Security Program Policy, section 3.13 (http://home.osec.doc.gov/DOC-IT-Security-Program-Policy.htm). The COTR will inform the Contractor of any other available DOC training resources.

c. Within 5 days of contract award, the Contractor shall provide the COTR with signed Nondisclosure Agreements as specified in Commerce Acquisition Regulation (CAR), 1352.209-72, Restrictions Against Disclosures.

d. The Contractor shall afford DOC, including the Office of Inspector General, access to the Contractor's and subcontractor's facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection, investigation, and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of DOC data or to the function of computer systems operated on behalf of DOC, and to preserve evidence of computer crime.

e. The Contractor shall incorporate this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of Clause)

### 1.1.29 1352.237-75 SECURITY PROCESSING FOR CONTRACTOR/SUBCONTRACTOR PERSONNEL WORKING ON A DEPARTMENT OF COMMERCE SITE (NATIONAL SECURITY CONTRACTS) (DEC 2006)

A. Security Investigative Requirements for National security Contracts.

National security contracts require employed contractors to gain access to national security information in the performance of their work. Regardless of the contractor, consultant, or expert's location, appropriate security access and fulfillment of cleared facility requirements as determined by the National Industrial Security Program Operation Manual (NISPOM) must be met. All contractors, consultants, and experts are subject to the appropriate investigations indicated below and are granted appropriate security access by the Office of Security based on favorable results. No national security material or documents shall be removed from a Department of Commerce facility. The circumstances of the work performance must allow the Department of Commerce to retain control over the information and keep the number of contract personnel with access to a minimum.

1. Special Sensitive or Critical Sensitive.
2. Non-Critical Sensitive.
3. All employees on Special or Critical Sensitive contracts require an updated personnel security background investigation every five (5) years. Employees on Non-Critical Sensitive contracts will require an updated personnel security background investigation every ten (10) years.

B. Security Procedures

Position sensitivity/risk assessments must be conducted on all functions that are performed by the contract. Risk assessments are determined in the same manner as those functions performed by employees. The Contracting Officer (CO) and Contracting Officer Representative (COR) should determine the level of sensitivity or risk with the assistance of the servicing Security Officer.

1. Contract employees of national security contracts must have a completed investigation and be granted an appropriate level security clearance by the Office of Security headquarters, before start of work.
2. The COR must send the contract employee's existing security clearance information, if applicable, or appropriate investigative request package to the servicing Security Officer who will review and forward it to the Office of Security Headquarters.
3. The Office of Security must confirm that contract employees have the appropriate security clearance before starting any national security work.

C. Security Forms Required

For Critical-Sensitive positions with Top Secret access, Critical-Sensitive positions with Secret access, and Non-Critical Sensitive positions with Secret or Confidential access, the following forms are required:

1. Form SF-86, Questionnaire for National Security Positions, marked "CON" in Block 1, Position Title, to distinguish it as a contractor case;
2. Form FD-258, Fingerprint Chart, with OPM's designation in the ORI Block; and
3. Credit Release Authorization Form.

D. Contracting Officer Representative (COR) Responsibilities

1. Coordinate submission of proper investigative request package with the servicing Security Officer, the Contracting Officer (CO), and the contractor.
2. Review the request package for completeness, ensuring that the subject of each package is identified as a contract employee, the name of the contractor is identified, and that each package clearly indicates the contract sensitivity designation.
3. Send the request package to the servicing Security Officer for investigative processing.

E. Servicing Security Officer Responsibilities
1. Review the package for completeness.
2. Ensure that the forms are complete and contain all the pertinent information necessary to request the background investigation.
3. Forward the request for investigation to the Defense Investigative Service Coordinating Office (DISCO).
4. Maintain records of contractor/consultant personnel in their units subject to the NISP.
5. Ensure that all contractor personnel have been briefed on the appropriate
F. The Contractor shall include the substance of this clause, including this paragraph, in all subcontracts.

(End of Clause)

**1.1.30 1352.239-73 SECURITY REQUIREMENTS FOR INFORMATION TECHNOLOGY RESOURCES (DEC 2006)**

(a) Applicability.
This clause is applicable to all contracts that require Contractor electronic access to Department of Commerce sensitive non-national security or national security information contained in systems, or administrative control of systems that process or store information, that directly support the mission of the Agency.
(b) Definitions.
For purposes of this clause the term "Sensitive" is defined by the guidance set forth in:
(1) Sensitive information "... any information, the loss, misuse, or unauthorized access, to or modification of which could adversely affect the national interest or the, conduct of federal programs, or the privacy to which individuals are entitled under section 552a of title 5, United States Code (The Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy."
(2) For purposes of this clause, the term "National Security" is defined by the guidance set forth in:
(i) The DOC IT Security Program Policy and Minimum Implementation Standards, Section 4.3 (http://www.osec.doc.gov/cio/ITSIT/DOC-IT-Security-Program-Policy.htm).
(ii) The DOC Security Manual, Chapter 18 (http://home.commerce.gov/osy/SecurityManual/Security%20Manual%20Contents2.pdf)
(iii) Executive Order 12958, as amended, Classified National Security Information. Classified or national security information is information that has been specifically authorized to be protected from unauthorized disclosure in the interest of national defense or foreign policy under an Executive Order or Act of Congress.
(3) Information technology resources include, but are not limited to, hardware, application software, system software, and information (data). Information technology services include, but are not limited to, the management, operation (including input, processing, transmission, and output), maintenance, programming, and system administration of computer systems, networks, and telecommunications systems.
(c) The Contractor shall be responsible for implementing sufficient Information Technology security, to reasonably prevent the compromise of DOC IT resources for all of the contractor's systems that are interconnected with a DOC network or DOC systems that are operated by the Contractor.
(d) All Contractor personnel performing under this contract and Contractor equipment used to process or store DOC data, or to connect to DOC networks, must comply with the requirements contained in the DOC Information Technology Management Handbook (http://www.osec.doc.gov/cio/cio_it_policy_page.htm), or equivalent/more specific agency or bureau guidance as specified immediately hereafter: __N/A_____
(e) Contractor personnel requiring a user account for access to systems operated by the Contractor for DOC or interconnected to a DOC network to perform contract services shall be screened at an appropriate level in accordance with Commerce Acquisition Manual 1337.70, Security Processing Requirements for Service Contracts.
(f) Within 5 days after contract award, the Contractor shall certify in writing to the COR that its employees, in performance of the contract, have completed initial IT security orientation training in DOC IT Security policies, procedures, computer ethics, and best practices, in accordance with DOC IT Security Program Policy, chapter 15, section 15.3. The COR will inform the Contractor of any other available DOC training resources. Annually thereafter the Contractor shall certify in writing to the COR that its employees, in performance of the contract, have completed annual refresher training as required by section 15.4 of the DOC IT Security Program Policy.
(g) Within 5 days of contract award, the Contractor shall provide the COR with signed acknowledgement of the provisions as contained in Commerce Acquisition Regulation (CAR), 1352.209-72, Restrictions Against Disclosures.
(h) The Contractor shall afford DOC, including the Office of Inspector General, access to the Contractor's and subcontractor's facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection, investigation, and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of DOC data or to the function of computer systems operated on behalf of DOC, and to preserve evidence of computer crime.

(i) For all Contractor-owned systems for which performance of the contract requires interconnection with a DOC network or that DOC data be stored or processed on them, the Contractor shall provide, implement, and maintain a System Accreditation Package in accordance with chapter 6 of the DOC IT Security Program Policy. Specifically, the Contractor shall:

(1) Within 14 days after contract award, the contractor shall submit for DOC approval a System Certification Work Plan, including project management information (at a minimum the tasks, resources, and milestones) for the certification effort, in accordance with DOC IT Security Program Policy, Section 6.5.2 and __N/A_____ The Certification Work Plan, approved by the COR, in consultation with the DOC IT Security Officer, or Agency/Bureau IT Security Manager/Officer, shall be incorporated as part of the contract and used by the COR to monitor performance of certification activities by the contractor of the system that will process DOC data or connect to DOC networks. Failure to submit and receive approval of the Certification Work Plan may result in termination of the contract.

(2) Upon approval, the Contractor shall follow the work plan schedule to complete system certification activities in accordance with DOC IT Security Program Policy section 6.2, and provide the COR with the completed System Security Plan and Certification Documentation Package portions of the System Accreditation Package for approval and system accreditation by an appointed DOC official.

(3) Upon receipt of the Security Assessment Report and Authorizing Official's written accreditation decision from the COR, the Contractor shall maintain the approved level of system security as documented in the Security Accreditation Package, and assist the COR in annual assessments of control effectiveness in accordance with DOC IT Security Program Policy, section 6.3.1.2.

(j) The Contractor shall incorporate this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of clause)

### 1.1.31 1352.245-70 GOVERNMENT FURNISHED PROPERTY (MAR 2000)

The Government will provide the following item(s) of Government property to the Contractor for use in the performance of this Contract. This property shall be used and maintained by the Contractor in accordance with provisions of the "Government Property" clause included in this contract.

**Government Furnished Property shall be indicated in individual task orders**

Item No. _____
Description _____
Quantity _____
Delivery Date _____

(End of clause)

### 1.1.32 1352.246-70 INSPECTION AND ACCEPTANCE (MAR 2000)

The Contracting Officer or the duly authorized representative will perform inspection and acceptance of supplies and services to be provided under this contract. Inspection and acceptance will be performed at:

**In accordance with individual task orders**

(End of clause)

### 1.1.33 1352.247-72 MARKING DELIVERABLES (MAR 2000)

The contract number shall be placed on or adjacent to all exterior mailing or shipping labels of deliverable items called for by the contract, except for reports.

Mark deliverables, except for reports, for:

**In accordance with individual task orders**

(End of clause)

### 1.1.34 1352.252-70 REGULATORY NOTICE (MAR 2000)

Contractors are advised that certain provisions and clauses identified with a Commerce Acquisition Regulation (CAR) notation for identification purposes have not yet been incorporated into the CAR. However, all of these items

are binding for this acquisition and will eventually be contained in the CAR at Part 13 of Title 48 of the Code of Federal Regulations.

(End of clause)

### 1.1.35 AUTHORIZED ORDERING OFFICERS

Task Orders shall be issued only by those individuals listed below. The Contractor shall not perform any services or provide any supplies unless ordered by one of the following authorized ordering officers:

Any duly appointed Contracting Officers of the Department of Commerce (DoC) and DoC Bureaus acting within the scope of their authority.

### 1.1.36 SCHEDULE OF DELIVERABLES (ACQUISITION ALERT 05-07 (SEPT 6, 2005))

Following is a schedule of deliverables under the basic contract, including administrative deliverables, required during the period of performance of this contract:

| Item | Description | Qty | Due Date | Deliver To |
|---|---|---|---|---|
| 1 | Monthly Progesss Status Reports | 1 | 15th Day of Every Month | COR |
| 2 | CAR 1352.228-70 Insurance Coverage | 1 | 15 Days ARO Award | COR/CO |
| 3 | Final QAP and Performance Matrix (Contract) | 1 | 30 Days ARO Award | COR/CO |
| 4 | QAP Incentive/Disincentive Plan (Contract), where appropriate | 1 | 30 Days ARO Award | COR/CO |
| 5 | Transition of Existing Contract Plan | 1 | As Specified by the Government | |
| 6 | QAP and Performance Matrix | 1 | As Specified in Delivery/Task Orders | |
| 7 | QAP Incentive/Disincentive Plan | 1 | As Specified in Delivery/Task Orders | |
| 8 | Acquisition Information Reports | 1 | As Specified in Delivery/Task Orders | |
| 9 | Final Report Self-Evaluation Performance | 1 | As Specified in Delivery/Task Orders | |
| 10 | Phase-In/Phase-Out Plan | 1 | As Specified in Delivery/Task Orders | |
| 11 | QASP and Performance Matrix | 1 | As Specified in Delivery/Task Orders | |
| 12 | Earned Value Mgmt System Report | 1 | As Specified in Delivery/Task Orders | |

Additional deliverables may be specified on individual task orders.

### 1.1.37 SECTION 508 ACCESSIBILITY

All electronic and information technology (EIT) procured through this Task Order must meet the applicable accessibility standards at 36 CFR 1194, unless an agency exception to this requirement exists. (36 CFR 1194 implements Section 508 of the Rehabilitation Act of 1973, as amended, and is viewable - PART 1194) at:

**URL-http://www.access-board.gov/sec508/508standards.htm.**

The following standards have been determined to be applicable to this contract:

_X_ 1194.21 Software applications and operating systems.
_X_ 1194.22 Web-based intranet and internet information and applications.
_X_ 1194.23 Telecommunications products.
_X_ 1194.24Video and multimedia products.
_X_ 1194.25Self contained, closed products.
_X_ 1194.26Desktop and portable computers.

The standards do not require *installation* of specific accessibility-related software or the attachment of an assistive technology device, but merely require that the EIT be compatible with such software and devices so that it can be made accessible if so required by the agency in the future.

The contractor shall indicate whether each product or service is compliant or noncompliant at the contract level and the task order level with the accessibility standards at 36 CFR 1194. Further, the proposal must indicate where full details of compliance can be found (e.g., vendor's website or other exact location).

### 1.1.38 OBSERVANCE OF LEGAL HOLIDAYS AND EXCUSED ABSENCE

(a) The Government hereby provides NOTICE and Contractor hereby acknowledges RECEIPT that Government personnel observe the listed days as holidays:

New Year's Day
Martin Luther King's Birthday
President's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas

(b) In addition to the days designated as holidays, the Government observes the following days:
Any other day designated by Federal Statute
Any other day designated by Executive Order
Any other day designated by the President's Proclamation

(c) It is understood and agreed between the Government and the Contractor that observance of such days by Government personnel shall not otherwise be a reason for an additional period of performance, or entitlement to compensation except as set forth within the contract. If a contractor believes that an unplanned absence impacted the price or period of performance they should notify the contracting officer of the changed condition and submit a claim for equitable adjustment (see FAR 52.212-4(d) and (f)).

(d) Nothing in this clause abrogates the rights and responsibilities of the parties relating to a stop work provisions as cited in other sections of this Contract.

### 1.1.39 FAIR OPPORTUNITY

All contract holders may be provided a fair opportunity to be considered on task or delivery orders unless exempted in accordance with applicable terms of the Federal Acquisition Regulation.

Delivery or Task Order requirements will be posted.

### 1.1.40 CONTRACTOR COMPETITION REFRESH POOL

The Government reserves the right to award additional contracts if it is determined to be in its best interest. The competition refresh process may be used to obtain a sufficient numbers of contractors for the work contemplated under the program. The Government shall have sole discretion to determine when and how many additional contracts shall be awarded. The Competition refresh will be announced in the designated government wide point of entry, Federal Business Opportunities. Contracts awarded under the competition refresh will share in the ceiling and period of performance established for the NOAALink program and such awards shall not result in changes to existing contracts.

### 1.1.41 INTERRELATIONSHIPS OF CONTRACTORS

The Department of Commerce (DoC) and/or other Government agencies may have entered into contractual agreements in order to provide information technology requirements separate from the work to be performed under this Contract. Further, DoC and/or other Government agencies may extend these existing agreements or enter into new agreements. The Contractor may be required to coordinate with other such Contractor(s) through the cognizant CO and/or designated representative in providing suitable, non-conflicting technical and/or management interfaces and in avoidance of duplication of effort.

### 1.1.42 NON-PERSONAL SERVICES

No personal services, as defined by subpart 37.104 of the FAR shall be performed under this contract. No Contractor employee will be directly supervised by the Government. All individual employee assignments, and daily

work direction, shall be given by the applicable employee supervisor. If the Contractor believes any Government action or communication has been given that would create a personal services relationship between the Government and any Contractor employee, the Contractor shall promptly notify the Contracting Officer of this communication or action.

The Contractor shall not perform any inherently governmental functions under this contract. No Contractor employee shall represent themselves to be a Government employee, agent, or representative. No Contractor employee shall state orally or in writing at any time that he or she is acting on behalf of the Government. In all communications with third parties in connection with this contract, Contractor employees shall identify themselves as Contractor employees and specify the name of the company for which they work. In all communications with other Government agencies, the Contractor employee shall state that he/she have no authority to in any way change the contract. If any Contractor believes that a communication is a direction to change its contract, he or she should notify the appropriate Contracting Officer and not carry out the direction until a clarification has been issued by the Contracting Officer.

The Contractor shall ensure that all of its employees working on this contract are informed of the substance of this clause. Nothing in this clause shall limit the Government's rights in any way under any other provision of the contract, including those related to the Government's right to inspect and accept the services to be performed under this contract. The substance of this clause shall be included in all subcontracts at any tier.

### 1.1.43 PROCUREMENT INTEGRITY

All Contractor personnel, and subcontractors who will be personally and substantially involved in the performance under this Contract which requires the Contractor to act on behalf of, or provide advice with respect to any phase of an agency procurement, as defined in FAR 3.104-4, shall execute and submit an "Employee/Contractor Non-Disclosure Agreement."

### 1.1.44 AUTHORIZATION OF GOVERNMENT PAID TRAVEL – FAR Clause 31.205-46(2)(i) (Delivery/Task Order Level, only)

(FILL-IN TO 52.212-4 ALT I and Required for Fixed Price)

Travel under this contract may be necessary in order to accomplish certain task(s) contained in this contract. Travel must be deemed necessary and authorized by the COTR in order to be paid for by the Government. Except for exceptional circumstances, travel will not be reimbursed at more than applicable rates cited in the Federal Travel Regulations, prescribed by the General Services Administration, for travel in the conterminous 48 United States or the Standardized Regulations (Government Civilians, Foreign Areas), Section 925, "Maximum Travel Per Diem Allowances for Foreign Areas," prescribed by the Department of State, for travel in areas not covered above.

### 1.1.45 TRANSITION OF EXISTING CONTRACTS

The Contractor shall prepare and publish jointly with the incumbent and the COTR, a mutually-agreeable detailed plan for tranisitioning current expiring contracts into NOAALink. This plan shall include a detailed milestone Transition schedule and a proposed date by which the NOAALink Contractor shall assume responsibility for total Task Order performance. The match-up of individual positions and responsibilities between outgoing and incoming personnel shall also be included. This plan shall be submitted by the NOAALink Contractor to the COTR for approval no later than thirty (30) days prior to current contracts expiration date.

### 1.1.46 PHASE-OUT CONTRACTS

Upon expiration of this contract, and award of a new contract, the incumbent NOAALink Contractor shall work with the successor, at the request of the Government, for a period of up to ninety (90) days after award to ensure an orderly transition from incumbent to successor Contractor without interruption to or loss of proficiency of services.

Phase-out services shall include the training of any successor Contractor by the incumbent successful NOAALink Contractor. The orderly transfer of work from the incumbent successful NOAALink Contractor to the successor shall be addressed during the phase-out period. The incumbent successful NOAALink Contractor bears the ultimate responsibility for the performance, under their respective contract, of all required Delivery/Task Order services during the phase-out period.

### 1.1.47 VIRUS-FREE CHECK AND CERTIFICATION OF DATA DELIVERED VIA ELECTRONIC MEDIA

All data delivered via electronic media (by disk, telecommunications transmission, or any other manner of electronic medium) shall be checked and certified as virus-free at data point of origin. Virus-free electronic media data certification shall be required to accompany all such delivered data identifying the specific certifying party, telephone number, data generation location, date certified, a list of each data item being certified, and the following certifying statement, all data provided for by this delivery is virus free.

### 1.1.48 OBTAINING ACCESS TO PROPRIETARY INFORMATION

Prior to gaining access to proprietary information of any other company (which may occur in performing advisory services for the Government), the Contractor shall enter into a specific written agreement with each such company to protect that company's information from unauthorized use or disclosure for as long as such information remains proprietary, and refrain from using the information for any purpose other than that for which it was furnished and required by Task Order performance. The Contractor shall provide the Government copies of all such agreements and await written approval by the CO to ensure that such agreements have been completed and properly executed prior to the contractor gaining access to proprietary information.

### 1.1.49 INVOICE INSTRUCTIONS

Invoice Submitted for Payment

The Contractor will invoice for all Delivery and Task Orders in accordance with FAR 52.212-4(g). 52.212-4(g)(iv) clarification for “Description” for Task Orders shall be the Labor Category. All Task Order invoices shall be submitted with support documentation needed to explain the charges on the invoice.

The Technical Point of Contact shall receive one original and one copy of the invoice with Optional Form 347 BACK and the Contracting Officer shall receive one copy of the invoice. Electronic Invoices will be acceptable.

For electronic invoices send them to the following e-mail addresses:

TBD

Purchase Card Payment

Payment is authorized via the Government Purchase Card (VISA) only with direction from the Point of Contact/Order Contact (P/OC).

For hard copy invoices send them to the following addresses:

P/OC:

TBD

Contract Administrator:

TBD

(End of Addendum)

**2.0 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (FEB 2009)**

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clause, which is incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).

_____ Alternate I (Aug 2007) of 52.222-50 (22 U.S.C.7104(g)).

(2) 52.233-3, Protest after Award (Aug 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Pub. L. 108-77, 108-78).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

XX (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sep 2006), with Alternate I (Oct 1995)(41 U.S.C. 253g and 10 U.S.C. 2402).

XX (2) 52.203-13, Contractor Code of Business Ethics and Conduct (Dec 2008) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)). (15 U.S.C. 657a).

___ (3) 52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999) (15 U.S.C. 657a).

___ (4) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (July 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

(5) [Reserved]

(6)

____ (i) 52.219-6, Notice of Total Small Business Set-Aside (June 2003) (15 U.S.C. 644).

____ (ii) Alternate I (Oct 1995) of 52.219-6.

____ (iii) Alternate II (Mar 2004) of 52.219-6.

(7)

_____ (i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).

_____(ii) Alternate I (Oct 1995) of 52.219-7.

_____(iii) Alternate II (Mar 2004) of 52.219-7.

XX (8) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)).

(9)

____ (i) 52.219-9, Small Business Subcontracting Plan (Apr 2008) (15 U.S.C. 637(d)(4).

_____ (ii) Alternate I (Oct 2001) of 52.219-9.

___ (iii) Alternate II (Oct 2001) of 52.219-9.

XX (10) 52.219-14, Limitations on Subcontracting (Dec 1996) (15 U.S.C.637(a)(14)).

XX (11) 52.219-16, Liquidated Damages--Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).

(12)

_____(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Oct 2008) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

_____(ii) Alternate I (June 2003) of 52.219-23.

____ (13) 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting (Apr 2008) (Pub. L.103-355, section 7102, and 10 U.S.C. 2323).

____ (14) 52.219-26, Small Disadvantaged Business Participation Program-Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___ (15) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004) (15 U.S.C. 657 f).

XX (16) 52.219-28, Post Award Small Business Program Rerepresentation (June 2007) (15 U.S.C. 632(a)(2)).

XX (17) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

XX (18) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Feb 2008) (E.O. 13126).

XX (19) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

XX (20) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

XX (21) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

XX (22) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).

XX (23) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

XX (24) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

___ (25) 52.222-54, Employment Eligibility Verification (Jan 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

(26)

_____ (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C.6962(c)(3)(A)(ii)).

_____(ii) Alternate I (May 2008) of 52.223-9 (42 U.S.C.6962(i)(2)(C)).

XX (27) 52.223-15, Energy Efficiency in Energy-Consuming Products (Dec 2007) (42 U.S.C. 8259b).

(28)

XX (i) 52.223-16, IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (Dec 2007) (E.O. 13423).

XX (ii) Alternate I (Dec 2007) of 52.223-16.

____ (29) 52.225-1, Buy American Act-Supplies (June 2003)(41 U.S.C.10a-10d).

(30)

_____ (i) 52.225-3, Buy American Act-Free Trade Agreements-Israeli Trade Act (Aug 2007) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, Pub. L. 108-77, 108-78, 108-286, 109-53 and 109-169.

_____(ii) Alternate I (Jan 2004) of 52.225-3.

_____(iii) Alternate II (Jan 2004) of 52.225-3.

XX (31) 52.225-5, Trade Agreements (Nov 2007) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

____(32) 52.225-13, Restrictions on Certain Foreign Purchases (Jun 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

____(33) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).

____(34) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

____ (35) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

____ (36) 52.232-30, Installment Payments for Commercial Items (Oct 1995)
(41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

XX (37) 52.232-33, Payment by Electronic Funds Transfer-Central Contractor Registration (Oct 2003) (31 U.S.C. 3332).

____(38) 52.232-34, Payment by Electronic Funds Transfer-Other than Central Contractor Registration (May 1999) (31 U.S.C. 3332).

____(39) 52.232-36, Payment by Third Party (May 1999)(31 U.S.C. 3332).

XX (40) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C.552a).

(41)

_____ (i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631).

_____ (ii) Alternate I (Apr 1984) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: **(To Be Determined on an Individual Delivery/Task Order Basis at such time if the Service Contract Act applies to a particular Delivery/Task Order then the appropriate action will occur in accordance with the clause below)**

_XX_ (1) 52.222-41, Service Contract Act of 1965 (Nov 2007)(41 U.S.C. 351, et seq.).

_XX_ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

_XX_ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act-Price Adjustment (Multiple Year and Option Contracts) (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

_XX_ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act-Price Adjustment (Feb 2002) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

_____ (5) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (Nov 2007) (41 U.S.C. 351, et seq.).

_____ (6) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements (Feb 2009) (41 U.S.C. 351, et seq.).

_____ (7) 52.237-11, Accepting and Dispensing of $1 Coin (Aug 2007) (31 U.S.C. 5112(p)(1)).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records-Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)

(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1)in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (DEC 2008) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(ii) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $550,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(iv) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

(v) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(vi) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O. 13201).

(vii) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).

(viii) 52.222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).

_____ Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(ix) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (Nov 2007) (41 U.S.C. 351, et seq.).

(x) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements (Feb 2009) (41 U.S.C. 351, et seq.).

(xi) 52.222-54, Employment Eligibility Verification (Jan 2009).

(xii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241 (b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of Clause)

**3.0 52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS (JUN 2008)**
(Reference 12.301)

NOTE: paragraph (a), second sentence, does not apply to this requirement.
Paragraph (c), 150 calendar days

**3.1 52.212-1A ADDENDUM TO 52.212-1**

**3.1.1 Instructions for Oral Presentations (if executed)**

Once a presentation date and time is confirmed, no rescheduling of presentations will be entertained, unless determined necessary by the Government.

The Offeror will be responsible for any audio visual equipment needed for their presentation. The Offeror shall provide twenty (20) paper copies of the oral presentation slides at the time of the oral presentation.

At the oral presentation, key personnel that will be assigned to the contract shall be present. A maximum of twelve (12) people may be in attendance. The Offeror's Program Manager shall attend and participate in the presentation. The Offeror, at least five days prior to its oral presentation, shall provide to the Contracting Officer a list of names, firms, and position titles of those persons participating in the presentation.

Each 1 hour presentation will be followed by a question and answer period regarding the Offeror's Proposal. The question and answer period will be a maximum of two hours in duration.

If oral presentations are excuted, the Government intends to videotape the presentation.

**3.1.2 General Proposal Preparation Instructions:**

All offerors are required to submit an offer that conforms to the solicitation. The Government may award without discussions with offerors (except clarifications as described in FAR 15.306(a)); therefore, the offeror's initial proposal should be clear and complete and contain the offeror's best terms and price. The Government reserves the right to conduct discussions.

Offers shall be submitted in one original and one CD-R. All documents on the CD-R shall be provided in a Portable Document Format (PDF) format.

**3.1.3 Proposal Format**

Proposals must be legible and prepared on standard 8 1/2 x 11 inch paper, double-spaced. The offeror shall use a type size no smaller than a 12-pitch font. The offer shall consist of three separately bound volumes: Volume I - Approach; Volume II – Past Performance, and Volume III – Business/Price Proposal. Volume I shall be limited to 150 pages. Any graphics, executive summaries, transmittal letters, attachments and charts used shall comply with the required paper size and shall be included in the page count limit. The packaging used in submitting the proposal must clearly identify the solicitation number and the name of the offeror. It is the responsibility of the offeror to ensure that the proposal is timely delivered.

Offerors shall submit their proposals to the following address:

U.S. Department of Commerce/NOAA
Acquisition & Grants Office
Attn: Anita R. Middleton
1325 E. West Highway, SSMC2, Rm 11220
Silver Spring, MD 20910-3283

Solicitation Number: DG133W-09-RP-0091

**Proposals are due no later than 01:00 p.m. eastern time on July 28, 2009.**

### 3.1.4 Volume I – Approach Factor:

**(a) Program:** The total page limit for this volume is 150 pages.

**Technical:** The offeror shall present its approach to perform the work and implement innovative solutions contemplated in the Performance Work Statement entitled NOAALink Program, and dated December 2008. Discuss the proposed approach to implementing the provisions of Information Technology Infrastructure Library version 3 (ITIL v3) and ISO 20000 best practices. No cost or price information shall be included in this section.

**Management:** The offeror shall present its approach to manage the work contemplated in the Performance Work Statement entitled NOAALink Program, and dated December 2008, Attachment A. Include an explanation of your organization, the reporting chain of command, specifically describing proposed lines of authority and means of communication within the offeror's firm and with team members and designated Government representatives. Offerors shall address key personnel, their proposed responsibilities, and time committment to the project. Describe the crafting of the team, the roles of each team member, why they are on the team and value that they will add to the team. Describe the processes, tools, and techniques to be used to manage and perform NOAALink. Describe the process by which work will be allocated among team members. Identify any perceived conflicts of interest and areas of risk in performance of this contract and how those conflicts and risks will be mitigated. Provide a Quality Assurance Plan and where appropriate include Incentive/Disincentive Plan that supports the Performance Work Statement, Attachment A, Quality Assurance Surveillance Plan and Responsibilities Matrix, Attachment B. No cost or price information shall be included in this section.

**(b) Sample Tasks:** The responses to these labor hour sample tasks are limited to 15 pages per task. These pages are part of the total volume limit of 150 pages. The offeror shall present its approach to manage and perform the work contemplated in the Performance Work Statement for each sample task. Include an explanation of your task order organization, the reporting chain of command, specifically describing proposed lines of authority and means of communication for the task order. Offerors shall address key personnel, their proposed responsibilities, and time committment to the task order. Describe the crafting of the team for the task order, the roles of each team member, why they are on the team for the task order and value that they will add to the task order. Describe the processes, tools, techniques and capabilities to be used to manage and perform the task order. Identify any perceived conflicts of interest and areas of risk in performance of this task order and how those conflicts and risks will be mitigated. No cost or price information shall be included in this section. The offeror will provide a response to the three sample tasks set forth in Attachments G through K to the solicitation. The response shall include the following:

(1) Description of possible areas to be investigated in researching the task;
(2) Description of the approach perform and manage the work, including a step-by-step procedure and methodology which would be used in accomplishing the task;
(3) Identification of the additional information that would be required to perform the task, if any;
(4) Work plan for implementation;
(5) Description of the expected results of the task order;
(6) Number of hours by labor category contemplated to be used; (to be set forth in Volume I and III)
(7) Unit price and total dollar amount for each labor category; (to be set forth in Volume III) and
(8) Any other proposed costs to perform the task (to be set forth in Volume III).
(9) Labor Hour ceiling price for each sample task (to be set forth in Volume III).

### 3.1.5 Volume II - Past Performance Factor:

The total page limit for this volume is twenty five pages. The offeror shall describe its past performance and prior experience based on five projects performed with high quality that set forth experience that is relevant to the work contemplated for NOAALink based on similarity, scope, magnitude, and complexity. No more than five references shall be submitted that have been performed within the last three years. At least three of the references shall be for contracts performed by the offeror, and up to two may be for contracts performed by the offeror's proposed subcontractors.

For each past performance reference, provide the following:

(1) Contract number;
(2) Dollar value of the contract;
(3) Name and phone number of the point of contact in the federal, state, local government or commercial entity for whom the contract was performed with knowledge of the offeror's performance;

(4) Description of the work performed;
(5) Names of subcontractors used, if any and a description of the extent of work performed by the subcontractors/partners;
(6) Number, type and severity of any quality, delivery or cost problems encountered in performing the contract; and
(7) Corrective action taken for problems encountered and the effectiveness of the corrective action.

The offeror shall complete the information in the Past Performance Form at Attachment F to the solicitation for each of the five references submitted in the proposal. The Government reserves the right to limit the number of references it contacts and to contact references or use sources other than those provided by the offeror to obtain information related to past performance and prior experience.

**3.1.6 Volume III – Business and Pricing Proposal:**

**Section 1-Business Documentation:** There is no page limit for this section. The offeror shall provide the following:

1) Standard Form 1449, Solicitation/Contract/Order for Commercial Items: Complete Blocks 12, 17a, 30a, 30b and 30c only. An official having the authority to contractually bind the offeror's company must sign the SF 1449 in accordance with the procedures prescribed in FAR 4.102.

2) Acknowledgement of Amendments: Acknowledge all solicitation amendments, if issued, using one of the methods set forth in Block 11 of the Standard Form 30.

3) Representations, Certifications and Other Statements of Offerors: Pursuant to FAR 52.212-3, if the offeror has completed the annual representations and certifications electronically at http://orca.bpn.gov, then the offeror shall complete only paragraph (b) the provision and include it in this section. If an offeror has not completed the annual representations and certifications electronically at the ORCA website, the offeror shall complete only paragraphs (c) through (m) of the provision and include it in this section.

4) The Offeror shall list any exceptions taken to the solicitation terms and conditions or any other requirements. At a minimum, responses shall indicate the specific solicitation reference (e.g., section/paragraph number of the requirement to which the exception is taken) and the reasons for the exception. If there are no exceptions to the solicitation, then the Offeror should state that there are "none."

**Section 2-Pricing:**

A) Labor

There is no page limit for this section. The offeror shall provide labor rates at price for all labor categories in the Labor Price Template at Attachments L and M to the solicitation and include it in this volume. Price shall include direct cost, indirect cost, and profit. Provide a narrative explanation of how prices were derived including the methodology to map to the generic labor categories, escalation rates and assumptions used in developing the labor category prices, and any discounts being offered. Hourly Labor Rates shall be binding for the duration of the contract.

B) Sample Task Pricing

There is no page limit for this section. The offeror shall provide labor categories and corresponding hours to perform the sample task. The offeror shall also provide fully burden hourly rates utilizing the prices contained in the Labor Price Template, Attachments L and M.

**3.1.7 52.222-24 PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION (FEB 1999) (NOTE: FOR PRIME AND ALL TEAM MEMBERS)**
(Reference 22.810)

**3.1.8 52.222-46 EVALUATION OF COMPENSATION FOR PROFESSIONAL EMPLOYEES (FEB 1993)**
(Reference 22.1103)

**3.1.9 52.232-38 SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFER (MAY 1999)**
(Reference 32.1110)

**3.1.10 52.237-10 IDENTIFICATION OF UNCOMPENSATED OVERTIME (OCT 1997)**
(Reference 37.115-3)

**3.1.11 1352.215-73 INQUIRIES (MAR 2000)**

Offerors must submit all questions concerning this solicitation in writing to the Contracting Officer. All questions should be posted to the NOAALink webpage under the Q&A Forum tab.

The NOAALink webpage is http://noaalink.noaa.gov.

(End of clause)

**3.1.12 52.216-1 TYPE OF CONTRACT (APR 1984)**

The Government contemplates award of multiple Indefinite Delivery/Indefinite Quantity Contracts with Firm Fixed Price, Labor Hour, and Time-and-Material Delivery or Task Orders.

(End of Provision)

**3.1.13 52.233-2 SERVICE OF PROTEST (SEP 2006)**

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from DoC/NOAA/Office of Acquisition and Grants 1325 E. West Hwy, Rm 11220, SSMC2 MailStop: OFA63 Silver Spring, MD 20910-3283 Attn: Anita Middleton

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of Provision)

**3.1.14 1352.233-71 SERVICE OF PROTESTS (MAR 2000)**

An agency protest may be filed with either (1) the Contracting Officer, or (2) at a level above the Contracting Officer, with the agency Protest Decision Authority. See 64 Fed. Reg. 16,651 (April 6, 1999) (Internet site: http://oamweb.osec.doc.gov/conops/reflib/alp1296.htm) for the procedures for filing agency protests at the level above the Contracting Officer (with the Protest Decision Authority). Agency protests filed with the Contracting Officer shall be sent to the following address: DoC/NOAA/Office of Acquisition and Grants 1325 E. West Hwy, Rm 11220, SSMC2 MailStop: OFA63 Silver Spring, MD 20910-3283 Attn: Anita Middleton If a protest is filed with either the Protest Decision Authority, or with the General Accounting Office (GAO), a complete copy of the protest (including all attachments) shall be served upon both the Contracting Officer and Contract Law Division of the Office of the General Counsel within one day of filing with the Protest Decision Authority or with GAO. Service upon the Contract Law Division shall be made, as follows:

U.S. Department of Commerce
Office of the General Counsel
Contract Law Division--Room 5893
Herbert C. Hoover Building
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230.
Attn: Mark Langstein, Esquire
FAX: (202) 482-5858

(End of clause)

**3.1.15 1352.242-71 POST-AWARD CONFERENCE (MAR 2000)**

A post-award conference with the successful offeror(s) may be required. If required, it will be scheduled and held within 10 days after the date of contract award. The conference will be held at at a date, time and location to be determined after award.

(End of clause)

### 3.1.16 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at http://www.arnet.gov

(End of Provision)

### 3.1.17 1352.252-71 REGULATORY NOTICE (MAR 2000)

Offerors are advised that certain provisions and clauses identified with a Commerce Acquisition Regulation (CAR) notation for identification purposes have not yet been incorporated into the CAR. However, all of these items are binding for this acquisition and will eventually be contained in the CAR at Part 13 of Title 48 of the Code of Federal Regulations.

(End of clause)

## 4.0 52.212-2 EVALUATION--COMMERCIAL ITEMS (JAN 1999)

(a) The Government may award multiple contracts resulting from this solicitation to the responsible offerors whose offers conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors shall be used to evaluate offers:

(1) Approach
- a. Program
  - Technical (How the work will be performed and how innovation will be implemented)
  - Management (How the work will be managed)
    - Quality Assurance Plan
    - Key Personnel
    - Processes, Tools, Methods and Capacity
- b. Sample Tasks
  - Technical (How the work will be performed)
  - Management (How the work will be managed)

(2) Past Performance
- Quality of prior performance
- Relevance of prior experience
  - Relevance of prior experience is similarity of the work performed previously to work to be performed in the future as described in the solicitation.

(3) Price
- Amount:
  - Evaluated sum of the total Labor Template amount and Sample Task Orders
- Realism
  - Reasonableness, balance and consistency of the price

The three factors are listed in descending order of importance. The subfactors to each factor are equal in importance.

(b) A written notice of award or acceptance of offer mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of Provision)

## 4.1 52.212-2A ADDENDUM TO 52.212-2

### 4.1.1 General Evaluation Information

Offerors who are awarded a contract as a result of RFP#: DG133W-09-RP-0074 for Strategic Program Management Services shall not be eligible for an award under this solicitation for CORE Services.

### 4.1.2 Number of Potential Awards

The Government contemplates one or more contract awards and reserves the right to make no award.

### 4.1.3 Competitive Range

If discussions are deemed necessary, the Source Selection Official will determine which offers are are in the competitive range. The competitive range shall be comprised of the most highly-rated proposals unless the range is further reduced for purposes of efficiency pursuant to FAR 15.306(c)(2). The initial number of offers considered as being within the competitive range may be reduced when an offer has been determined to no longer have a reasonable chance of being selected for award.

### 4.1.4 Discussions

Meaningful discussions will be held with offerors in the competitive range.

### 4.1.5 Responsibility

Prior to award of a contract, an Offeror must be determined responsible according in the standards in FAR Subpart 9.1, Responsible Prospective Contractors. To be determined responsible, a prospective Offeror must:

- Have adequate financial resources to perform the contract or have the ability to obtain them;
- Be able to comply with the required or proposed delivery or performance schedule;
- Have a satisfactory performance record;
- Have a satisfactory record of integrity and business ethics;
- Have the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them (including, as appropriate, such elements as production control procedures, property control systems, and quality assurance measures) applicable to materials to be produced or services to be performed by the prospective Offeror and Sub-Offerors;
- Have the necessary production, construction, and technical equipment and facilities, or the ability to obtain them; and
- Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

### 4.1.6 Rating Scheme

### 4.1.6.1 Non Price Factors:

The Government will rate offers using an adjectival system using the following adjectives:

a. Outstanding
b. Good
c. Satisfactory
d. Marginal
e. Unsatisfactory

**Adjectival Descriptions**

| Adjective | Performance/ Capability | Risk | Past Performance/ Questionnaire | Past Performance Risk |
|---|---|---|---|---|
| **Outstanding** | The proposal exceeds requirements and clearly demonstrates the Offeror's capability to deliver truly exceptional performance with no deficiency or weakness. | Very Low Risk in meeting the Government's requirements | Essentially no doubt exists that the offeror will successfully perform the required effort based on their performance record | Very Low: Very Little doubt of exists, based on the Offeror's performance record, that the Offeror can perform the proposed effort. |
| **Good** | The proposal meets requirement and has superior features with no deficiency or significant weakness. | Low Risk in meeting the Government's requirements | Little doubt exists that the offeror will successfully perform the required effort based on their performance record. | Low: Little doubt exists, based on the Offeror's performance record, that the Offeror can perform the proposed effort. |
| **Satisfactory** | The proposal is above average; the Offeror is capable of more than meeting performance requirements with no deficiency or significant weakness. | Low to Moderate Risk in meeting the Government's requirements | Some doubt exists that the offeror will successfully perform required effort based on their performance record. | Moderate: Some doubt exists, based on the Offeror's performance record, that the Offeror can perform the proposed effort. |
| **Marginal** | The proposal is minimally adequate; the Offeror is most likely able to meet performance requirements and | Moderate to High Risk in meeting the Government's requirements | Significant doubt exists that the offeror will successfully perform the required effort based on their performance | High: Significant doubt exists, based on the Offeror's performance record, that the Offeror |

| | | | | |
|---|---|---|---|---|
| | has deficiencies or significant weaknesses but is capable of improvement. | | record. | can perform the proposed effort. |
| **Unsatisfactory** | The proposal is inadequate; the Offeror cannot meet performance requirements and has many deficiencies. | Very High Risk in meeting the Government's requirements | It is extremely doubtful that the offeror will successfully perform the required effort based on their performance record. | Very High: Major doubt exists, based on the Offeror's performance record, that the Offeror can perform the proposed effort. |

#### 4.1.6.2 Price:

Proposed prices will be evaluated but not scored. The price evaluation will determine the evaluated amount based on the sum of the total labor template amount and sample task orders. The realism of the pricing will be based on reasonableness, balance and consistency of the price.

The price evaluation will be based on the evaluated price of the total labor proposed in the Labor Price Template plus the prices for the five labor hour sample task orders.

### 4.1.7 Basis for Award

This is a best value, competitive requirement. Award will be made to the offeror(s): whose offer conforms to the solicitation requirements; who is determined responsible in accordance with the Federal Acquisition Regulation (FAR) by possessing the financial and other capabilities to fulfill the requirements of the contract; and whose proposal is judged, by an integrated assessment of price and other evaluation factor(s) to be the most advantageous to the Government. The Government will use the best value trade-off process in determining which offer is in the best interest of the Government.

**5.0 52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (FEB 2009)**

An offeror shall complete only paragraph (b) of this provision if the offeror has completed the annual representations and certifications electronically at http://orca.bpn.gov. If an offeror has not completed the annual representations and certifications electronically at the ORCA website, the offeror shall complete only paragraphs (c) through (m) of this provision.

(a) Definitions. As used in this provision--

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service--

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

"Manufactured end product" means any end product in Federal Supply Classes (FSC) 1000-9999, except--

(1) FSC 5510, Lumber and Related Basic Wood Materials;

(2) Federal Supply Group (FSG) 87, Agricultural Supplies;

(3) FSG 88, Live Animals;

(4) FSG 89, Food and Related Consumables;

(5) FSC 9410, Crude Grades of Plant Materials;

(6) FSC 9430, Miscellaneous Crude Animal Products, Inedible;

(7) FSC 9440, Miscellaneous Crude Agricultural and Forestry Products;

(8) FSC 9610, Ores;

(9) FSC 9620, Minerals, Natural and Synthetic; and

(10) FSC 9630, Additive Metal Materials.

"Place of manufacture" means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

"Restricted business operations" means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person conducting the business can demonstrate--

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

(2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;

"Service-disabled veteran-owned small business concern"--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and size standards in this solicitation.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(b)

(1) Annual Representations and Certifications. Any changes provided by the offeror in paragraph (b)(2) of this provision do not automatically change the representations and certifications posted on the Online Representations and Certifications Application (ORCA) website.

(2) The offeror has completed the annual representations and certifications electronically via the ORCA website at http://orca.bpn.gov. After reviewing the ORCA database information, the offeror verifies by submission of this offer that the representations and certifications currently posted electronically at FAR 52.212-3, Offeror Representations and Certifications--Commercial Items, have been entered or updated in the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201), except for paragraphs /__/.

[Offeror to identify the applicable paragraphs at (c) through (m) of this provision that the offeror has completed for the purposes of this solicitation only, if any.]

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it /_/ is, /_/ is not a small business concern.

(2) Veteran-owned small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it /_/ is, /_/ is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.] The offeror represents as part of its offer that it /_/ is, /_/ is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, for general statistical purposes, that it /_/ is, /_/ is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it /_/ is, /_/ is not a women-owned small business concern.

NOTE: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) Women-owned business concern (other than small business concern). [Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it o is a women-owned business concern.

(7) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price: _____

(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. [Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]

(i) [Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the designated industry groups (DIGs).] The offeror represents as part of its offer that it /_/ is, /_/ is not an emerging small business.

(ii) [Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or designated industry groups (DIGs).] Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

| Number of Employees | Average Annual Gross Revenues |
|---|---|
| __ 50 or fewer | __ $1 million or less |
| __ 51-100 | __ $1,000,001-$2 million |
| __ 101-250 | __ $2,000,001-$3.5 million |
| __ 251-500 | __ $3,500,001-$5 million |
| __ 501-750 | __ $5,000,001-$10 million |
| __ 751-1,000 | __ $10,000,001-$17 million |

__ Over 1,000 __ Over $17 million

(9) [Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns, or FAR 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.]

(i) General. The offeror represents that either--

(A) It /_/ is, /_/ is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It /_/ has, /_/ has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) /_/ Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(9)(i) of this provisi on is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture:_____.]

(10) HUBZone small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It /_/ is, /_/ is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It /_/ is, /_/ is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Representations required to implement provisions of Executive Order 11246--

(1) Previous contracts and compliance. The offeror represents that--

(i) It /_/ has, /_/ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation; and

(ii) It /_/ has, /_/ has not filed all required compliance reports.

(2) "Affirmative Action Compliance." The offeror represents that--

(i) It /_/ has developed and has on file, /_/ has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Parts 60-1 and 60-2), or

(ii) It /_/ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed $100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(f) Buy American Act Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act-Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an

end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act-Supplies."

(2) Foreign End Products: [List as necessary]

| Line Item No. | Country of Origin |
|---|---|
| | |
| | |

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)

(1) Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate. (Applies only if the clause at FAR 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product and that for other than COTS items, the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "Bahrainian or Moroccan end product," "commercially available off-the-shelf (COTS) item," "component," "domestic end product," "end product," "foreign end product," "Free Trade Agreement Country," "Free Trade Agreement Country end product," "Israeli emd product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements-Israeli Trade Act."

(ii) The offeror certifies that the following supplies are Free Trade Agreement country end products (other than Bahrainian or Moroccan end products) or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

FREE TRADE AGREEMENT COUNTRY END PRODUCTS (OTHER THAN BAHRAINIAN OR MOROCCAN END PRODUCTS)OR ISRAELI END PRODUCTS:

| Line Item No. | Country of Origin |
|---|---|
| | |
| | |

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products, i.e., an end product that is not a COTS item and does not meet the component test in paragraph (2) of the definition of "domestic end product.".

Other Foreign End Products:

| Line Item No. | Country of Origin |
|---|---|
| | |
| | |

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(2) Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate I. If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

Canadian End Products:

| Line Item No. |
|---|
| |
| |

(3) Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate II. If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

Canadian or Israeli End Products:

| Line Item No. | Country of Origin |
|---|---|
| | |
| | |

(4) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made or designated country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made or designated country end products.

Other End Products:

| Line Item No. | Country of Origin |
|---|---|
| | |
| | |

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items covered by the WTO GPA, the Government will evaluate offers of U.S.-made or designated country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-ade or designated country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) Certification Regarding Responsibility Matters (Executive Order 12689)." (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) /_/ Are, /_/ are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(2) /_/ Have, /_/ have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property;

(3) /_/ Are, /_/ are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses enumerated in paragraph (h)(2) of this clause; and

(4) /_/ Have, /_/ have not, within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied.

(i) Taxes are considered delinquent if both of the following criteria apply:

(A) The tax liability is finally determined. The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(B) The taxpayer is delinquent in making payment. A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(ii) Examples.

(A) The taxpayer has received a statutory notice of deficiency, under I.R.C. §6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(B) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. §6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(C) The taxpayer has entered into an installment agreement pursuant to I.R.C. §6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(D) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. §362 (the Bankruptcy Code).

(i) Certification Regarding Knowledge of Child Labor for "Listed End Products (Executive Order 13126)."

(1) "Listed end products." _____

(2) "Certification."

/_/ (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

/_/ (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(j) Place of manufacture. (Does not apply unless the solicitation is predominantly for the acquisition of manufactured end products.) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly--

/_/ (1) In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or

/_/ (2) Outside the United States.

(k) Certificates regarding exemptions from the application of the Service Contract Act. (Certification by the offeror as to its compliance with respect to the contract also constitutes its certification as to compliance by its subcontractor if it subcontracts out the exempt services.)

_____ (1) Maintenance, calibration, or repair of certain equipment as described in FAR 22.1003-4(c)(1). The offeror /_/ does /_/ does not certify that--

(i) The items of equipment to be serviced under this contract are used regularly for other than Governmental purposes and are sold or traded by the offeror (or subcontractor in the case of an exempt subcontract) in substantial quantities to the general public in the course of normal business operations;

(ii) The services will be furnished at prices which are, or are based on, established catalog or market prices (see FAR 22.1003-4(c)(2)(ii)) for the maintenance, calibration, or repair of such equipment; and

(iii) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract will be the same as that used for these employees and equivalent employees servicing the same equipment of commercial customers.

_____ (2) Certain services as described in FAR 22.1003-4(d)(1). The offeror /_/ does /_/ does not certify that--

(i) The services under the contract are offered and sold regularly to non-Governmental customers, and are provided by the offeror (or subcontractor in the case of an exempt subcontract) to the general public in substantial quantities in the course of normal business operations;

(ii) The contract services will be furnished at prices that are, or are based on, established catalog or market prices (see FAR 22.1003-4(d)(2)(iii));

(iii) Each service employee who will perform the services under the contract will spend only a small portion of his or her time (a monthly average of less than 20 percent of the available hours on an annualized basis, or less than 20 percent of available hours during the contract period if the contract period is less than a month) servicing the Government contract; and

(iv) The compensation (wage and fringe benefits) plan for all service employees performing work under the contract is the same as that used for these employees and equivalent employees servicing commercial customers.

(3) If paragraph (k)(1) or (k)(2) of this clause applies--

(i) If the offeror does not certify to the conditions in paragraph (k)(1) or (k)(2) and the Contracting Officer did not attach a Service Contract Act wage determination to the solicitation, the offeror shall notify the Contracting Officer as soon as possible; and

(ii) The Contracting Officer may not make an award to the offeror if the offeror fails to execute the certification in paragraph (k)(1) or (k)(2) of this clause or to contact the Contracting Officer as required in paragraph (k)(3)(i) of this clause.

(l) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (l)(3) through (l)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

/_/ TIN: _____.

/_/ TIN has been applied for.

/_/ TIN is not required because:

/_/ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

/_/ Offeror is an agency or instrumentality of a foreign government;

/_/ Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

/_/ Sole proprietorship;

/_/ Partnership;

/_/ Corporate entity (not tax-exempt);

/_/ Corporate entity (tax-exempt);

/_/ Government entity (Federal, State, or local);

/_/ Foreign government;

/_/ International organization per 26 CFR 1.6049-4;

/_/ Other _____.

(5) Common parent.

/_/ Offeror is not owned or controlled by a common parent;

/_/ Name and TIN of common parent:

Name _____.

TIN _____.

# ATTACHMENT A

# PERFORMANCE WORK STATEMENT

# NOAALINK PROGRAM
# Where Business and IT Converge

DECEMBER 2008

## ATTACHMENT A: PERFORMANCE WORK STATEMENT (PWS)

NOAALINK
Where Business and IT Converge

### 0.0 INTRODUCTION

**0.1 Challenge.** The National Oceanic and Atmospheric Administration (NOAA) is constantly adopting improved means to manage and deliver data and information to citizens and businesses in the areas of weather and water forecasts, search and rescue, climate change, environmental images, coastal maps, and ecosystems management. NOAA's current IT environment, contracting, and governance practices, however, limits the organization's ability to readily leverage economies of scale and provide end-to-end visibility into IT operations.

**0.2 Solution.** To meet this challenge, the NOAA Office of the Chief Information Officer (OCIO) and Line Office OCIOs work closely with business partners throughout NOAA, the Department of Commerce, other government agencies, and industry to ensure the use of leading-edge technology to better meet these needs and resulting implications for national security. The NOAALink contracts contemplated will enable the IT organizations at NOAA to partner with industry with the goal of acquiring a broad range of cost-effective, enterprise-wide IT solutions to improve IT service delivery and support via the following goals:

Goals:

Goal 1: Establish secure, enterprise-wide IT standardized solutions
Goal 2: Enable the NOAA mission
Goal 3: Maximize agility and innovation in IT service delivery
Goal 4: Deliver cost-effective IT solutions
Goal 5: Foster strategic partnerships
Goal 6: Create effective IT governance

### 1.0 SCOPE

**1.1 Description.** NOAALink focuses both on enterprise- and service area-level requirements for IT products and services. The initiative leverages the potential of a total, interdependent system of NOAA capabilities, based upon five foundational pillars: 1) Build Strategic Alignment, 2) Develop IT Capabilities, 3) Leverage Resources, 4) Strengthen Strategic Partnerships, and 5) Organize for Continuous Improvement and Innovation. Within each pillar is embedded a series of strategic or enterprise-level IT requirements.

Flowing from these requirements is a series of IT service-area requirements grouped within five management components: 1) Strategic Management, 2) Customer Care, 3) Infrastructure Management, 4) Business Management, and 5) Information Security and Risk Management. Their purpose is to establish a standard framework for meeting NOAA’s mission needs. These requirements are supported by a strong set of contract management principles and practices that provide for continuous visibility into the activities of the procurement vehicle, use of an actionable catalog of service offerings and practical Service-Level Agreements (SLAs) for delivery of products and services, and effective contract transition planning and support.

NOAALink will employ the Federal Segment Architecture Methodology (FSAM). This methodology is a repeatable process in support of improving NOAA's mission execution and service delivery to stakeholders and business partners. The FSAM includes step by step guidance based on business-driven, results-oriented architecture. Within the context of NOAALink each of the FSAM process steps is important in the development of a complete and actionable segment architecture. In order for the segment architecture to be "actionable", it must include specific, measurable milestones and deliverables that, once achieved, will lead to the targeted performance improvements.

**1.2 Objective.** To achieve economies-of-scale, consistent standards, and comprehensive IT services to develop a secure, reliable, technically robust operating environment that supports NOAA’s mission, vision, and goals; leverage the potential for innovation that can originate through local agility; and ensure the

highest data quality for emergency management officials, decision makers, researchers, and the general public.

The requirements for this initiative are divided among five *Management Components,* whose purpose is to establish a standard framework for meeting NOAA mission, vision, and goals. These components, in turn, are supported by IT *Service Areas,* as shown below:

| Management Component | Service Areas |
|---|---|
| Strategic Management | Decision Support<br>Enterprise Architecture Services<br>Project Management Services |
| Customer Care | End-User Service Center Services<br>Desktop Management Services<br>Communication and Collaboration Services |
| Infrastructure Management | Data and Voice Network Services<br>Data Center Services<br>Application Management Services |
| Business Management | Strategic Sourcing Catalog Services<br>Training/Professional/Consulting Services<br>Special Projects |
| Information Security and Risk Management | Security Services<br>Continuity of Operations and Disaster Recovery |

The FSAM supports all of the five (5) management component area's requirements. The NOAALink management areas map to three segment types as defined in the OMB FEA Practice Guidance: core mission area, business service, and enterprise service segments.

## 2.0 LIST OF TASKS

**2.1 IT Governance.** NOAALink will provide an IT Governance Framework for ensuring that service level agreements are monitored and measured across NOAA's information enterprise. This framework is critical for ensuring that all IT Service Management Processes, Operational Level Agreements, and underpinning contracts and task orders are structured to meet the needs of the organization. In addition the IT Governance Framework will ensure that quality and continuous improvement are integral part of operations and provide value to NOAALink customers. This framework is necessary to initiate, sustain, and continually improve the NOAALink services provided by offerors. Therefore, it is essential that offerors responding to this solicitation work collectively to continually improve IT Governance and IT Services. NOAALink is fundamental to achieving the following organizational objectives:

- Provide clear definition of service objectives and performance criteria
- Develop linkage of IT service specifications to the performance of the IT infrastructure
- Define operational performance requirements
- Map services to technology
- Possess the ability to model the effect of changes in technology to changes in business requirements
- Develop cost models to evaluate Return on Investment (ROI) and cost reduction strategies
- Comply with Federal regulations and DOC and NOAA policy
- Understand the needs of NOAALink's customers, the broader DOC organization, and other stakeholders

The Framework will take into account strategy, design, operation, and continuous improvement of IT services. In addition, it will leverage customer feed back and service level targets to ensure that NOAA Link is delivering high quality services and products.

**2.2. Customer Care**. IT products and services that increase customer efficiency and effectiveness in support of NOAA's mission, vision, and goals. Customer Care includes the ability to offer products and services that result in proactive and coordinated responses to mission challenges. For NOAA, Customer Care also includes the ability to provide a standard, consistently high level of service throughout the enterprise and to continuously increase the knowledge of customers in their use of IT

and its application to mission effectiveness. Three service areas comprise Customer Care: *End-User Service Center Services, Desktop Management Services,* and *Communication and Collaboration Services.*

2.2.1 End-User Service Center

End-User Service Center (EUSC) requirements for NOAA fall into five major functions, whose collective aim is to provide end-to-end visibility into customer issues across the enterprise.

2.2.2 Desktop Management Services

Desktop management services facilitate delivery of desktop and laptop computing to the end-user. NOAA's Desktop Management Services provisions a suite of services to support hardware purchase/lease and licensing for all desktop, end-user devices, enterprise licensed software, productivity software and infrastructure. Service requirements traditionally include providing support and services for operations and administration of all NOAA end-user devices; performing Installations, Moves, Adds and Changes (IMAC); performing operational monitoring of desktop and end-uses services; providing Tier 2 & 3 technical support; delivering break/fix services; image configuration and management; supporting end-user productivity software and planning; and managing approved projects.

2.2.3 Communication and Collaboration Services

The NOAA CIO community supports a geographically-dispersed organization of users across the nation and in remote locations. NOAA needs effective tools and technologies for virtual collaboration to support such a decentralized organization and seeks to provide an optimal set of capabilities to best meet its business users' requirements.

Collaborative computing provides NOAA an opportunity for individuals and groups to share and relay information in such a way that cultivates team review and interaction in the accomplishment of duties and attainment of consensus. It is driven by demands of NOAA's customers whose needs cut across the organization and the effects of technological innovation allowing for greater interaction, adaptability to existing systems, and knowledge sharing across NOAA and larger communities-of-practice. Collaborative computing at NOAA also includes requirements for special initiatives, such as e-mail consolidation and document/records management.

2.3 **Infrastructure Management**. NOAALink's business service segment includes common or shared business services supporting the core mission areas. Business services are defined by the NOAA business model and include the foundational (infrastructure) mechanisms and back office services used to achieve NOAA's mission objectives. Further, these "back room" IT products and services support creation of a total/horizontal information architecture. These services often include value-added telecommunications network services, management and provision of large-scale computing (such as mainframes), the management of shared customer databases, and research and development expertise aimed at identifying useful emerging technologies to the organization. NOAA also has an additional layer of shared and standard infrastructure applications used by all organizational components. These include enterprise-wide applications that support shared services in functional and support areas, such as accounting, human resources management, and budgeting. Three service areas comprise *Infrastructure Management: Data and Voice Network Services, Data Center Services,* and *Applications Management Services.* A prime focus of Infrastructure Management at NOAA is to achieve economies-of-scale by consolidating acquisition of hardware, software, and IT services. The cost performance metrics and benchmark data from the NOAA IT infrastructure Optimization Plan, 2008-2012/IT Infrastructure Line of Business (ITILoB) can be used to identify potential cost savings/cost avoidance opportunities associated with business process efficiencies or operational improvements in providing IT infrastructure services. The impact of planned investments can be documented in the NOAALink business management component, customer care, and information security and risk management to strategic opportunities alignment matrix. The business and information analysis provide a synchronized and cohesive set of recommendations.

2.3.1 Data and Voice Network Services

Data and Voice Network requirements traditionally include providing advanced services for Enterprise Data Network (LAN/WAN), Network Operations Center, Remote Access, Voice/PBX/VoIP and Installs, Moves, Adds, and Changes (IMACs). NOAA seeks to establish a defined process for introducing and supporting emerging network technologies and indicate capabilities to provide strategic value to NOAA.

Currently, NOAA's voice telecommunications infrastructure supports a dispersed organization of users across the nation using a mix of telephone equipment, technologies and local service providers. In order to better serve such a decentralized organization, NOAA needs effective tools and technologies to establish a standardized mechanism and approach to transition to an integrated end-to-end voice network with embedded business intelligence, centralized network management and operation support.

Requirements under Voice/VoIP include providing Voice/VoIP support or services to meet NOAA business needs for highly available, scalable, reliable and secure (unclassified) Voice Communications Services. NOAA requires services that can leverage operational scale and best practices to achieve optimum price performance for its users and consolidate voice networks to seamlessly integrate voice communications within NOAA.

Enterprise data network services include the provisioning (capacity planning and performance reporting) and management of a reliable, scalable, responsive and secure high-speed network infrastructure to all NOAA locations. The provision of Quality of Service (QoS) capabilities will increase the availability of critical network applications. NOAA seeks to standardize networking processes as well as consolidate networks when possible to enable a consistent user experience across NOAA.

2.3.2 Data Center Services

The NOAA Data Center environment traditionally includes the administration and management of servers and storage, such as: Mainframe, Unix-based, Windows-based systems and associated data storage and backup services and supporting systems software (e.g., operating systems, utilities, schedulers) from a centralized location. These environments support NOAA's business applications/databases, file/print services, e-mail services (including smart phone devices) and other NOAA specific infrastructure-related functions. NOAALink supports the drive to make federal buildings more energy-efficient by adhering to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification or EPA's Energy Star guidelines for government leased space.

2.3.3 Application Management Services

Application management services requirements traditionally include the activities required to provide both infrastructure and mission support applications life-cycle services. These services include Application Strategy, Architecture and Planning, Functional and Technical Design, Database Design/Development, Programming/Development, Integration, Testing and Implementation, Training and Documentation, Application and Web Maintenance and Web Design and Content Management.

2.4 **Business Management**. NOAALink is based on a business-driven, results-oriented architecture. The Business Management Component supports all three segment types as defined in the OMB FEA Practice Guidance: core mission area, business service, and enterprise service segments. The Business Management Component also refers to cross-cutting capabilities in support of strategic, customer, and infrastructure management. The Business Management Component drives the four component areas and the associated service areas. The core service areas are synchronized with/through: *Strategic Sourcing Catalog Services; Training, Professional,* and *Consulting Services; and Special Projects*. A NOAALink business service segment includes common or shared business services supporting the core mission areas.

2.3.1 Business Architecture

Key requirements include those supporting the business architecture (FSAM), order processing and catalog services; hardware and software procurement; project, program, and portfolio management training services; IT training; technical services and consulting; and support to special projects and requirements in support of the business architecture and those as yet undefined.

2.3.2 Federal Segment Architecture Methodology (FSAM)

NOAALink will employ the Federal Segment Architecture Methodology (FSAM). This methodology is a repeatable process in support of improving NOAA's mission execution and service delivery to stakeholders and business partners. The FSAM includes step by step guidance based on business-driven, results-oriented architecture. The Integrated Acquisition Environment (IAE) is a Presidential E-Gov initiative managed by the US General Services Administration. Its purpose is to simplify, unify and streamline the complex federal acquisition process for government buyers and sellers. The business architecture provides a synchronized and cohesive set of sequencing and transition plans. The outcome is a series of validated implementation recommendations supported by holistic analysis of segment business, data, technology, systems, and service components.

2.3.3 Strategic Sourcing Catalog Services

NOAA CIOs and Line Offices seek to evolve requests for services into an actionable, enterprise-wide catalog of common service offerings. A service catalog is designed to: 1) make better use of the organizations assets, and 2) deliver value to business customers and end-users. This encompasses the effective acquisition of hardware, software, and other services. A service/strategic sourcing catalog will provide a means to:

**a.** Define and describe the capabilities provided by the NOAA OCIO organizations,

**b.** Automate IT products and service requests and order fulfillment processes, electronic invoicing, and

**c.** Provide a governing function to ensure IT services are designed, delivered, and audited against key, agreed-upon terms, conditions, and controls (e.g., entitlement, support, authorization, control, costing, charging, and strategic management).

The overarching aim for the IT Strategic Sourcing Catalog at NOAA is to support the transformation of IT from a technology to customer-centric configuration and to ensure IT supports business alignment and the holistic management of assets and information.

2.3.4 Training, Professional, and Consulting Services

The purpose of Training, Professional, and Consulting Services is to strengthen workforce capabilities in such areas as:

a. IT and project, program, and portfolio management;
b. Collaboration tools; and
c. Software application development.

This service area also supports the training implications inherent in special projects, such as enterprise e-mail system, enterprise active directory, and document and records management efforts.

Training support activities will focus around the design, development and delivery of training programs for internal and external stakeholders, selection of appropriate delivery media, as well as delivery of presentations and demonstrations. Services will be organized to maintain strong leadership support, leverage the capabilities of other NOAA training programs, collaborate with other organizations within NOAA, and provide participants the capabilities to deliver tangible value to their customers. Implementation proceeds along two distinct yet interrelated tracks:

**Track 1: Training Programs -** Training programs are being developed to support foundational, intermediate, and advanced levels of learning. Refresher courses will be provided to participants with previous project management training. Instructor-led training will support participants with limited experience as well as those who are interested in further improving their skills. On-line training will support participants interested in pursuing individual learning opportunities.

**Track 2: Planned Change -** Training is used to support implementation of NOAA OCIOs strategic direction. "Just-in-time" training will be provided to assist participants in validating strategic direction and in developing supporting portfolios, programs, and projects.

Lessons learned from ongoing developmental activities, two-way communications with OCIO and other NOAA stakeholders, and implementation of the overall IT Strategic Plan will be used to continuously improve training programs, products, and services. Evaluation of training services will focus on whether participants actually applied training concepts once they left the training environment, whether the training resulted in perceptible improvements in job performance, and whether, over time, there were sufficient performance improvements to demonstrate an overall improvement in organizational capabilities.

2.3.5 Special Project Services

From time to time, NOAA may seek to establish special projects. The scope of such projects may include planning, support, or execution of customized IT initiatives. These projects may be sponsored by NOAA CIO and/or NOAA Line Office CIOs and may have enterprise-wide or Line Office-specific scope. NOAA consistently seeks new avenues to further its mission. A vehicle must be in place to allow NOAA the flexibility to address requirements for projects of a special nature, or those not foreseen in earlier planning cycles, due to evolving mission influences. Examples of technologies that are being addressed and will be addressed soon are: HSPD12/Identity Management (possible implications with Active Directory implementation) and Geographical/Geospatial Informational Systems.

2.5 **Information Security and Risk Management**. Requirements in support of Continuity of Operations, Disaster Recovery, and Security Planning (including information assurance).

2.4.1 Security Services

Security service requirements traditionally include providing support for security planning and information assurance. This may include support for development, administration, and ongoing execution of a security program for all NOAA facilities and systems. Security services must be planned, developed, implemented, tested, and executed in accordance with all the Service Areas included in this requirements document. Specific areas for support include physical security, security firewall, security intrusion detection, and security penetration. Reference to and compliance with all current and future Federal policies, guidelines, and recommendations when offering IT security solutions, services, software, and or hardware is required. Effective IT security stands on security policies and architecture, security infrastructure, and security administration:

**a. Security Administration** - Effective execution and implementation of security planning and policy development enables satisfactory returns on enterprise investment in security activities. Sound security administration focuses on operational technologies and best practices that maintain secure access to applications and resources and on ensuring the integrity of system definitions and configurations.

**b. Security Risk, Organization, Policies and Architecture** - Effective IT security risk management identifies exposures and potential costs so that security policies, and an overall security architecture, can be developed to minimize these exposures and costs. Security policies should also enable an enterprise to take the greatest amount of risk necessary to support business requirements. Effective security risk management is not fully enabled until security policies and architectures are implemented and supported by

effective security governance model. Enterprises must determine the aspects of security to be centralized, the implementation of regional or departmental aspects of security, the methods to obtain funding, and the ways IS organizations and business units will be accountable for security.

**c. Security Infrastructure** - Security infrastructure is made up of the tools, technologies and tactics that are deployed to protect the network perimeter and internal resources. Traditional security infrastructure focuses on hardening the perimeter, but internal resources are now increasingly exposed to external access by outward-facing applications require a hardened interior and a layered approach to security.

2.4.2 Continuity of Operations and Disaster Recovery Services

Disaster recovery and continuity of operations planning addresses the planning for and managing disasters, crises, and contingencies by preventing them whenever possible and managing their effects when they cannot be prevented by implementing documented recovery procedures to allow for resumption of business operations as expediently and as economically as required. Managing these threats to mission effectiveness requires planning to increase the rapidity and effectiveness of NOAA program and project teams to deal with these conditions if, and when, they occur. The segment governance structure must align with existing agency governance processes including the management of the overall enterprise architecture, capital planning process, security, risk, and privacy management processes, human capital management process, quality assurance processes, and the systems development lifecycle processes.

## 3.0 REQUIREMENTS

### 3.1 Component 2: Customer Care

#### 3.1.1 End-User Service Center Services

**3.1.1.1** **<u>Objectives</u>** - The initial key objectives for End-User Service Center Services are to:

(a) Improve IT customer service and incident resolution;
(b) Establish an effective SPOC IT support and services to all users in accordance with agreed-upon performance standards;
(c) Provide timely and accurate initial assessments, root-cause analysis, and consistent incident and problem management; and
(d) Improve NOAA efficiency and effectiveness by adopting provider-leveraged knowledge data-bases and best practices in reporting critical information to customers (e.g., usage, logging, tracking, resolving of IT incidents and service requests)

**3.1.1.2** **<u>Requirements</u>** – Key requirements include:

(a) Manage service requests from inception to closure;
(b) Provide information to Line Offices and other stakeholders on areas of improvement, the need for policy, or technological/process recommendations for further study by the responsible owner of the technology or process;
(c) Provide an SPOC end-user service capability, such as:

i. Support for logging, tracking, resolution and reporting of Service Desk incidents and service requests for all NOAA supported environments; and
ii. Call-in access via a toll-free number for all Service Desk services described in this document and for all IT service areas and NOAA locations.

(d) Develop the capability for effective, systematic incident management, such as:

i. Providing services associated with end-to-end incident management processes including escalation to Tier 2 and Tier 3 specialists through a defined process including NOAA personnel, third parties, such as hardware and software suppliers, other third party service providers, as well as NOAA internal technical support resources;

ii. Developing, documenting, and maintaining incident management procedures, including procedures to receive and respond to NOAA service request calls according to defined prioritization and resolution targets that meet NOAA requirements and adhere to NOAA policies;
iii. Providing Tier 0 or self-help services and, potentially, the provisioning of self-correcting technologies; and
iv. Contributing to the knowledge management activities of NOAA by logging service desk problem solutions in a resolution knowledge database which is readily available for queries by end-users for self-help.
v. Provide services associated with managing, maintaining, and troubleshooting devices and soft-ware remotely over the network to minimize the need to dispatch technical personnel for incident resolution.
vi. Develop and implement a tool to support proactive responses to customer/end-user issues;

(e) Provide planning, analysis and reporting capabilities, such as:

i. Services associated with providing NOAA business users the most appropriate and effective level of service desk performance through ongoing planning and analysis. This includes identifying and recommending a help desk solution that best meets NOAA business needs and service level expectations.
ii. Data to meet NOAA's information and analysis needs that include custom and standard reports to assess the overall performance of EUSC services.

**3.1.1.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) EUSC will have access to a call tree database for Tier 2 and Tier 3 escalation that will be updated regularly;
(b) Participating offices will use a common desktop environment (FDCC);
(c) Participating offices will use a common network environment, such as the Windows 2003 Domain, so access may be granted to the EUSC;
(d) NOAAnet will be implemented so that all participating offices will be accessible to the EUSC incident reporting system;
(e) EUSC support costs will be calculated per request and time taken to close request;
(f) EUSC will have access to end-users' system configuration using an enterprise configuration management (CM) tool.

**3.2.1** **Desktop Management Services**

**3.2.1.1** **Objectives** - The initial key objectives of Desktop Management Services are to:

(a) Sustain end-user satisfaction during transitional periods with increasing improvements during operational phases;
(b) Reduce downtime or increase in end-user productivity through use of desktop management best practices;
(c) Implement best practice asset management tools and methodologies;
(d) Support business initiatives within the NOAA client constituency base; and
(e) Demonstrate yearly improvements in desktop TCO.

**3.2.1.2** **Requirements** – Key requirements include:

(a) Provide operational and administrative services, such as:

i. Providing services associated with the day-to-day management of the installed desktop and end-user hardware and software. Hardware in scope includes: desktops, laptops, PDAs, printers (local and networked), scanners, monitors and data storage devices (e.g., hard drives, CD/DVD).
ii. Recommending services and standards that can optimally support the NOAA desk-top and end-user business requirements and platform standards.

iii. Deploying and managing desktop and laptop hardware and software (e.g., operating system, personal productivity and office automation software and services) and network-attached peripherals (e.g., printers, copiers, scanners and fax devices).
iv. Deploying centrally administered systems management services to minimize the complexity of the desktop environment, simplify management and administration, automate largely manual and loosely defined processes, and maximize user uptime.
v. Develop the planning and implementation to effectively consolidate the NOAA Help Desks.

(b) Provide data backup, storage, and recovery services, such as:

i. Maintaining the current baseline and hardware, software and staff resources necessary to support NOAA-specified requirements for providing end-users with data storage and backup of client end-user computing devices.
ii. Developing, in the long-term, consistent and dependable backup services that align to business needs.

(c) Provide Tier 0/1 service desk operations, such as:

i. Providing Tier 0/1 service desk support to all users within NOAA.
ii. Equipping NOAA with the situational awareness and the ability to manage information and problems affecting end-to-end performance through the use of automated tools and methodologies.

(d) Provide Tier 2 and 3 hardware and software support, such as:

i. Answering complex technical questions regarding the use of personal computer hardware and software.
ii. Providing incident and problem resolution to standard end-user hardware and the suite of desktop software products.
iii. Providing well-developed technical resources fully capable of handling a variety of complex desktop support problems.
iv. Implement solutions for on-site support to users in problem-solving activities.

(e) Provide for effective installations, moves, additions, and changes (IMAC), such as:

i. Providing on-site and remote support for IMACs across NOAA;
ii. Providing services associated with providing routine installations, relocations, upgrades and disposals of hardware and software;
iii. Building, configuring, and testing systems in accordance with the standard hardware con-figuration(s) and software Image and in accordance with the procedures and specific service request;
iv. Performing hardware and software IMACs and re-installations in accordance with specific service request, procedures and other application policies (for example, security policies); and
v. Capturing all IMACs in the configuration management database (CMDB).

(f) Develop and implement end-user productivity software, such as:

i. Providing services and the IT resources necessary to support NOAA-certified standard business productivity software including personal productivity and office applications services (in accordance with NOAA policies) and other basic IT resources necessary to meet the user requirement for performing typical office and business functions using commercially developed applications and office suites.
ii. Evaluating and recommending appropriate application virtualization solutions to simplify the NOAA standard desktop environment, improve security, reduce the

amount of time to deploy applications enterprise-wide, and reduce total cost of ownership;

iii. Developing an effective capability for image configuration and management, such as provide image management services and work with NOAA to standardize NOAA image(s);
iv. Evaluating and recommending standards and migration strategies to reduce/minimize the number of desktop images supported and speed the deployment of applications across NOAA;
v. Developing standards, processes, procedures, and automated mechanisms for the reliable, consistent, and timely deployment and update of applications and operating system images;
vi. Evaluating and testing new applications and software versions to ensure compatibility with NOAA standards;
vii. Providing software inventory management services and application usage tracking; and
viii. Collecting and testing operating system and application program updates and security patches against NOAA image baselines and providing processes for integrating updates and patches into current image baselines.
ix. Provide license compliance validation and tracking services;

(g) Implement an asset management system to provide insight and assistance into enterprise assets and support incident and problem management, tracking asset movement and changes, and in-creasing security measures. Additional features include:

i. Providing the capability to directly input data into an asset management system to affix and remove tags, to certify removal of information, and to properly dispose of retired assets;
ii. Implementing end-to-end management through tools and processes and show compliance to architectural standards and NOAA policies;
iii. Refreshing, maintaining, and protecting asset information through each phase of the product/service life including disposal or end-of-contract;
iv. Integrating asset management with configuration management and the EUSC to provide optimal asset management support services; and
v. Providing the capability to reconcile managed-desktop inventories with the NOAA property management system of record.

**3.2.1.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) A NOAA image is defined as the set of components that comprise the suite of software programs used to build a NOAA-defined standard end-user device image including operating system soft-ware, office productivity and messaging software, database software, security tools, remote connectivity software and remote management and deployment tools;
(b) Help desk consolidation begins with NOAA HQ (Silver Spring, MD) service desks and then expands incrementally to other NOAA regional and field offices;
(c) The service desk is reachable via multiple alternative communications channels including voice messages, e-mail and the intranet.
(d) Desktop support services offered under this contract maximize the productivity of the desktop user by maximizing desktop operational availability, intuitiveness, and simplicity of operation.
(e) Desktop support services offered under this contract optimize flexibility of choices available to the desktop user against efficiencies to be gained by standardization of hardware, software and procedures.
(f) Sufficient choices of hardware configurations, applications and operating systems are provided that most effectively meet NOAA's operational and administrative mission, while at the same time reaping the benefits and efficiencies to be gained through standardization of software and hardware components.
(g) NOAA operations depend on desktop capabilities which are used in highly distributed geographic areas, including all 50 U.S. states and protectorates, as well as countries across the globe and on the high seas. Services provided under this contract are available across these geographic areas.

(h) NOAA information and services are critical to decision makers in Federal, State and Local governments. The protection of life and property mission requires high reliability and availability of desktop services on a 24x7 basis to support this mission. Desktop services provided under this contract are capable of real-time desktop support to users having these critical mission assignments.

**3.3.1 Communication and Collaboration Services**

**3.3.1.1** **Objectives** - The initial key objectives of Communication and Collaboration Services are to:

(a) Support development of a strategic approach to collaboration with the aim of ensuring employees engage in richer collaborative interactions, such as dynamic shared workspaces, social networks or ad hoc communities-of-practice.
(b) Ensure collaborative tools and technologies deliver business value and align with NOAA's mission, vision, and strategic priorities.
(c) Extend collaboration external to NOAA to leverage insights, best practices, and capabilities across governmental, business, scientific, and academic communities.
(d) Evolve a comprehensive, mutually reinforcing collaborative computing environment whose components include, but are not limited to:

i. Communication
ii. Knowledge Sharing
iii. Content Development
iv. Data Collection
v. Planning
vi. Monitoring and Reporting
vii. Education and Support

(e) Assess and build use cases that:

i. Identify how NOAA might use video/web conferencing.
ii. Quantify the degree of interactive collaboration, degree of ad hoc scheduling, requirements for thin client, requirements for dynamic video support, and/or degree of speaker control.
iii. Leverage use of consumer technology to support NOAA's use of collaborative tools to ensure user-friendly on-site applications and access that closely mimic the natural collaboration of face-to-face meetings augmenting the level of emotional connectedness between users.
iv. Ensure the design of a collaborative network based on reliability requirements to enable a successful implementation of IP Telephony (IPT)
v. Budget for the factors associated with network reliability – high –availability WANS, uninterrupted power, branch survivability, security, server redundancy and scalability.

**3.3.1.2** **Requirements** – Key requirements include:

(a) Develop a *platform* for sharing applications in the Internet environment that will facilitate easy data sharing, has excellent scalability, provides for low TCO for end-users, permits adaptability to evolving NOAA priorities, and is independent of the existing tools to create content.
(b) Develop the capability to integrate real-time collaboration tools (e.g., instant messaging and videoconferencing) with asynchronous tools, such as e-mail and business processes.
(c) Develop the capability for Video Broadcast with Voice Teleconferencing allowing NOAA personnel to broadcast either live or recorded video presentations to a geographically-distributed audience. The presenter will have the ability to optionally allow interactive voice teleconferencing in order to receive and respond to audience feedback.
(d) Develop the capability to conduct virtual meetings allowing NOAA personnel to arrange virtual, web-based meetings where each participant is located in a separate physical facility. All participants are visible to each other and are able to hold discussions in a manner which approximates face-to-face communication.

(e) Develop the capability for collaboration web portals allowing groups of internal and external NOAA constituents (collaboration group) to collaborate using an authenticated website that supports document mark-up and development, workflow automation, calendaring, contact lists, threaded discussions and a variety of synchronous and asynchronous communications. This capability will allow a collaboration group to work collectively from PCs located in geographically-distributed facilities.

(f) Develop a knowledge repository capability to allow NOAA personnel, in distributed locations, who share similar roles and responsibilities, to record and share best practices and expertise and that permits effective use of:

i. Search engines
ii. Discussion Forums
iii. Knowledge Communities
iv. Bulletin Boards, and
v. List Services.

(g) Develop effective planning tools enabling more effective use of:

i. Project, Task, and Action Tracking,
ii. White Boarding, and
iii. Brainstorming.

(h) Develop advanced capabilities in content development, such as:

iv. Document Collaboration,
v. Publication and Presentation, and
vi. Archival and Storage.

(i) Develop the capability for more effective data collection, integration, and analysis for such requirements as:

i. Form and Template Development
ii. Data Calls,
iii. Surveys and Feedback, and
iv. Polling.

(j) Support implementation of a consolidated, enterprise-wide email system based on the Department of Commerce (DOC) standard for email and calendaring. The system will be designed to integrate with DOC's email system.

(k) Support implementation of an enterprise Active Directory. The first use of this directory will be the consolidated email system; however, initial deployment will include support for NOAA standard desktop applications that can be used at an enterprise level.

(l) Deliver expert analysis and recommendations, planning, design and implementation services for NOAA's Document and Records Management Initiative.

(m) Provide a technological solution that can manage the electronically stored information (ESI) environment to

(n) Minimize costs associated with information storage and retrieval and minimize risks associated with difficulties in location of information, which includes eDiscovery capability.

(o) Cover the full life-cycle of e-discovery support including ability for ESI to be searched and identified for a Legal Hold (i.e. litigation or audit) and to retain until the Legal Hold is removed.

(p) Recommend and implement solutions to connect ESI by category to the Records Retention Schedule to enable deletion of files no longer required for retention unless marked by a Legal Hold.

(q) Provide for file sharing during document creation and during the document clearance process.

(r) Ensure DoD 5015.2 compliance to meet the NARA standard for electronic records management.

**3.3.1.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) Video capture and broadcast equipment is capable of being utilized in existing NOAA facilities without extensive modifications to those facilities.
(b) Virtual meeting technology is capable of being used in existing NOAA facilities without extensive modifications to those facilities.
(c) Collaborative web portals:

i. Document markup and development technology preserves official records in compliance with NOAA's record retention policy.
ii. Workflow automation technology allows workflows to be quickly adaptable to changes in NOAA workflow caused by mandates, legislation, or litigation.
iii. Knowledge repository technology preserves official records in compliance with NOAAs record retention policy.

(d) Enterprise-wide e-mail system services will include infrastructure discovery, design, development, maintenance, security, high-availability, continuity of operations, storage, add-on services, handheld devices, support for implementation of email and calendar services on ships, and training.
(e) Enterprise Active Directory will support applications and services currently supported by NOAA's current LDAP directory services as migrated in addition to new and developed applications and desktop application authentication. Services will include infrastructure discovery, design, development, maintenance, documentation, security, high availability, continuity of operations, and training.
(f) Technology available to the mass consumer market (e.g., webcams, gaming technology, and mobile all-in-one tools) is not excluded from the field of inquiry and proposal development, particularly if this technology results in cost savings and improved communications.
(g) Document and records management at NOAA covers the entire life cycle of documents and records from creation to ultimate disposition. Services will include: Infrastructure Discovery – Network and Storage; Interoperability with Other NOAA Systems (e-mail, PCTS, etc.), Interoperability with Other Federal Systems (PRIME, FDMS, etc.), Data Model Design, Imaging (document scanning, rendering to PDF, OCR, etc),Customization of Off-The-Shelf Products, Integration with Other Third Party Tools, Web Accessibility; Configuration Management, Security, Maintenance, Continuity of Operations, High-Availability; Documentation, and Training.

### 3.3 Component 3: Infrastructure Management

#### 3.3.1 Data and Voice Network Services

**3.3.1.1** **<u>Objectives</u>** - The initial key objectives of Data and Voice Network Services are:

(a) Design and develop a data and voice network to achieve the end-to-end performance objectives required of all key user groups and applications.
(b) Design tools and design methodology to produce a network design engineered to meet performance objectives. Actual performance measurements are folded into the overall design and capacity planning process.
(c) Profile applications (e.g., Voice Over IP [VoIP] or client/server apps) for network usage (i.e., application bandwidth and performance demands).
(d) Quantitatively assess capacity requirements via design/planning tools before (and after) deployment.
(e) Develop a capacity planning process to incorporate load growth, new applications/usage, and performance objectives whereby:

i. Capacity projection procedures meet provisioning/contracting timing requirements.
ii. Capacity projections are made before needs arise.
iii. Performance problems are anticipated via the capacity planning and design process rather than being uncovered via complaints and alarms.

(f) Develop network transparency and agility sufficient to ensure:

i. The network's design (topology, technology, etc.) does not impose performance limitations that cannot be alleviated with link bandwidth increases or bandwidth allocation adjustments.
ii. Network installs, moves, adds, and changes (IMAC) can be accommodated with minimal network recon-figuration and within prescribed time intervals. New traffic types (such as media traffic) do not necessitate significant network re-design.
iii. Assistance is available on an informal basis through a network of knowledgeable individuals.

**3.3.1.2** **Requirements** – Key requirements include:

(a) Provide Wide Area Network (WAN) Services, such as:

i. Providing "On-The-Move Telecoms" - Mobile Satellite Services (MSS) as well as the expansion of terrestrial cellular footprints to support disaster recovery scenarios;
ii. Providing wireless access to NOAAnet;
iii. Establishing "High Availability" to NOAAnet using satellite service in order to mitigate terrestrial network outages and support COOP operations;
iv. Converging voice/data/video transmission onto the NOAAnet enterprise WAN;
v. Integrating broadband wireless into the NOAA networking strategy;
vi. Making use of hybrid satellite/wireless services to support the seamless integration/optimization of diverse carrier methodologies: satellite, cellular, WiMax, Wi-Fi, etc;
vii. Integrating network management to the desktop;
viii. Supporting on-going acquisition of network hardware including routers, probes, switches, etc;
ix. Rolling out IPv6 across NOAAnet;
x. Support for "green" technology;
xi. Converging sensing and telecommunications;
xii. Supporting disaster recovery scenario using satellite, cellular, and other wireless technologies;
xiii. Extending network integration to the desktop to support collaboration, conferencing, etc;
xiv. Provide Local Area Network (LAN) services, such as:
xv. Providing centralized acquisition of LAN communications equipment (routers, switches, network management devices, firewalls, etc.); and
xvi. Centrally monitoring, managing, and administering LANs.

(b) Provide IT Operations Center services, such as:

i. Network Operations - Providing 24x7 monitoring, management, administration, and repair of wide area and local area networks across NOAA;
ii. Security Operations - Providing administration and management of IT security across NOAA;
iii. Desktop Management and Administration – Provide centralized management of desktop computers, software, and peripherals;
iv. Server Administration - Providing centralized management and administration of all servers; and
v. Administrative services, such as asset management and IMACs.
vi. Provide remote access (VPN) services for monitoring and managing methods for remote users and business partners to securely connect to the network and data center computing ser-vices over the public Internet.

(c) Provide Voice/VoIP support, such as:

i. Voice/ VoIP Devices - Providing standardization of the physical telephone equipment for NOAA facilities nationwide. The equipment will include

commercially available telephone sets, switches/routers for inter-building connectivity, and network access interfaces and security devices (firewalls).

ii. Network Monitoring and Operations - Providing a flexible integrated information system to support performance monitoring; identification of system irregularities; and resolution of problems before service quality is degraded. It incorporates a fully-featured information exchange interface that will provide real-time status reports to NOAA technical and administrative staff.

iii. Voice Network Services - Supporting Voice Network Services, including Local and Long Distance service, to NOAA phone users with local, intrastate, interstate and international calling to and from NOAA's facilities; and, as needed, communicating and coordinating with the Long Distance and Local telecommunications providers to ensure that Voice Network Services are provided and supported for all NOAA Regions.

iv. Voice Messaging and Voice Broadcasts - Supporting Voice Messaging services to allow the efficient exchange of messages between two or many people enterprise-wide as well as potential use for emergency announcements within a NOAA facility.

v. Directory Service - Supporting directory services (for example, for use with Outlook) through secure integration gateways and providing abbreviated dialing capability to any desktop telephone configured under the centrally managed NOAA voice network.

vi. Emergency Calling (E911) - Ensuring the VoIP system adheres to FCC requirements for the provisioning of electronic emergency calling capability.

(d) Support Installations, Moves, Adds, and Changes (IMAC), such as:

i. Providing on-site and remote support for Enterprise Data/Voice Network-related IMACs in all NOAA Regions.

ii. Support for scheduling, trouble ticket status updating, and asset management system up-dating.

iii. Providing NOAA telecommunications hardware inventory support and services to achieve optimal service levels. Hardware inventory services include packaging, unpackaging, imaging, updating, re-imaging, hardware diagnostics, documentation, updating of the know-ledge base, queue management and Tier 2 and Tier 3 support.

iv. Providing for the administration and management of NOAA's voice telecommunication and data network cable infrastructure.

v. Providing fully integrated generic software ACD features, such as customer programmable call screening including analysis of ANI/DNIS, trunk group, and call prompted digits; customer programmable call routing including caller selected routing, agent specific routing, and skills based routing; customer programmable call queuing including multi-split queuing and intelligent overflow; customer programmable call treatments including customized and estimated wait-time announcements and hold-in queue features; and basic call data collection and reporting including system, group and agent-level reports.

(e) Develop conferencing capabilities, such as:

i. Establishing standard add-on multi-party conferencing capabilities supporting standard limited party voice conference calls as part of the standard generic software capabilities. Establishing and supporting standard meet-me conferencing capabilities (i.e., station user-scheduled conference calls that may or may not require call parties to input an assigned access code to join the conference).

**3.3.1.3** **<u>Assumptions and Constraints</u>** - The following key assumptions and constraints apply:

(a) Voice/ VoIP:

ii. The new system is expected to have a useful productive life of at least 10 years and must be designed and configured to support the future growth and expansion requirements of the organization in terms of both size and functional parameters.
iii. It is required that the new system must accommodate future technology enhancements that have the potential to increase operational effectiveness and ease implementation of new features, functions, and applications.
iv. NOAA requires the proposed system to be based on an open system architecture design and should utilize an integrated network for transmission of control and voice communications signaling necessary to support some or all basic and advanced features and functions integral to the overall system solution.
v. The voice telecommunications solution must include analysis and recommendations for a readily available suite of: infrastructure equipment (routers/switches, desktop telephone sets, etc); network interfaces and security equipment; centralized network monitoring, management and support; and reliable long distance and local call processing. The solution must also address geographic/logical separation and backup of key network intelligence and control components, network monitoring facilities, infrastructure equipment redundancy, and strategies for the implementation of dispersed operations in event of a COOP contingency.

(b) Conferencing Capabilities:

i. Basic conferencing capabilities require that station users can implement an add-on or meet-me conference call from a standard or executive level telephone instrument.
ii. The meet-me conference extension must be able to support up to a combination of six (6): internal station users, remote access station users, and external calling parties. Add-on and meet-me requirements must be implemented without a requirement for optional application server equipment.

**3.3.2 Data Center Services**

**3.3.2.1** **Objectives** - The initial key objectives of Data Center Services are:

(a) Acquire data center and hosting services that can leverage operational scale and best practices to achieve optimum price performance;
(b) Seek cost effective approaches for managing data center assets (e.g., leasing, cost sharing, owning, etc.);
(c) Acquire ongoing feedback mechanisms to ensure performance meets expectations;
(d) Meet NOAA business needs for highly available, reliable, scalable and secure data center services; and
(e) Maintain compliance with industry standards and government regulations (e.g., FISMA).

**3.3.2.2** **Requirements** – Key requirements include:

(a) Provide hosting operations and administration, such as:

i. Managing the day-to-day operations of the Data Center computing environment;
ii. Providing and supporting a stable infrastructure;
iii. Effectively and efficiently performing operational and processing procedures to ensure services meet Service Level Requirement (SLR) targets and requirements;
iv. Providing monitoring operations; job scheduling and execution operations; file transfer management; electronic data exchange management; administration and support; and enterprise system administration;
v. Deploying additional systems, as required, to support the computing environment and to provide NOAA infrastructure technical support; and
vi. Identifying and leveraging opportunities for server consolidation.

(b) Support application and database, file/print and e-mail (and related smart phone device) servers and provide for the operations and administration of each. Support includes day-to-day activities, server provisioning, OS system administration support, software support, implementation, and testing.
(c) Provide IMAC services including logical resource loading, data and application migration to new servers, decommissioning or installing servers, load balancing and acceptance testing.

**3.3.2.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) The physical Servers in the Data Center include, but are not limited to, Windows, Linux and UNIX servers.
(b) The software component defined will relate to the operating system standardization across the different Server types.
(c) Services to be provided include, but are not limited to, server refresh, operating system update and support, management of server resources and server capacity analysis and server consolidation.

**3.3.3** **Application Management Services**

**3.3.3.1** **Objectives** - The initial key objectives of Application Management Services are:

(a) Strengthen capabilities in agile systems development;
(b) Develop a simplified set of standard infrastructure and mission support applications;
(c) Transition legacy applications to open architectures; and
(d) Reduce the total number of databases through consolidation.

**4.3.3.2A** **Infrastructure Requirements** – Key infrastructure requirements include:

(a) Develop agile systems and support software development efforts and enterprise-wide applications.
(b) Support multiple production and development/test databases across multiple platforms simultaneously (such as Oracle, SQLServer, Progress RDBMS on Unix, Linux, and Windows plat-forms.), gain knowledge of the application to the level that allows support of the database at the user level, and document new and existing processes with sufficient levels of detail to allow other DBA staff to quickly take over support of the documented application's database support.
(c) Coordinate efforts between developers and database administrators.
(d) Configure and support application server software and development and monitoring tools.
(e) Install, configure, and continuously support application server software (such as Oracle Application Server, Weblogic, Tomcat) and support existing and future versions of current application server software (including the application web layer) as well as future application server software which reflect NOAA direction in this area.
(f) Support software products (such as Business Objects, Oracle Discoverer, SAS, or other similar products) for data reporting and mining.
(g) Conduct functional requirements gathering and systems analysis as required in administrative areas, such as Finance, Budget, Procurement, Grants, Facilities, Property, and Workforce Management, conduct successful requirements development sessions, and obtain application requirements for NOAA's mission-related application needs (i.e. scientific).
(h) Analyze available commercial of-the-shelf software, and other NOAA applications to determine a "best fit" to meet the functional requirements and provide documentation describing evaluation criteria, results, gap analysis and risks associated with each application candidate.
(i) Extract and document functional requirements through interviews with functional process owners, stakeholders, and users, and through review of documents and existing applications and assist and guide the user community in streamlining their processes where possible.
(j) Translate functional requirements into a software design which meets or exceeds the expected outcome of the customer and design enterprise-wide software solutions which meet the process functional requirements.

(k) Design applications software, using current technology (i.e. Oracle, SQLServer, J2EE) with a technical design that fits with the direction of the data center (or other designated hosting centers) platforms and technical capabilities.
(l) Design and overlay software, hardware and network environments, given project targets and constraints, to design a total high quality application environment which will meet all application performance expectations and provide for a high satisfaction user experience. Resulting design deliverable will provide a path to efficient and high performing software/hardware solutions.
(m) Document software design to include process flow, user scenarios, and software capabilities sufficient to fully describe the application software to be developed or acquired.
(n) Design database tables which meet the software design and functional requirements of application software under development.
(o) Perform all operations needed to effectively complete database development efforts (Toad, Exceed, etc).
(p) Implement, improve, and apply standard methodologies in NOAA's Software Development Life Cycle processes
(q) Design the software solution's hardware, software, and support software to meet the requirements defined in the Data Center Service and to provide for the best fit, efficient and high performing technical environment meeting the application which is to be developed or supported.
(r) Produce high quality test scripts which exercise each area of an application, new or existing, fully document the test process, procedures and expected outcomes, exercise all user requirements and design documentation, and test software against those documented processes and scripts.
(s) Perform User Acceptance Testing on new or enhanced application software, work with the NOAA IT customers to ensure customer is satisfied with the products to degree that the user requirements and design calls for, and manage user expectations in these efforts.
(t) Regression test applications where changes to the software code, database, or technical environment has changed. Regression testing scripts and processes should be developed and used in the testing. All testing results should be documented and should follow the CMMI guidance for software testing.
(u) Prepare a transition plan for incoming and outgoing staff which outlines the knowledge areas to be transitioned and is associated with a schedule for the transition and fully transition work to new or existing staff with minimal impact to NOAA or application users and stakeholders or participate in the development of the schedule for transition and the contractor staff will complete full knowledge transfer to the Government staff where applications are developed by contractor staff and then supported by Government staff.
(v) Communicate with application users and stakeholders, and other technical staff to explain system issues at a level that the application user can understand extract requirements from meetings with users that are not familiar with software development efforts, and represent the NOAA technical organizations in a professional and courteous manner at all times.
(w) Support, maintain, and diagnose data and application problems of large multi-user database applications and identify root causes of application failures given very little initial information from application users.
(x) Evaluate and propose a set of software tools and support software to effectively develop and support the application and work with NOAA to procure the approved software tools and support software.
(y) Provide end-user support to applications in NOAA from the functional point of view to provide effective support and coverage in Tier 1 and Tier 2 Help desk support for applications.
(z) Perform functions, such as software configuration through application processes, account management, report generation, and user support including interacting with the application user community, understanding the processes performed by the application, and providing support to the user community as needed, and fully documenting related processes to ensure coverage of all applications.
(aa) Incorporate standardized Project Management processes, using PMBOK, to all tasking and coordinate the development process to meet all project schedules.
(bb) Produce high quality functional and technical documentation related to developed, obtained, and supported application software and their related processes and implement and continually improve configuration management (CM) processes in place.

(cc) Assist in the development of required documents and security plans.
(dd) Assist in the development of Disaster Recovery (DR) strategies, plans and documentation, participate in DR testing and validation, perform actual or bench-top DR testing, identify areas for improvement, and document DR test results.
(ee) Participate in special projects to improve NOAA's application project management, development, and support areas and assist NOAA in implementing, standardizing, and improving services in application management.
(ff) Provide a level of resources to supplement existing Federal staff and workload, and quickly increase, or decrease, staffing levels to respond to development efforts above base support levels.
(gg) Implement, manage, and monitor configuration management and version control in all contractor tasks and efforts, establish or improve existing processes related to application software release management including scheduling of enhancements based on priority and level of effort, and implement configuration management for these activities.
(hh) Provide database support and related resources capable of providing support on an "on call" basis in off hours to ensure applications are operational.
(ii) Provide NOAA with all developed software code and executables, documentation, and artifacts of the applications and websites developed, including all up-dated products as deliverables and complete all updates as part of the application development tasking.
(jj) Develop web pages using modern web development tools and utilize content management software

**4.3.3.2B** **Mission Support Requirements** – IT enables mission support throughout NOAA, and includes requirements to:

(a) Develop statistical analysis, data collection, data archive, and, data analysis software tools to improve the research and operational programs in support of warnings and forecasts;
(b) Write on-line and off-line support software, back-ground and other display support maps, and the software and firmware to communicate with both operational and developmental systems.
(c) Develop/enhance software used in association with various numerical models within NOAA organizations;
(d) Enhance the capabilities of diagnostic output modules by assessing user needs for diagnostic and I/O support tools and ensure continued development of these tools throughout the life-cycle of the research applications they support;
(e) Implement the standards and tools for Federal Geographic Data Committee (FGDC)-compliant metadata creation, validation, and publication (e.g., Geospatial Metadata);
(f) Improve the operational programs of NOAA in support of warnings and forecasts in the areas of statistical analysis, modeling, and application of science, such as oceanography, meteorology, and hydrology, to the solution of mission challenges and product development;
(g) Design, prepare, submit, execute, monitor, analyze, and properly dispose of results from numerical model experiments in partnership with scientists to develop a suite or series of runs of weather, ocean, or climate models to explore scientific principles and address research topics;
(h) Write utility routines to manipulate datasets, generate plots or other graphics, and code algorithms;
(i) Create/edit graphical products requiring presentation, color, and complexity;
(j) Perform data/tools/systems technical support for data/file format management, to process digital data, write high-level interface routines, and utilities for converting data;
(k) Provide capabilities for handling images, animations, and documents obtained/developed/maintained and applied to produce digital material for publication;
(l) Maintain and develop web-based data serving packages, including specific data import and export capabilities;
(m) Design database systems and manage NOAA collections of archived data;
(n) Process ingested data from NOAA operations (e.g., satellite, radar, model, upper air, and surface), as well as data collected by scientists using meteorological observation equipment (both mobile and in-situ sensors).
(o) Perform Scientific Visualization and Analysis support for analyzing data and producing visualizations;
(p) Maintain/expand a library of shared, COTS (commercial off the shelf), and locally developed packages;

(q) Develop local modules to expand the functionality of existing packages (e.g., geographic information systems and geospatial data analysis) to create, manage, publish and disseminate global knowledge;
(r) Provide systems engineering design/prototype development and testing to include field tests of equipment, development, testing, simulations, pre-production and integration of radar, satellite, shipboard, and other system components; and
(s) Support test facility problem resolution to include meetings and reviews, technical editing of reports, specifications, and analysis of systems requirements.

**4.3.3.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) Compliance with:

i. Section 508 for all software design and development efforts.
ii. Federal, DOC, and NOAA Security policies and procedures including all security policy and procedure, such as: banners indicating user is about to enter a Government site, encrypted links when indicated using Secure Socket Layer (SSL) or other approved encryption methods, no persistent cookies (unless waiver is obtained), compliance with NOAA and DOC password policy, as well as the protection of all Personally Identifiable Information (PII).
iii. CMMI, ITIL, and PMBOK guidelines throughout and across all software development and application management areas and activities, such as the software development lifecycle processes, functional requirements development, software testing, documentation, etc.
iv. Business Process Re-Engineering techniques, and
v. Federal Government Certification and Accreditation (C&A) process and development as it relates to application software

(b) Special staffing needs:

i. NOAA provides hosting and support to applications and databases on a 24x7 basis for which staffing is required.

**4.4 Component 4: Business Management**

**4.4.1 Business Enterprise Architecture**

**4.4.1.1** **Objectives** – The objectives for the Business Enterprise Architecture are:

(a) NOAALink is intended to transform NOAA's business process into the results-oriented "One-NOAA".
(b) NOAA desires an effective, repeatable, tailorable, and sustainable Research to Operations (R2O) processes that leverages industry best practices to achieve maximized operational benefit from NOAALink consolidated savings.
(c) NOAALink adheres to the Federal Enterprise Architecture (FEA), a business-based framework for Government-wide improvement.
(d) NOAALink employs a federated enterprise architecture which consists of:

i. Business Architecture
ii. Five Management Areas based on requirements
iii. NOAA Line Office Enterprise Architectures

(e) The purpose of this effort is to identify opportunities to simplify processes and unify work across NOAA and within its lines of business; and increase NOAA's Return-on-Investment through best practices and innovative procurement.

**4.4.1.2** **Requirements** – Key requirements include:

(a) The NOAALink Business Enterprise Architecture foundation is its Business Reference Model, which describes NOAA Line Office's lines of business. This business-based

foundation provides a common framework for improvement using Lean in variety of key areas such as:

i. Develop and implement NOAALink to Lean Transformation Roadmap
ii. Strategic Sourcing: Smarter ways to buy
iii. Performance and Results: Business Intelligence
iv. Information Technology Initiative (ITI LOB)
v. Infrastructure interoperability of NOAA functions
vi. Optimize the infrastructure to enable collaboration within and across NOAA and the Department of Commerce
vii. Efficiencies realized from Lean derived infrastructure investments will be recapitalized in support of agency mission (Research to Operations (R2O))
viii. Infrastructure investment governed to achieve agency mission and Government-wide goals (R2O)
ix. Internal Efficiency & Effectiveness
x. Information Sharing: Business Intelligence
xi. Performance Measurement: Business Intelligence
xii. Budget/Performance Integration: Business Intelligence
xiii. Internal Efficiency & Effectiveness: Lean Six Sigma
xiv. Component architecture enables a user controlled "plug and play", network/infrastructure: Networx Universal
xv. Establish a converged NOAALink network infrastructure: Networx Universal
xvi. Leveraging a common business process and system architecture

**4.4.2 Strategic Sourcing Catalog Services**

**4.4.2.1** **Objectives** - The initial key objectives of Strategic Sourcing Catalog Services are:

(a) Create sustainable purchasing savings through Lean sourcing that will provide four key benefits to the organizations. These are:

i. Greater buy-in from key stakeholders: AGO, CFO, and CIO from the perspective of price and performance
ii. Greater likelihood of implementing identified sourcing savings
iii. Continuous improvement in quality and reduced waste
iv. On-going additional cost reduction opportunities via collaboration with supply partners
v. Create an actionable Strategic Sourcing Catalog consistent with evolving ITIL standards and processes in the areas of Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement.
vi. Consolidate hardware, software and service into a actionable service catalog;
vii. Increase value through centralized control of the ordering and provisioning process;
viii. Achieve better management oversight over the lifecycle of the ordering process; and
ix. Increase ability to enforce and audit compliance of IT service delivery.

**4.4.2.2** **Requirements** – Key requirements include:

(a) Develop a NOAALink Lean extension of Information Technology Infrastructure Library (ITIL) version 3 that is a prescriptive way of evolving the NOAALink Enterprise Architecture:

i. Increase the speed of process improvement that is in alignment with ITIL
ii. Improve the use of services provided by existing human and software resources
iii. Provide an analytic framework for measurement and making improvements on a continuous basis
iv. Apply process improvement methodologies to NOAALink requirements to improve end-to-end supply chain processes

v. Develop Lean methodology and transaction tracking to help validate and facilitate Service Catalog definitions
vi. Define primary transactions (AGO, CFO and CIO: customer views)

(b) Enhanced Configuration Management Data Base (CMDB) requirements:

i. Request status, asset management, site location, inventory mapping
ii. Define roles that systems play within transactions

(c) Develop Transaction Model:

i. Establish electronic invoicing and payment metrics
ii. Follow Lean approach of pull
iii. Identify enabling IT services: apply Lean systems analysis techniques
iv. Service Management Principles: develop architectural principals based on Federal Enterprise Architecture to guide efforts

(d) Provide order processing and catalog services, including the capability to:

i. Provide a central order processing system to handle all procurement requests.
ii. Define internal and external customer services, as well as IT enabling services
iii. Create a modeled view of infrastructure hardware and software components to support delivered services
iv. Connect with technology asset information, user directories, usage details for each service, cost information, pending provisioning requests, and management metrics for measuring availability and performance
v. Provide detailed information at the helpdesk concerning the resolution of problems and incidents in the NOAA environment
vi. Provide for cost provisions surrounding the products and services offered based on quality of service and other parameters
vii. Provide current data on both availability and performance of IT products and services (outsourced and NOAA-provided)
viii. Provide current data on the hardware and software components of a product or service
ix. Provide a history of service usage and impact
x. Identify and qualify suppliers to provide hardware, software, consultative, and order-management products and services
xi. Support graphical, browser-based depictions of available products and services
xii. Define and track delivery to multiple delivery points for each order.
xiii. Ensure order forms indicate either delivery directly to the end-user desktop for installation or delivery to the Point of Contact (POC).

(e) Ensure acquisition tools are included in, or linked to, the Service Desk and Asset Management System (see also Section 2, Desktop Management Services, Asset Management System) in order to:

i. Provide and maintain an electronic product catalog and ordering function that is accessible to NOAA end-users.
ii. Provide product catalog variations by region.
iii. Track, through a web site, the status of single orders or multiple orders.
iv. Provide order tracking and reporting to order closeout per procedures.
v. Obtain Original Equipment Manager (OEM) configuration, for hardware and software, and pricing for evaluation and inclusion in the standard catalog.
vi. Modify catalog to reflect standard service offerings.
vii. Provide updated configurations and price updates based on the market price fluctuations.

(f) Provide equipment and services (such as hardware, software, license renewals, professional services, and order management) to:

i. Offer approved products from a variety of sources and manufacturers.
ii. Provide management of the supply chain process from order, through delivery, including warranty provisions, defects and returns.
iii. Deliver potentially preconfigured equipment.
iv. Develop and maintain relationships with key suppliers and be able to assist NOAA in procuring software licenses.
v. Support various licensing approaches and enable NOAA to procure economical upgrades for newer versions.

(g) Incorporate a process for managing service level agreements from "cradle to grave" and ensure that service level agreements are met. The service provider's SLM process is responsible for ensuring that all IT Service Management processes, Operational Level Agreements, and underpinning artifacts, are appropriate for the agreed upon service level targets and metrics. The SLM process will be used by the customer and the Program Management Office to monitor and report on service levels, and to hold regular customer reviews.

**4.4.2.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) NOAA users are able to place delivery orders electronically through a web page. Orders can be as small as a single piece of equipment or as large as a consolidated order of many items with multiple delivery addresses.
(b) The Strategic Sourcing/Service Catalog will integrate effectively with many other service fulfillment engines
(c) Business-level requirements, as addressed in this document, represent a reasonably complete set of issues to be addressed
(d) An assessment will be conducted of current NOAA-wide hardware and software architectures in order to recommend standard target architecture.
(e) Equipment/service quality standards for all product/service categories will be developed.

**4.4.3 Training, Professional, and Consulting Services**

**4.4.3.1** **Objectives** – The objective is to transfer expertise in implementing Lean Thinking to organizations using NOAALink services within NOAA, to include the Department of Commerce.

(a) NOAALink's goal is to make Lean Thinking the philosophical basis for decision making regarding what products and services NOAA procures and how they provide them.
(b) Buy training and support for full-scale lean implementation in the elimination of waste and the adding of value in every step of the process. It is a collection of principles, methods and tools that improve the speed and efficiency of any process.
(c) The initial key objectives of Training, Professional, and Consulting Services are:
i. Develop the framework for a comprehensive and mutually reinforcing IT training and consulting capability at NOAA, such as:

- Training programs to support Lean
- Training programs to support Value Stream Mapping
- Training programs to support Kaizen Events
- Training programs to support Advanced Lean Techniques
- Alignment Reviews
- Coordination Support
- Administration, Management, and Reporting
- Training programs to support real-world mission needs;
- Training participants to established project, program, and portfolio management process standards; and
- Building workforce capabilities in core IT and project management knowledge areas.

ii. Develop the capability for "just-in-time" training across IT strategy and project, program, and port-folio management disciplines.

**4.4.3.2** **Requirements** – Key requirements include:

(a) Assist the Government in identifying gaps between the current and the ideal state.
(b) Assist in the development of a rapid improvement action plan for the efforts required to close or eliminate the identified gaps.
(c) Provide training in Lean Thinking and facilitate the development of lean processes at the Government's location(s) in order to:

i. Demonstrate the ability to develop and implement Lean Thinking
ii. Transfer the related expertise in doing so to Government employees through hands-on participation.
iii. Assist the Government in developing metrics identifying the before and after state.

(d) Provide project management training and consulting services, such as:

i. Conducting courses in project management and business analysis;
ii. Providing training to achieve Project Management Professional (PMP) certification;
iii. Providing support and expertise to lead seminars and roundtable discussions on project management; and
iv. Providing support for individual coaching and focused consulting in project management.
v. Identify training capabilities and provide qualified staff to support a broad range of training services including training center-based services, on-site regional location training and CBT from any location.

(e) Develop training centers, such as:

i. Designing and implementing, or assisting in, the design and implementation of training centers at one or more sites within NOAA;
ii. Designing and implementing externally hosted training centers for NOAA; and
iii. Supporting training centers, either through constant or periodic maintenance as agreed with NOAA.

(f) Provide on-site training, such as:

i. Support for training at designated NOAA training centers. These environments are equipped with all the necessary technology to support presentation and computer-based training.
ii. Supporting NOAA by providing instructors (as necessary) at various locations including the training facilities and select NOAA office locations.
iii. Provide computer-based training and support development, documentation, maintenance, hosting and provision of end-user training for standard NOAA products.
iv. Provide train-the-trainer services (as well as assist NOAA in providing "train-the-trainer" services and training/materials) to NOAA selected trainers that will provide additional field training.
v. Develop instructor-led training and provide resources to provision instructor-led classes.
vi. Support course development to include providing ad hoc support for the creation of training materials that are beyond the scope of the NOAA's standard product list and may include the development of safety classes, new software, other NOAA specific material, etc.
vii. Provide resources to assist with the preparation of a Strategic Training Plan to document the near-term and long-term training requirements.
viii. Provide a variety of professional and consultative services to support IT requirements, such as subject matter experts, facilitators, and other support as required.

**4.4.3.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) The capabilities of the Department of Commerce Learning Center (CLC) will be leveraged.
(b) Deliverables and scope must be defined, agreed to, and listed at the inception of the project.
(c) All output from services purchased by NOAA is the property of the United States Government.
(d) All learning management systems must be compliant with Aviation Industry CBT Committee (AICC) and Sharable Content Object Reference Model (SCORM) standards.

**4.4.4 Special Project Services**

**4.4.4.1** **Objectives** - The initial key objectives of Special Project Services are:

(a) Ensure special projects complement major business objectives and achieve technical, organizational and strategic synergies.
(b) Ensure special projects devote resources to business teams addressing key business initiatives defined by the NOAA leadership.

**4.4.4.2** **Requirements** – Key requirements include:

(a) Support general requirements, additional projects, requirements and/or projects yet to be defined.

**4.4.4.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) Hardware and software maintenance support will be provided.
(b) Delivery will be on-time and on-cost.
(c) Federal government oversight will be permitted.
(d) Agreed-upon legal responsibilities at project outset will be adhered to.
(e) Legal review of project will be provided.
(f) Possible changes in project scope due to change in laws will be allowed.
(g) Systems will conform to security model and requirements if a project is adding computers and/or networking to an existing NOAA Certification and Accreditation (C&A) system. (See also Section 5, Information Security and Risk Management.)

**4.5 Component 5: Information Security and Risk Management**

**4.5.1 Security Services**

**4.5.1.1** **Objectives** - The initial key objectives of Security Services are:

(a) Transform security management from a "notification" process to a point for management control and continuous improvement.
(b) Enhance IT security programs and requirements at NOAA.
(c) Develop a comprehensive security program including formal integration with:

i. Configuration Management
ii. Change Management
iii. IT Finance Management
iv. Quality Assurance
v. Service-level Management
vi. Release Management
vii. Monitoring
viii. Facilities Management
ix. Incident/Problem Management
x. Infrastructure Planning
xi. Performance Management
xii. Business Continuity Management

(d) Make operational, for the security function, the means and ability to detect record, analyze the significance of, report and act upon security incidents, and minimize the probability of occurrence by applying intrusion testing and active monitoring.
(e) Develop the capability to systematically collect and analyze information on new threats and vulnerabilities, and promptly communicate and implement adequate mitigating controls.
(f) Implement an automated system to manage all facets of security component lifecycle as follows:
    i. Make available self-assessment aids that map changes to impacted resources/systems
    ii. Make operational consolidated systems management, configuration management, service level management and problem management repositories.

**4.5.1.2** **Requirements** - Key requirements include:

(a) Develop a Security Operations Center (SOC) with the following supporting requirements:

    i. Provide a SOC to perform monitoring of security technologies and devices (e.g., firewalls, intrusion detection systems) and implement NOAA security policies and compliance with current Federal, Department and Agency security standards. This also includes support for Federal Information Security Management Act (FISMA) reporting requirements.
    ii. Provide end-to-end security incident visibility and resolution for Tier 2 and Tier 3 security issues that are escalated to SOC.
    iii. Identify the patches for known security breaches or incidents and implement them efficiently with minimum impact to NOAA operations.
    iv. Provide security information management capabilities (e.g., log analysis, vulnerability assessment).

(b) Provide security services with the following supporting requirements:

    i. Support the security of NOAA personnel information. This includes supporting compliance with the Homeland Security Presidential Directive (HSPD-12) for a common identification standard for Federal employees and contractors.
    ii. Integrate security processes into other IT or business processes, such as patch and configuration management, identity and access management, hosting, storage management and remote access.
    iii. Provide security services at the application level, especially in application development and testing initiatives.
    iv. Offer solutions for Digital Signature Authority Services (such as for document signing and website certifications) for the NOAA Enterprise and its Line Offices that are not addressed under Homeland Security Presidential Directive-12 (HSPD12).

**4.5.1.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) Compliance with all:

    i. Federal Laws
    ii. Federal Information Policies and Practices
    iii. Homeland Security Presidential Directives
    iv. Federal Acquisition Regulations and Commerce Acquisition Regulations
    v. DOC Information Technology Policies, Directives, and Guidance
    vi. NOAA Information Technology Policies, Directives, and Guidance
    vii. Applicable Line Office Information Technology Policies, Directives, and Guidance.

(b) Vendor solutions should be based on Industry Best Practice and incorporate the International Organization for Standardization (ISO) and Information Technology Infrastructure Library (ITIL) standards and practices in their offerings.

(c) Providers will incorporate IT security requirements into all other management components and service areas.

**4.5.2 Continuity of Operations and Disaster Recovery Services**

**4.5.2.1** **Objectives** - The initial key objectives of Continuity of Operation Services are:

(a) Develop and implement a continuity of operations and disaster recovery plan to address the immediate and longer-term needs of NOAA.
(b) Establish a NOAA Disaster Recovery Process including provisions for rigorous testing, training, and continuous improvement.

**4.5.2.2** **Requirements** – Key requirements include:

(a) Create and execute a comprehensive Continuity of Operations and Disaster Recovery (COOP/DR) plan, such as:

i. Determining vulnerability to significant service interruptions for NOAA missions and programs;
ii. Identifying and analyzing economic, service, public image, and other implications of extended service disruptions;
iii. Defining preventive measures to minimize the probability and impact of interruptions;
iv. Defining recovery alternatives and best approaches for providing the capability for backup operations and timely service restoration; and
v. Determining immediate, intermediate, and extended recovery needs and resource requirements.
vi. Support to archiving of data creation of data levels essential to NOAA continuity of operations
vii. Update and test the COOP/DR plan on a regular basis to ensure all stakeholders are aware of their assigned roles and responsibilities;
viii. Provide COOP/DR services to restore NOAA operations in a timely, effective manner; and
ix. Provide COOP/DR services for all NOAA offices.

**4.5.2.3** **Assumptions and Constraints** - The following key assumptions and constraints apply:

(a) The COOP/DR plan will be in accordance with applicable Federal standards and the best practices of industry and government.
(b) All COOP/DR data center facility locations shall be approved by NOAA.

## 5.0 GOVERNMENT QUALITY ASSURANCE REQUIREMENTS

- Value Measurement Methodology
- (LEAN) Six-Sigma
- Acquisition Information Reporting (AIR) Business Intelligence
- Government Performance and Results Act (GPRA)
- President Management Agenda Scorecard
- Innovative Tools, Methods, and Systems to Measure Effectiveness (President Management Agenda)
- Quality Assurance Surviellance Plan
- Earned Value Management

## 6.0 CONSTRAINTS

## 7.0 GOVERNMENT-FURNISHED PROPERTY, DATA AND SERVICES

Government-furnished property, data and services will be defined on an individual task order basis.

## 8.0 PERIOD OF PERFORMANCE

The period of performance for the overall NOAALink contract is 10 years from date of award. The CORE Management Services ordering period is from date of contract award to 10 years thereafter.

## 9.0 PLACE OF PERFORMANCE

The place of performance is Department of Commerce-wide and includes all its Bureas and Offices and contractor facilities.

## 10.0 APPLICABLE DOCUMENTS

The following list outlines many, but not all, of the key policies, regulations, and guidance that apply to initiatives, projects, and activities executed under this initiative.

### (a) Laws and Regulations

i. Presidential Management Agenda
ii. Public Law 104-106, Clinger-Cohen Act, February 10, 1996.
iii. Federal Information Security Management Act of 2002 (Note: This Act is also codified as Title III of Public Law 107-247, E-Government Act of 2002.)
iv. Public Law 105-277, Government Paperwork Elimination Act of 1998 (GPEA).
v. Public Law 103-355, Federal Acquisition Streamlining Act of 1994, Title V (FASA V).
vi. Public Law 103-62, Government Performance Results Act of 1993 (GPRA).
vii. Paperwork Reduction Act of 1995 (PRA).
viii. Public Law 107-347, Title III, the Federal Information Security Management Act (FISMA) of 2002.

### (b) Policy and Guidance

i. Homeland Security Presidential Directive 12 (HSPD 12), Policy for a Common Identification Standard for Federal Employees and Contractors
ii. OMB Circular A-11, Planning, Budgeting, Acquisition of Capital Assets, dated June 2006.
iii. OMB Circular A-130, Management of Federal Information Resources, dated November 2000.
iv. The Federal Acquisition Certification for Program and Project Managers (FAC-PPM), April 25, 2007.
v. The National Institute of Standards and Technology (NIST) Special Publication 800-64, Security Considerations in the Information System Development Life Cycle, Rev. 1, June 2004
vi. Strategic Sourcing OFPP Memorandum
http://www.whitehouse.gov/omb/procurement/comp_src/implementing_strategic_sourcing.pdf
http://www.whitehouse.gov/omb/procurement/comp_src/implementing_strategic_sourcing.pdf
http://www.whitehouse.gov/omb/procurement/strat_sourc/fssi_progress_052207.pdf
http://www.whitehouse.gov/omb/procurement/strat_sourc/2007_report_guidance.pdf
vii. Key Benefits of FSSI Office Supplies
http://www.ago.noaa.gov/ago/docs/michelkareis_presentation.pdf
viii. IT Investment Cost Measurement Framework
http://www.whitehouse.gov/omb/memoranda/fy2006/m06-22.pdf
ix. Federal Enterprise Architecture Framework
http://www.cio.gov/Documents/fedarch1.pdf
x. The Federal Transition Framework (FTF) http://www.whitehouse.gov/omb/egov/a-2-EAFTF.html
xi. Infrastructure Segment Architecture
http://www.whitehouse.gov/omb/egov/documents/EA_Assessment_FAQs_New.pdf
xii. Transition Strategy and Sequencing Plan
xiii. DOC Enterprise Architecture Template
http://ocio.os.doc.gov/ITPolicyandPrograms/Enterprise_Architecture/ssLINK/PROD01_004198
xiv. OMB Information Technology Infrastructure Line of Business (ITI LOB)
xv. ITI Portfolio Project Management
xvi. Fiscal Year 2010 IT Budget Guidance to Support e Department's Consolidated IT Infrastructure Exhibit 300
http://ocio.os.doc.gov/ITPolicyandPrograms/Capital_Planning/PROD01_002098
http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/prod01_003105.pdf
xvii. A Practical Guide for Developing an Enterprise Architecture
http://www.gao.gov/bestpractices/bpeaguide.pdf

xviii. Government Performance Results Act of 1993
xix. President's Management Agenda
xx. Expanding E-Government: Improved Service Delivery for the American People Using Information Technology (December 2005)
xxi. Expanding E-Government: Partnering for a Results-Oriented Government (December 2004)
xxii. The Federal Government is Results-Oriented, A Report to Federal Employees (August 2004)
xxiii. EPEAT Electronic Product Environmental Assessment Tool
http://www.federalelectronicschallenge.net/resources/docs/epeat.pdf
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(End of Attachment A)

# ATTACHMENT B

# QUALITY ASSURANCE SURVEILLANCE PLAN
# AND
# RESPONSIBILITIES MATRIX

## ATTACHMENT B: QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)

Acquisition Architecture and Operations
Contract Support (AAOCS)
**NOAALink Quality Assurance Surveillance Plan Workbook**

### About This Document

NOAALink Quality Management is an important part of a successful project, understood as meeting the project sponsor (NOAA CIO) and business owner's (Acquisition and Grants Office) business requirements. The NOAALink Project Management Plan, Quality Control and Objectives provides the NOAALink project with the opportunity to spell out what it considers important quality items, and how it will be monitoring these items.

For almost all the NOAALink IT tasks/projects proceeding through the various Project Certification approval gates, along with the define, design, build, test and deployment product development phases, this separate Quality Assurance Plan will be appropriate.

NOAALink IT tasks/projects will use the NOAALink Information Technology Quality Assurance Plan Template for which this workbook will provide substance and guidance.

This document is meant to provide guidance and background for the QA activities for NOAALink tasks/projects.

### Revision History

| Revision Number | Date | Comment |
|---|---|---|
| 1.0 | October 16, 2008 | Acquisition Architecture and Operations Contract Support (AAOCS) – NOAALink IT Project Management Revision |
| 2.0 | | |
| 2.1 | | |
| 2.2 | | |

### A. The Quality Assurance Plan Template

The bulk of this Quality Assurance Plan Workbook is background to the plan and its actualization and is meant to keep the Plan to the specifics of the particular task/project. This section will briefly cover the sections of the template referencing other sections in this workbook.

### A.1 Executive Summary

The focus of the executive summary section is to bring forward the Project Management Plans statements of the project sponsor and business owners objectives, critical success factors, milestones, quality standards and planned reviews and assessments.

### A.2 Scope of the QA Plan

During the development of the project charter and project management plan, the project and the AAOCS Information Technology Project Oversight and Compliance organization will establish the appropriate project tailoring to be used for templates and other project activities. These pieces will fall into the five general categories listed below. The agreed upon project activities are to be listed in Section 2.1 of the Scope section under the five general category headings.

#### (a) Project QA focus categories

Each of these categories is briefly explained in the template.

- Project Management
- Requirements Management
- System Development
- Testing and Acceptance

- Transition to Operations

**A.3 QA Organizational Structure**

**(a) Governance structure**

The roles and responsibility of project Sponsor/Business Owner, Project Manager, QA Manager, QA Team and Configuration Management are spelled out and the project needs to supply the name and contact information. Specific responsibilities of the AAOCS team are identified in the draft NOAALink Integrated Acquisition Environment (NIAE) Governance Plan.

**(b) QA Team Roles and Responsibilities**

The names and specific responsibilities of the QA team are identified in this section.

**A.4 Required Documentation/Artifact by task/Project Phase**

Along with the project tailoring on project activities are the specific documents/templates to be used by the project in each phase of the project. These are to be specified in the QA Plan document in this section.
These then become the subjects for QA team reviews. Each Template will be included in the QA check lists, but the QA reviews will be guided by the topics of the template and the responses of the project to each topic. Refer to the General QA Criteria presented in this workbook.

**A.5 Planned QA Activites**

**(a) By Deliverable**

Each task/project deliverable should be listed in the Project Management Plan, along with the deliverable acceptance criteria and the quality review process.

| | |
|---|---|
| Description - | Deliverable Acceptance Criteria - . |
| | Standards for Content and Format - |
| | Quality Review - |

The Project Management Plan also has a table of approvers and date approved.

| Deliverable Number | Deliverable | Approvers (Who can approve) | Date Approved |
|---|---|---|---|
| PRJ-DEL-001 | Project Management Plan (PMP) | | |
| | | | |

The task/project should also have a deliverable approval template which has appropriate signatures when the deliverable is formally approved.

**(b) By Toll Gate**

As presented in the Toll Gate section of this workbook:
For better manageability and control, each task/project is organized into logical, related segments called phases. Each phase must pass its Toll Gate (approved) before the next phase can begin. The decision points (checkpoints) at the end of each phase are called Toll Gates.

A Toll Gate is the vehicle for securing the concurrence (i.e., approval) of designated individuals to continue with the task/project and move forward into the next phase of transition, development, or maintenance. The concurrence is an approval (sign-off) of the deliverables for the current phase of development including the project plan. It indicates that all qualifications (issues and concerns) have been closed or have an acceptable plan for resolution.

The NOAALink QA (performance monitoring) team should not only be represented at the phase toll gate, but also have identified documents or steps they have reviewed. They will be asked for feedback about the quality of these items. The feedback will have impact on the decision to move forward, or to have work corrected before the task/project moves forward into the next phase. The project team, sponsors/business owners, the Project Certification Committee or the AAOCS Information Technology Project Oversight and Compliance organization may request a special QA review of any aspect of the task/project.

**A.6 Reporting Methods**

The QA team will report the results of their reviews and the recommended corrections for each item that needs improvement, using QA checklists provided by AAOCS Information Technology Project Oversight and Compliance organization or established additionally by the task/project team and or shared service provider.

**A.7 Quality Assurance Metrics**

Part of the QA team's process will be the records kept as to their activities. Some items are mentioned in the template.

**B.0 Quality Assurance overview**

In order to provide high quality products and services, the task/project teams must adhere to processes, procedures and standards. Quality Assurance (QA) is a process used to monitor and evaluate the adherence to processes, procedures, and standards to determine potential product and service quality. It involves reviewing and auditing the products and activities to verify that they comply with the applicable procedures and standards, and assuring the appropriate visibility for the results of the reviews and audits.

QA activities are an integral part of all NOAALink task/project activities. This model plan provides QA activities appropriate to the project activities as it moves through the initiate, plan, define, design, build, test, deploy and close phases.

**B.1 Definitions**

Quality Assurance Plan- Establishes the basis for reviewing and auditing of the products and activities to verify that they comply with applicable procedures and standards and to assure the production and operation of high quality products according to stated requirements.
Quality Assurance – Management Aspect –Planned and systematic activities implemented within the quality system to provide confidence that the project will satisfy the relevant quality standards.
Quality Control – Technical Aspect – monitoring specific project results to determine if they comply with relevant quality standards, identifying ways to eliminate unsatisfactory results.

**B. 2 Purpose**

The purpose of this document is to function as a guide to facilitate the establishment of Quality Assurance (QA) activities within processes and procedures used to deliver the business and technical objectives associated with task/project. This plan provides a structured systematic method to provide confidence that the products and services are developed and delivered according to established Lean/Six-Sigma processes.

It defines the policy for QA activities, the organizational structure of the QA group, responsibilities of the QA group, responsibilities of affected groups, and identifies necessary reviews and audits:

- Monitoring the project and enforcements of compliance with all standards and procedures to facilitate the early detection of problems that could affect the reliability, maintainability, availability, integrity, safety, security, or usability of the product
- Inspecting hardware, and software items and documentation for compliance to specification and standards before their release to the test team for system owner
- Certifying deliverable items before their release as compliant with all provisions of the project statement of work and contracts.
- Measuring the quantitative and auditable progress of the project based on cost, schedule status, and quality status.
- Identifying lessons learned that could improve Lean/Six-Sigma processes for future products and services.

This document serves as a template of NOAALink IT task/project QA activities and should be tailored by each task/project team to fit their specific activities. This template will be updated on an on-going basis as a result of Lean/Six-Sigma process improvement activities.

**B.3 Methodology**

The methodology used to establish the AAOCS Information Technology Project Oversight and Compliance organization QA process is based on the methodology used to implement quality assurance for software products. The QA function and applied techniques are the same for all NOAALink Information Technology task/projects

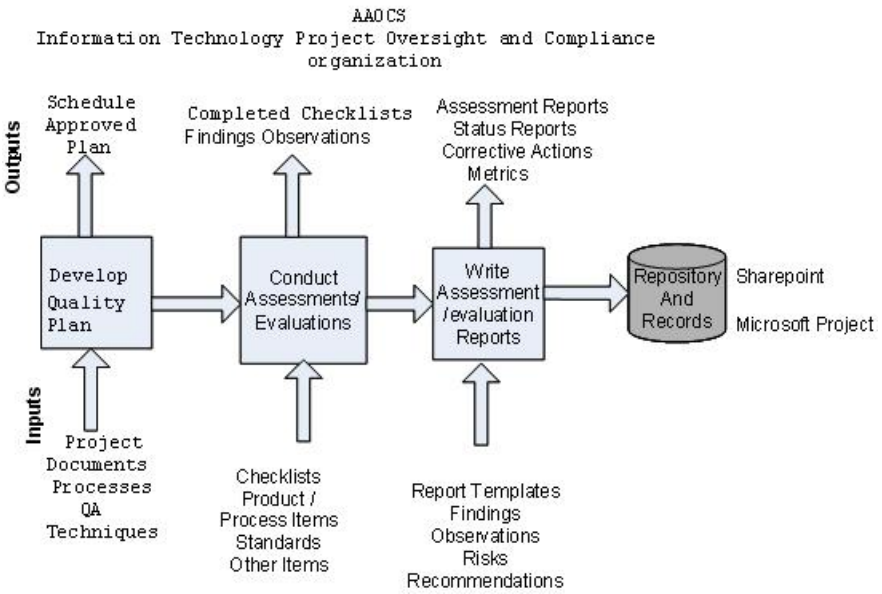
The methodology presented in this document is based on the Software Engineering Institute's Capability Maturity Model (SEI/CMMI) level 3 and the Institute for Electrical and Electronics Engineers (IEEE) standards for Information Management. The activities and standards set forth by SEI and IEEE are used as the foundation to guide IT Project QA activities.

These methodologies supplement the quality control and quality assurance framework establish in the Project Management Institute's PMOK©, a guide to the Project Management Book of Knowledge, Third edition under the Project Management Knowledge Area, Project Quality Management.

A summary of these approaches includes:

(a) Allocation of adequate resources and funding to maintain and perform quality assurance activities
(b) Participation by quality assurance representatives in the preparation and review of task/project plan, standards and procedures.
(c) Reviews of the product development and delivery activities to verify compliance.
(d) Audits of designated work products to verify compliance.
(e) Documentation of deviations identified in the project activities and work products and handled in accordance with a documented procedure.
(f) Periodic reviews by independent quality assurance representatives of the activities and work products of the task/project.
(g) Compliance issues are first addressed with the task/project manager.
(h) Establishment of corrective action reports.

**Steps in the NOAALink QA Process**




(a) Specific work products and processes to be evaluated are designated at the outset of the project.
(b) When or how often will the evaluations be conducted.

(c) How will the evaluation be conducted
(d) Who will be involved in the evaluation?
(e) What techniques, such as Structured Walk Through to validate quality assurance policies and other procedures are appropriate and valid for the project.

(f) Record keeping:
   i. Evaluation logs
   ii. Quality assurance reports
   iii. Status reports of corrective actions
   iv. Reports of quality trends

**B.4 References**

The following references will be used to further development of this template. Identified standards were used as a guide to develop a format for this document.

AAOCS Information Technology Project Oversight and Compliance organization
Project Oversight Memorandum
Project Certification Memorandum
NOAALink Enterprise Architecture Framework
NOAALink Business Architecture Framework

Industry Standards and References

ANSI/IEEE Std. 730.1 - 1989 Standard for Software Quality Assurance Plans
ANSI/IEEE Standard for Software Reviews and Audits
Software Engineering Institute, "Capability Maturity Model" Level 3

**B.5 Relationship between Quality Asssurance and IV&V**

Unless the IV&V requirement is waived by the AAOCS Information Technology Project Oversight and Compliance organization, one of the tasks of the IV&V vendor is to review this Quality Assurance plan and its execution by the task/project and the QA team.
Where a NOAA Line Office (LoB) does not have adequate resources for a QA team and its processes, these responsibilities and activities will fall to the IV&V Vendor.

The AAOCS Information Technology Project Oversight and Compliance organization IV&V Guidance Document provides a similar Plan template and directions for the IV&V vendor and contracting agency.

**C.0 Quality Assurance Criteria**

The ultimate purpose of quality assurance is to make sure that the task/project sponsor's business objectives are met through the final deployed product.
Task/projects achieve the deployed product through a series of development steps that should be documented as to the processes to be followed, the questions and concerns to be addressed at each step, and the input-output of each step or phase.
Documents are to be considered as both governance guidance and instructions for the various teams or individuals who are to do the project work and product development. The QA Plan establishes the items that need to be reviewed in the QA process.

**C.1 General Criteria**

While each item needs to be evaluated according to the purpose of the item, criteria for evaluating QA include the following:
   i. Does the document exist?
   ii. Have all sections of the document been addressed?
   iii. Is the language of the document clear and understandable?
   iv. Have technical terms been explained in a glossary for the non-technical sponsor or reviewer?
   v. Have the document reviewers and approvers been established?

vi. Has the document been reviewed in the project?
vii. Have the shortcomings of the item been identified and corrected?
viii. Has the document been approved?

### C.2 Specific Phase and Deliverable Criteria

AAOCS Information Technology Project Oversight and Compliance organization Project Management Services Team will establish specific phase and deliverable checklists that target quality assurance concerns for each phase and document identified. QA teams should use these in their reviews.

### D.0 Quality Assurance Methodologies

Different methods and techniques will be utilized depending on the specific quality assurance activity. The techniques, tools, and methodologies that will be used are as follows:

Walkthroughs - Formal or informal, structured walkthroughs are used for orientation, examining promising ideas, identifying defects or errors, and improving products at any stage in the process.

Reviews - An independent evaluation of an activity or process to assess compliance with the project plan; or to examine products or processes against quality factors through the use of checklists, interviews, and meetings.

Audits - An independent examination of a work product or process to determine compliance with specifications, standards, contractual agreements, or other pre-established criteria.

Evaluations - An evaluation activity that examines products/services to determine compliance to requirements.

Process Improvement - A process improvement program designed to reduce the error rate in a process.

Quality Assurance will provide an independent review of the processes used at key check points. These reviews will seek to identify risks early, and will simplify monitoring and managing problem areas throughout the project.

As established by the AAOCS Information Technology Project Oversight and Compliance organization QA reviews will be part of the Project's tollgate reviews at the end of the initiate, plan, define, design, build, test and deploy phases as well as the project close phase.

Due to the dynamic nature of task/project activities and the need to provide quick response requests, the QA team and the technical/performance monitor will identify the sign-off points at key check points of an activity to ensure that expressed goals and requirements are met.

### D.1 WALKTHROUGH Methodology

Walkthroughs are beneficial for evaluating plans, documentation and other deliverables and serve to orient stakeholders to new products or services. Walkthroughs will be conducted internally and on an as-needed basis. They will be used to:

i. Present plans, documentation, or other deliverables for review and approval.
ii. Review material in the preparation stages.
iii. Critique and report quality deficiencies of plans, processes, and procedures.

Walkthroughs will be scheduled early enough to allow for revisions if problems are identified. Records of these walkthroughs will be maintained, along with issues that were identified and resulting action to be taken. Issues can be accepted "as is" or may require more work. If further discussion on the issue is required, additional walkthroughs can be scheduled.

### D.2 REVIEW Methodology

Reviews are important to assess compliance with a project plan. Specifically, the review process examines products/services from the context of quality factors. Quality factors are categories of product/service attributes. Examples of quality factors include:

• Correctness - The extent to which a product/service satisfies requirements and the stated objectives.
• Timeliness - The product/service is provided when needed.
• Reliability - The extent to which a product functions accurately or service is provided on a consistent basis.
• Productivity - The amount of resources to correctly produce the product or deliver the service, including the relationship between the amounts of time needed to accomplish work and the effort expended.

**(a) REVIEW PROCEDURES**

The QA team will plan and conduct a review according to accepted practices and standards. A typical review procedure includes:

1. Identify reviews in the WBS and project schedule
2. Verify correct review procedures are in place
3. Document review results against quality factors
    3.1 Verify product/service traceability, if applicable
    3.2 Verify product/service against contractual requirements
    3.3 Verify product/service against standards and procedures
4. Validate corrections by scheduling follow-up actions and reviews
5. Verify that defects or errors are tracked to closure
6. Document review results against product validation information
7. Summarize review findings for other technical groups/organizations (e.g., network engineering)
8. Enhance review procedures

**D.3 AUDIT Methodology**

The QA team is responsible for conducting product/service and process audits. The purpose of audits is to identify deviations in process performance, identify noncompliance items that cannot be resolved at the technical support or project management level, to validate process improvement/corrective action achievements, and to provide relevant reports to all management levels.

A product audit is an independent examination of work product(s) to assess compliance with specifications, standards, customer requirements, or other criteria. Product audits are used to verify that the product was evaluated before it was delivered to the customer, that it was evaluated against applicable standards, procedures, or other requirements, that deviations are identified, documented, and tracked to closure and to verify corrections. (IEEE STD 610)

A process audit is a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives. (ISO 1001)

The QA team will perform the following activities when conducting an audit.

1. Define the scope and purpose of the audit within the audit plan.
2. Prepare audit procedures and checklists for the audit.
3. Examine evidence of implementation and controls.
4. Interview personnel to learn the status and functions of the processes and the status of the products.
5. Discuss findings with the technical staff and task leader.
6. Prepare and submit an audit report to technical monitor/senior management

7. Refer unresolved deviations to technical monitor/senior management for resolution.

**(a) AUDIT PROCEDURES**

A typical audit would include the following steps:

1. Clearly understand and adhere to the audit scope
2. Conduct preparation meetings in advance of the audit.
    a. Define areas to be reviewed.
    b. Define review criteria.
3. Conduct an overview meeting in advance of the audit

4. Understand the organization, products, and processes.
5. Conduct the planned meetings, interviews, samples, etc.
6. Review the preliminary findings internally with the audit team.
7. Verify and classify findings from the audit.
8. Validate audit findings with the audit recipient.
9. Prepare the audit report for the audit client.
10. Provide recommendations on request only.
11. Follow-up on corrective action/process improvement.
12. Improve the audit process.

**(b) AUDIT COMPLETION**

An audit is considered complete when:

1. Each element within the scope of the audit has been examined.
2. Findings have been presented to the audited organization.
3. Response to draft findings have been received and evaluated.
4. Final findings have been formally presented to the audited organization and initiating entity.
5. The audit report has been prepared and submitted to recipients designated in the audit plan.
6. Document audit findings and recommendations and report to task/project manager.
7. The recommendation report, if required by the plan, has been prepared and submitted to recipients designated in the audit plan.
8. All of the auditing organization's follow-up actions included in the scope of the audit have been performed.

**D.4 EVALUATION Methodology**

Evaluations examine the activities used to develop/deliver products and services, ultimately determining if the activity is fulfilling requirements. The QA function establishes criteria for an evaluation, verifies the process has been performed, and collects the metrics to describe the actual results of those activities.

**D.5 PROCESS Improvement**

The QA team is responsible for Lean/Six-Sigma process improvement. Process improvement is successful when an effective process emerges or evolves that can be characterized as: practiced, documented, enforced, trained, measured, and improvable. A corrective action plan must be developed when a deficiency in the process is detected. Corrective action should prevent the problem from recurring.

Successive steps for implementing a process improvement approach are:

1. Detection of quality-related problems
2. Identification of responsibility
3. Evaluation of importance
4. Investigation of possible causes
5. Analysis of problem
6. Preventive action
7. Process controls
8. Disposition of nonconforming items
9 Permanent changes

The QA team will analyze the results of their findings in relation to the results of documented processes used to produce products or services. This comparison will be used to determine which process may need improvement and to determine the effectiveness of changes to the processes. This comparison will also be used to identify best practices that should be continued or implemented or other projects.

**E.0 Project Toll gates**

For better manageability and control, each system development effort is organized into logical, related segments called phases. Each phase must be passing its Toll Gate (approved) before the next phase can begin. The decision points (checkpoints) at the end of each phase are called Toll Gates.

**E.1 Definition and players**

A Toll Gate is the vehicle for securing the concurrence (i.e., approval) of designated individuals to continue with the project and move forward into the next phase of development or maintenance. The concurrence is an approval (sign-off) of the deliverables for the current phase of development including the project plan. It indicates that all qualifications (issues and concerns) have been closed or have an acceptable plan for resolution.
The purpose of a Toll Gate is to:

i. Allow all functional areas involved with the project to review the current project plan. This includes, at a minimum, a detailed plan for the next phase, and high level plans for the remainder of the project.
ii. Provide a forum to raise qualifications (issues and concerns) if issues exist that will impact the project plan.
iii. Ensure an acceptable action plan exists for all qualifications raised.
iv. Obtain concurrence on current phase deliverables, and to begin the next phase of development.

The Toll Gate process begins with a notification to the extended project team (e.g., system owner, user point-of-contact, stakeholder, support areas) that a Toll Gate has been scheduled. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates that all known issues have an acceptable plan for resolution.

**(a) CUSTOMERS:**

The customers of the Toll Gate process are those individuals or organizations that will use the output of the process. The primary customers are:

i. Systems engineering team
ii. System Sponsor and Business owner(s)
iii. User point of contact (POC)
iv. Quality Assurance (QA)
v. Information Architecture (IA)
vi. IT Security

**(b) SHARED SERVICE PROVIDERS:**

The following individuals or organizations provide input to the Toll Gate process:

i. System owner
ii. Project manager's manager
iii. User Point of Contact
iv. Quality Assurance Team
v. IV and V Vendor
vi. Support areas

**(c) INPUT:**

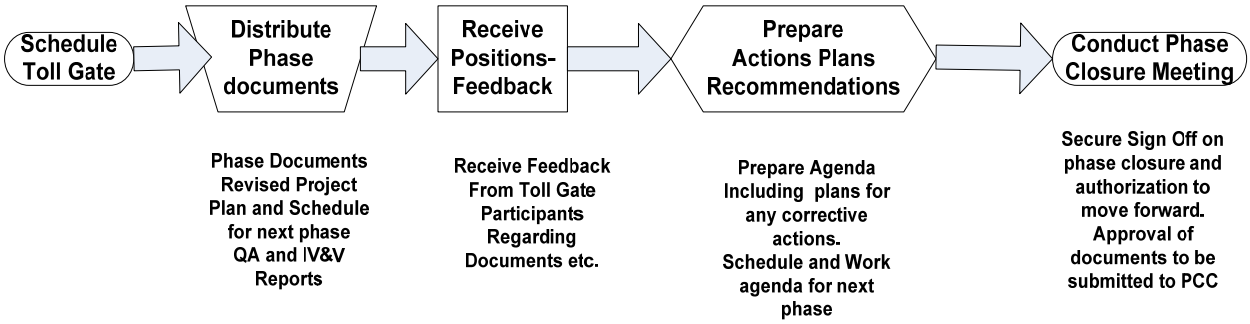
The following are the minimum inputs to the Toll Gate process:

i. System development lifecycle deliverable(s) for that Phase
ii. Initial Project Management Plan (planning phase)
iii. Updated project plan (all subsequent phases)
iv. IV and V Vendor phase assessment
v. Risks and Issues to be addressed
vi. Qualifications from the approvers
vii. Issues that remain open from any In-Phase Assessment (Risk Register)
viii. WBS and Project Schedule for the next Phase.

**E. 2 Toll gate Process Flow**

*Diagram:* The following diagram depicts the Phase Toll Gate process flow.

# NOAALinkProject Toll Gate Work Flow




**(a) PERIODIC:**

i. BRIEF UPPER LEVEL MANAGER
ii. Provide a briefing of status, issues, risk, from the QA perspective

**(b) PLANNING TOLL GATES:**

In the Planning phase, the planned date for Toll Gate each phase of development is identified and documented in the project plan. It is common practice for the Phase Toll Gate date for the next phase to be more specific and the dates for subsequent phases to be high level milestones.

**(c) SCHEDULE TOLL GATE:**

For each phase, as soon as practical, the actual Phase Toll Gate date should be established and the Toll Gate meeting scheduled. Two or three weeks prior to the Toll Gate meeting, a memo is sent to all persons participating in the phase Toll Gate to communicate the following information.

i. Notify participants that a phase Toll Gate has been scheduled. Participants include approvers (e.g., system owner), support area representatives (e.g., Network Engineering), and individuals with a need to know (e.g., contractor management).
ii. Request that the approvers provide feedback one week before the Toll Gate meeting. This will allow the project manager time to work issues and develop action plans prior to the Toll Gate meeting.
iii. Invite participants to attend the Toll Gate meeting. Examples of a memo, distribution list, and response forms are provided in the example section of this guide.

**(d) DISTRIBUTE MATERIALS:**

The current project plan and any other material relevant to the phase Toll Gate should be distributed to the participants along with the memo. Relevant materials include known issues and unplanned deliverables. The participants should be familiar with planned deliverables (e.g. the Requirements document in the Requirements Definition phase) since it is common practice for them to review drafts as they are developed. If this is not the case, then planned deliverables also need to be distributed at this time. The project plan is dynamic typically undergoing changes up to the last minute, and is distributed (together or under separate cover) at the same time as the phase Toll Gate notification memo.

**(e) RECEIVE POSITIONS:**

A position is required from the list of approvers. This position can be concur, concur with qualifications, or non-concur. The implication of each is as follows:

i. Concur - Proceed with the project according to the current plan. An example would be where the approver is not aware of any issues for the current phase.

ii. Concur with qualifications - There are issues or concerns. The project can proceed according to the current plan if an acceptable action plan is developed for each issue by the phase Toll Gate meeting. An example would be where there is no plan for testing an interface to an existing system that is being changed.
iii. Non-concur - There are very significant issues or concerns. The project should not move to the next phase until issue(s) are resolved. An example would be where funding for the project has been withdrawn or not appropriated.

All qualifications (issues/concerns) must be communicated to the project manager. The position response form contains space for this purpose; however other forms of communication may be used.
Responses are not required from individuals in the "Support" or "Information" categories of the distribution list; however, they are encouraged to review the deliverables and provide feedback that may have an impact on the task/project plan.

**(f) PREPARE ACTION PLANS:**

The project manager must prepare an action plan to address each qualification received. Sometimes action plans extend beyond the phase Toll Gate milestone. This is acceptable, if it will not negatively impact the current task/project plan. These action plans are then presented at the phase Toll Gate meeting.

**(g) CONDUCT TOLL GATE MEETING:**

At the Toll Gate meeting, the project manager presents positions from the approvers, along with qualifications raised during the phase Toll Gate process, and issues that remain open from the In-Phase Assessment (ISA). Action plans must also be presented for each qualification or issue. The objective is to demonstrate that all issues have been resolved, the current plan is sound, and the task/project is under control. The results of the meeting are documented in summary form, and include positions, qualifications, action plans, and follow up activity.

**(h) OUTPUT:**

The following are work products produced when the Phase Toll Gate process is executed:
i. Positions from the approvers
ii. Qualifications (if any) from review of the deliverables
iii. Action plans to resolve all qualifications/issues

**(i) MEETING OUTCOME:**

The results of the Toll Gate meeting will determine the next step in the development process.
The task/project will proceed in one of the following directions:

i. Task/project proceeds to the next phase according to plan. There were no qualifications raised.
ii. Task/project proceeds to the next phase according to plan. All qualifications raised had an acceptable action plan.
iii. Task/project cannot proceed to the next phase because significant issues were raised that do not have acceptable action plans to resolve; e.g., funding withdrawn. Schedule a follow-up Toll Gate meeting to review action plans and reach concurrence to proceed or terminate the task/project.

**E.3 QUALITY Assurance:**

Periodically, (e.g. quarterly) the quality assurance analyst will brief the senior or upper level manager (e.g. functional, or contract manager if appropriate) regarding the health and well being of the task/project, from the QA analyst's perspective. This will minimize the possibility of any surprises later and, if issues exist, they can be addressed timely. The briefing should cover the following areas:

i. Task/project status
ii. Issue(s) (if any)
iii. Task/project risk(s)
iv. Action(s) required to remove issues or mitigate risk

Prior to briefing the upper level manager, the QA analyst will brief the task/project manager and the task/project manager's manager. This should be more as a matter of courtesy; there should be no surprises, since these persons are involved with the task/project ongoing. If serious issues exist, the QA analyst will provide a briefing on an unscheduled basis, rather than wait until the next periodic meeting.

**E.4 Responsibility Matrix:**

The following matrix provides an example of the responsibilities of various parties involved in the Phase Toll Gate process.
The table below follows the "RASIC" Approach:

i. R=Responsible
ii. A=Approve
iii. S=Support
iv. I=Inform
v. C=Consult

| Work Products | Project Manager | Support Areas | Quality Assurance | System Owner-Sponsors | User Point of Contact | IV&V | | | |
|---|---|---|---|---|---|---|---|---|---|
| Schedule Toll Gate | R | R | S | | | | | | |
| Distribute Project Plan and Documents | R | I | S | | | I | | | |
| Review Phase Documents | | C | C | C | C | I | | | |
| Concur/Non Concur | | | A | A | A | I | | | |
| Prepare Action Plans | R | I | | | | | | | |
| Conduct Toll Gate Review | R | S | S | A | R | I | | | |
| Monitor Process effectiveness | | | R | | | R | | | |
| Continuous Process Improvement | S | | S | | | I | | | |

Chart based on
AAOCS Information Technology Project Oversight and Compliance organization Roles and Responsibility Excel Template

Appendix Quality Assurance Check Lists

| Completeness Checklist<br><br>Deliverables and Processes | Exists | Reviewer Names & Dates | Approval Names & Dates |
|---|---|---|---|
| **Project Management** | | | |
| Project Planning and Control | | | |
| Scope management | | | |
| Schedule management | | | |
| Cost management | | | |
| Quality management | | | |
| Risk management | | | |
| Issues and action management | | | |
| Change management | | | |
| Procurement management | | | |
| Communications | | | |

| | | | |
|---|---|---|---|
| Status reporting | | | |
| Organization and management | | | |
| Work Plan for current or next phase | | | |

| | | | |
|---|---|---|---|
| PRB Required Deliverables (depends on the phase) | | | |
| Business Case | | | |
| Detailed Implementation Plan | | | |
| Staffing Plan | | | |
| Architecture Plan | | | |
| Operations and Maintenance Plan | | | |
| Operations Staffing Plan | | | |
| Support Agreements | | | |
| Teaming Agreements | | | |
| Maintenance Contracts | | | |
| Operations and Maintenance Budget | | | |
| Value Received | | | |
| Other Typical Deliverables (depends on the phase and project type) | | | |
| Requirements | | | |
| Business analysis | | | |
| Alternatives analysis | | | |
| Design | | | |
| Test plans | | | |
| Others as required by the nature and scope of the project | | | |

Quality Assurance
Management Plan

Yes No Check List Description

___ ___ Are project tracking activities evident?

___ ___ Are project tracking and oversight being conducted?

___ ___ Are all plan reviews conducted according to plan?

___ ___ Are all issues arising from peer reviews addressed and closed?

___ ___ Are status and review meetings conducted according to the schedule?

___ ___ Is a WBS that supports all deliverables/long term projects developed?

___ ___ Is change managed according to the Configuration Management Plan?

___ ___ Have all deviations from standards and procedures documentation been approved?

___ ___ Are project roles and responsibilities defined?

Quality Assurance
Configuration Management

Yes No Check List Descriptions

___ ___ Does a Configuration Management Plan (CMP) exist?

___ ___ Is CMP being used?

___ ___ Does the CMP contain a list of configuration items to be managed?

___ ___ Does the CMP contain change control procedures?

___ ___ Does the CMP contain the process to evaluate changes, including estimates and impact?

___ ___ Does the CMP identify the person/group who can approve changes to the CMP?

___ ___ Has the CMP been added under the configuration management baseline?

(End of Quality Assurance Plan)

**ATTACHMENT B.1: QASP RESPONSIBILITIES MATRIX**
**Contract Management - Quality Assurance Key Actions and Responsibilities Matrix**

This matrix outlines a typical sequence of steps during contract management and the key stakeholder groups and documents involved:

**Legend**
! has responsibility for this step
Q involved in this step (e.g. giving advice, being briefed)
□ gives formal approval
□ Document is used
□ Documents are created or updated (see explanation of this table at the end of Part 2, page 46)

| Action or step: | Acquisition Architecture and Operations Contract Support (AAOCS) | Stakeholders | Contract management team | Specialist advisers | Contractor | Risk plan | Financial plan | Contract – general conditions and provisions | Contract – service specification | Contract – performance management arrangements | Performance reports and invoices | Steering committee reports (or equivalent) | User group news letter or equivalent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Post Contract Award** | | | | | | | | | | | | | |
| Review and update risk assessments | □ | Q | ! | Q | | □ | | | | | | | |
| Finalize any procedural aspects | | | ! | Q | | | | | | | | | |
| Ensure all parties understand contract | Q | Q | ! | Q | Q | □ | □ | □ | □ | □ | | | □ |
| **Performance Matrix** | | | ! | Q | Q | | | □ | | | | | |
| Financial Metrics | | | | | | | | | | | | | |
| Earned Value Management System | | | | | | | | | | | | | |
| LEAN Six-Sigma | | | | | | | | | | | | | |
| Acquisition Information Reporting (AIR) Business Intelligence | | | | | | | | | | | | | |
| Government Performance and Results Act (GPRA) | | | | | | | | | | | | | |
| President's Management Agenda Scorecard | | | | | | | | | | | | | |
| Value Measurement Methodology | | | | | | | | | | | | | |
| **Quality Assurance Surveillance Plan** | | Q | ! | Q | Q | | | □ | | | | | |
| **Ongoing operations (for example monthly)** | | | | | | | | | | | | | |
| Contractor delivers services | | | | | ! | | | □ | □ | | | | |
| Contractor invoices | | | Q | | ! | | | | | | □ | | |

This matrix outlines a typical sequence of steps during contract management and the key stakeholder groups and documents involved:

**Legend**

! has responsibility for this step

Q involved in this step (e.g. giving advice, being briefed)

□ gives formal approval

□ Document is used

□ Documents are created or updated (see explanation of this table at the end of Part 2, page 46)

| **Action or step:** | Acquisition Architecture and Operations Contract Support (AAOCS) | Stakeholders | Contract management team | Specialist advisers | Contractor | Risk plan | Financial plan | Contract – general conditions and provisions | Contract – service specification | Contract – performance management arrangements | Performance reports and invoices | Steering committee reports (or equivalent) | User group news letter or equivalent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contractor provides performance information | | | Q | | ! | | | | | □ | □ | | |
| Contractor Cooperation | ! | | ! | | ! | | | | | | | | |
| Contract manager assesses performance | | Q | ! | Q | Q | | | □ | □ | □ | □ | | |
| Contract manager makes appropriate payments | | | ! | | Q | | □ | □ | □ | | □ | | |
| Contract manager keeps stakeholders informed | Q | Q | ! | | Q | | | | | | □ | | □ |
| Contract manager resolves problems | | Q | ! | Q | Q | □ | □ | □ | □ | □ | □ | | |
| Contract Inspection and Acceptance | ! | | | | | | | | | | | | |
| **Formal contract review (for example 3 or 6 monthly)** | | | | | | | | | | | | | |
| Contract manager collects cyclic performance information (e.g. user surveys) | | | ! | | | | | | | □ | □ | | |
| Contract manager assesses performance | | Q | ! | Q | Q | | □ | □ | □ | □ | □ | | |
| Review and update of risk plan | | | ! | Q | | □□ | | | | | | | |
| Report to senior management on status, issues, recommended actions | Q | | ! | | | □ | □ | | | □ | □ | □ | |
| Complete or schedule actions arising | | Q | ! | Q | Q | | □ | | | | | □ | |
| Keep stakeholders informed | Q | Q | ! | Q | Q | | □ | | | | □ | □ | □ |
| **Post Contract Award** | | | | | | | | | | | | | |
| Review and update risk assessments | □ | Q | ! | Q | | □ | | | | | | | |

This matrix outlines a typical sequence of steps during contract management and the key stakeholder groups and documents involved:

**Legend**

! has responsibility for this step

Q involved in this step (e.g. giving advice, being briefed)

☐ gives formal approval

☐ Document is used

☐ Documents are created or updated (see explanation of this table at the end of Part 2, page 46)

| **Action or step:** | Acquisition Architecture and Operations Contract Support (AAOCS) | Stakeholders | Contract management team | Specialist advisers | Contractor | Risk plan | Financial plan | Contract – general conditions and provisions | Contract – service specification | Contract – performance management arrangements | Performance reports and invoices | Steering committee reports (or equivalent) | User group news letter or equivalent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Finalize any procedural aspects | | | ! | Q | | | | | | | | | |
| Ensure all parties understand contract | Q | Q | ! | Q | Q | ☐ | ☐ | ☐ | ☐ | ☐ | | | ☐ |
| **Performance Matrix** | | | ! | Q | Q | | | ☐ | | | | | |
| Financial Metrics | | | | | | | | | | | | | |
| Earned Value Management System | | | | | | | | | | | | | |
| LEAN Six-Sigma | | | | | | | | | | | | | |
| Acquisition Information Reporting (AIR) Business Intelligence | | | | | | | | | | | | | |
| Government Performance and Results Act (GPRA) | | | | | | | | | | | | | |
| President's Management Agenda Scorecard | | | | | | | | | | | | | |
| Value Measurement Methodology | | | | | | | | | | | | | |
| **Quality Assurance Surveillance Plan** | | Q | ! | Q | Q | | | ☐ | | | | | |
| **Ongoing operations (for example monthly)** | | | | | | | | | | | | | |
| Contractor delivers services | | | | | ! | | | ☐ | ☐ | | | | |
| Contractor invoices | | | Q | | ! | | | | | | ☐ | | |
| Contractor provides performance information | | | Q | | ! | | | | | ☐ | ☐ | | |

This matrix outlines a typical sequence of steps during contract management and the key stakeholder groups and documents involved:

**Legend**

! has responsibility for this step

Q involved in this step (e.g. giving advice, being briefed)

□ gives formal approval

□ Document is used

□ Documents are created or updated (see explanation of this table at the end of Part 2, page 46)

| **Action or step:** | Acquisition Architecture and Operations Contract Support (AAOCS) | Stakeholders | Contract management team | Specialist advisers | Contractor | Risk plan | Financial plan | Contract – general conditions and provisions | Contract – service specification | Contract – performance management arrangements | Performance reports and invoices | Steering committee reports (or equivalent) | User group news letter or equivalent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contractor Cooperation | ! | | ! | | ! | | | | | | | | |
| Contract manager assesses performance | | Q | ! | Q | Q | | | □ | □ | □ | □ | | |
| Contract manager makes appropriate payments | | | ! | | Q | | □ | □ | □ | | □ | | |
| Contract manager keeps stakeholders informed | Q | Q | ! | | Q | | | | | | □ | | □ |
| Contract manager resolves problems | | Q | ! | Q | Q | □ | □ | □ | □ | □ | □ | | |
| Contract Inspection and Acceptance | ! | | | | | | | | | | | | |
| **Formal contract review (for example 3 or 6 monthly)** | | | | | | | | | | | | | |
| Contract manager collects cyclic performance information (e.g. user surveys) | | | ! | | | | | | | □ | □ | | |
| Contract manager assesses performance | | Q | ! | Q | Q | | □ | □ | □ | □ | □ | | |
| Review and update of risk plan | | | ! | Q | | □□ | | | | | | | |
| Report to senior management on status, issues, recommended actions | Q | | ! | | | □ | □ | | | □ | □ | □ | |
| Complete or schedule actions arising | | Q | ! | Q | Q | | □ | | | | | □ | |
| Keep stakeholders informed | Q | Q | ! | Q | Q | | □ | | | | □ | □ | □ |

**Note:** the above action and responsibility summary is indicative of common arrangements. Details will vary depending on the entity's particular circumstances and the nature of each contract.

Quality Assurance Surveillance Plan
Performance Matrix - contract

QAP - contractor
Value Measurement Methodology - contract
Earned Value Management System – contract
LEAN Six-Sigma - contract
Acquisition Information Reporting (AIR) Business Intelligence – contract
Government Performance and Results Act (GPRA) - contract
President's Management Agenda Scorecard - contract

**Quality Assurance Surveillance Plan (QASP) Library Strategic Plan 2009 – 2019**

**QASP Vision**

The NOAALink QASP Library provides dynamic and innovative access to information resources and services. With the Acquisition Architecture and Operations Contract Support (AAOCS)
AAOCS Information Technology Project Oversight and Compliance organization, it is part of an increasingly integrated Contract, Task/Project Management, Technology, Information and Mission Support. The quality of its services is enhanced through partnerships with stakeholders, industry, business, and external organisations.

**Strategic Plan**

The Library frames its Strategic Plan according to the Balanced Scorecard perspectives of Stakeholders, Financial, Internal Processes and Growth. The Library's Strategic Plan comprises three-yearly Strategic Objectives and a series of Annual Action Initiatives which assist the AAOCS to achieve its Strategic Objectives. The AAOCS' performance is measured by Key Performance Indicators (KPIs).

**Annual Action Initiatives 2009**

Annual Action Initiatives are high-profile actions the AAOCS will undertake during the current year in pursuit of the longer-term Strategic Objectives. They may be entirely new activities for the AAOCS or they may be initiatives to improve ongoing activities in a major way. Action Initiatives change from year to year as a result of the AAOCS' annual strategic planning.

**Key Performance Indicators 2009**

The Library uses the Balanced Scorecard as its quality management framework, integrating its performance measurement program and other quality initiatives into a comprehensive planning tool. Key Performance Indicators (KPIs) are used to measure the AAOCS' progress toward, and contract performance against, its Strategic Objectives.

Annual Action Initiatives 2009

Client Perspective

| Strategic Objectives 2009-2013 | Action Initiative 2009 |
|---|---|

Financial Perspective

| Strategic Objectives 2009-2013 | Action Initiative 2009 |
|---|---|

Internal Processes Perspective

| Strategic Objectives 2009-2013 | Action Initiative 2009 |
|---|---|

Growth Perspective

| Strategic Objectives 2009-2013 | Action Initiative 2009 |
|---|---|

Key Performance Indicators 2008

Client Perspective

| Strategic Objectives 2009-2013 | Key Performance Indicators 2009 |
|---|---|

Financial Perspective

| Strategic Objectives 2009-2013 | Key Performance Indicators 2009 |
|---|---|

Internal Processes Perspective

| Strategic Objectives 2009-2013 | Key Performance Indicators 2009 |
|---|---|

Evolution and Growth Perspective

| Strategic Objectives 2009-2013 | Key Performance Indicators 2009 |
|---|---|

(End of Responsibility Matrix)

# ATTACHMENT C

# DOWNSELECT REQUIREMENT 1

# MANAGED INFORMATION SECURITY SERVICES (MISS)

## ATTACHMENT C: DOWN-SELECT 1 – MANAGED INFORMATION SECURITY SERVICES (MISS)

### CONTRACTORS CAPABILITY

The intent of NOAA will be to obtain the services of a single "Shared Service Provider" team to develop, implement, operate, enhance, and assure NOAALink's information security. This SSP will assist NOAA with meeting its IT security goals consistent with the NOAA Strategic IT Plan 2008-2015 Page 15 and as described below.

**IT Goal Description:**
Implements policies, standards, and procedures for NOAA IT systems which are consistent with government-wide laws and regulations and information assurance standards to adequately protect NOAA's information systems, whether maintained in-house or commercially, and prevent any unplanned disruptions of processing which would seriously impact NOAA's mission.

- IT Goal Objectives To protect NOAA from information system intrusions, and prevent compromises that put NOAA at risk for any disruption of operations or unauthorized access to information resources.
- IT Strategic Objectives Achieve and maintain Certification and Accreditation (C&A) for all NOAA IT systems
- Full compliance with the Federal Information Security Management Act (FISMA) and National Institute of Standards and Technology (NIST) Guidance Special Publication 800-53A
- Employ an affordable and repeatable certification and accreditation process
- Employ a centralized and standardized certification and accreditation process
- Integrate the use of standard security controls, verification techniques and procedures
- Develop evidence to support informed, risk-based accreditation decisions by senior agency officials
- Develop or enhance appropriate technical, personnel, administrative, physical, environmental, and telecommunications safeguards in IT systems
- Develop or enhance an enterprise-level robust Patch Management process and system
- Established and maintain an incident response and intrusion capability
- Deploy regional Intrusion Detection Systems (IDS)
- Encrypt Laptops and other portable devices
- Secure Personally Identifiable Information (PII)
- Fund IT Security at 10% of systems life cycle costs
- Implement Homeland Security Presidential Directive (HSPD) -12

It is envisioned that the SSP will achieve these objectives utilizing the Federal Enterprise Architecture Security and Privacy Profile (FEA SPP) methodology. The Federal Enterprise Architecture Security and Privacy Profile (FEA SPP) offers a business-driven approach to turning the NOAALink requirements into effective and efficient solutions by:

- Documenting security and privacy requirements and capabilities using the Federal Enterprise Architecture framework.
- Leveraging system level security and privacy activities.

- Defining a governance approach to discover and reconcile disparate mission, security, and privacy requirements.

It is envisioned that the SSP will leverage the FEA SPP methodology to ensure its usability and applicability to NOAALink. Leveraging the FEA SSP methodology leads to meaningful changes in NOAALink's business processes and documents a step-by-step, multi-disciplinary approach to ensure that each of NOAA's line offices' (lines of business) security and privacy investments meet its business requirements, are reflective of federal policy, and are cost-effective. The Office of Management and Budget and the Federal Chief Information Officers Council developed the FEA SPP.

The assessments of policies and guidance related to enterprise architecture, security, privacy, and capital planning documents ensure that the FEA SPP is relevant and complementary to current activities.

The FEA-SPP Supports:

Compliance - Ensured compliance with relevant legislation, regulation, and related guidance pertaining to security and privacy within an agency

Planning - Ensures security and privacy are considered early in the planning cycle and throughout the life cycle of the EA and program/system

Modeling - Promotes the use of common and efficient security and privacy services and techniques essential for trust modeling

Forecasting - Promotes improved forecasting of cost estimates for IT budgets, especially relating to implementation of security and privacy

Architecture - Enables the agency to ensure security and privacy are addressed in the enterprise architecture

Efficiency - Encourages consistency and efficiency within an agency and across government

The SPP Methodology delineated below applies existing enterprise architecture(s) to develop an enterprise view of security and privacy.

| | **Objectives** | **Benefits** |
|---|---|---|
| Stage 1: | Fully identify program and enterprise-level security and privacy requirements, including previously unknown requirements.<br>Outcomes of Stage<br><br>Fully identify program and enterprise-level security and privacy capabilities, including current and planned future requirements.<br><br>Document requirements and capabilities in an agency's enterprise architecture using a nomenclature that is common across the Federal government. | Develop an enterprise perspective on security and privacy needs and capabilities |
| Stage 2: | Identify gaps between requirements and current or planned capabilities.<br><br>Identify opportunities to increase interoperability between or reduce costs of current or planned capabilities.<br><br>Propose solutions to address gaps or improve capabilities based on an informed trade-off analysis of alternatives. | Recommend security and privacy solutions with a better understanding of enterprise-wide mission impacts. |
| Stage 3: | Evaluation of individual proposals so that each fully reflects the outputs of Stages I and II. | Optimize the security and privacy investment mix in a manner that best meets enterprise-wide |

| | | |
|---|---|---|
| | Selection of individual proposals that best support the business, security, and privacy needs of the organization.<br><br>Documentation of the updated to-be architecture and sharing of reusable components. | mission, security, and privacy requirements. |

NOAALink seeks a SSP/Managed Information Shared Services provider (MISS) that can successfully incorporate the Security Privacy Profile methodology, Strategy, Business, and emerging Technologies to deliver information security services to meet the following NOAALink requirements; and Information Security and Risk Management Requirements in support of Continuity of Operations, Disaster Recovery, and Security Planning (including information assurance).

**Security Services**

Security service requirements traditionally include providing support for security planning and information assurance. This may include support for development, administration, and ongoing execution of a security program for all NOAA facilities and systems. Security services must be planned, developed, implemented, tested, and executed in accordance with all the Service Areas included in this requirements document. Specific areas for support include physical security, security firewall, security intrusion detection, and security penetration. Reference to and compliance with all current and future Federal policies, guidelines, and recommendations when offering IT security solutions, services, software, and or hardware is required.
Effective IT security stands on security policies and architecture, security infrastructure, and security administration:

1. Security Administration – Effective execution and implementation of security planning and policy development enables satisfactory returns on enterprise investment in security activities. Sound security administration focuses on operational technologies and best practices that maintain secure access to applications and resources and on ensuring the integrity of system definitions and configurations.

2. Security Risk, Organization, Policies and Architecture - Effective IT security risk management identifies exposures and potential costs so that security policies, and overall security architecture, can be developed to minimize these exposures and costs. Security policies should also enable an enterprise to take the greatest amount of risk necessary to support business requirements. Effective security risk management is not fully enabled until security policies and architectures are implemented and supported by effective security governance model. Enterprises must determine the aspects of security to be centralized, the implementation of regional or departmental aspects of security, the methods to obtain funding, and the ways IS organizations and business units will be accountable for security.

3. Security Infrastructure – Security infrastructure is made up of the tools, technologies and tactics that are deployed to protect the network perimeter and internal resources. Traditional security infrastructure focuses on hardening the perimeter, but internal resources are now increasingly exposed to external access by outward-facing applications require a hardened interior and a layered approach to security

Continuity of Operations and Disaster Recovery Services
Disaster recovery and continuity of operations planning addresses the planning for and managing disasters, crises, and contingencies by preventing them whenever possible and managing their effects when they cannot be prevented by implementing documented recovery procedures to allow for resumption of business operations as expediently and as economically as required. Managing these threats to mission effectiveness requires planning to increase the rapidity and effectiveness of NOAA program and project teams to deal with these conditions if, and when, they occur.

The NIAE Portal is NOAALink's primary access point. From this portal, a user can navigate to other applications, associated technologies, communities of interest (i.e., acquisition and finance), hosted services, and locate information (i.e., strategic sourcing catalog) or complete transactions (i.e., Procure to Pay).
Portal access and NOAALink transactions must be made secure.

The selected contractor, at the direction of the NOAALINK contracting officer, will be responsible for enhancing the offerings that stakeholders will securely access through the portal. As stated the purpose of this initiative is to provide NOAALink with the information assurance necessary to knowledgeably engage MISS providers, and to make informed use of their security services. Decisions regarding the MISS provider will be based on business objectives and desired security services. The outcome of this initiative will be a set of information security practices intended primarily for chief information officer, chief financial officer, contracting officer/contracting officer's representative (responsible for the selection), information technology manager, chief security officer, and technical staff (system and network administrators) responsible for day-to-day operations, oversight and ensuring MISS provider performance and compliance with NOAALink's requirements.

These practices cover:

- The enterprise business risk evaluation and accompanying decision to outsource selected security services and engage the NOAALink MISS provider
- Expanding and renewing outsourced security services
- Dealing with an MISS provider being acquired by another company or going out of business
- MISS consulting services such as security architecture development and implementation, risk assessments, and forensic investigations. These services typically rely heavily on specific business objectives and processes.
- Business, technical, and contractual considerations beyond those for engaging a MISS provider so as to ensure information security.

These practices require implementing security practices in three general areas:

1. Engaging a MISS provider
2. Managing the relationship with an MISS provider
3. Terminating an MISS provider relationship

This Managed Information Security Services (MISS) Request for Qualified Contractor (RFQC) is intended to elicit proposals from qualified Managed Information Security Service Providers (MISSPs) with the skills and experience to meet NOAALink's security service requirements. MISSP response's should clearly describe the desired services offered that satisfy requirements. This includes business attributes and service attributes to ensure that both NOAALink stakeholders and provider are satisfied with the level of contracted service, as well as the security practices that the stakeholder expects the provider to deploy in the operational shared security service environment.
The presence of such practices instills confidence that the provider is running a secure operation, can successfully protect stakeholder enterprise architectural assets, and is "practicing what it preaches." This RFQC is based upon the anticipated relationship with the provider and the service(s) to be provided. This RFQC is designed to reflect NOAA's security policies and the expectation that prospective providers provide responses that outline cost-effective services that comply with these policies. The NOAALink teaming approach creates a more competitive environment because prospective offerors must demonstrate value beyond what is available currently "in-house." RFQC respondents are instructed to include any past experience meeting requirements defining stakeholder's roles and responsibilities that will help ensure a successful partnership. This applies to business attributes, service attributes, and security practices. Additionally, prospective MISSP should indicate any ways in which they are unable to comply with a specific requirement. Conflicts could exist because of regulations, legal requirements, policies, or other considerations. If the MISSP cannot comply with one or more of the requirements, they should offer alternatives, if possible. This is needed to assist NOAALink stakeholders to understand the level of risk in awarding components/segments of managed information security service. Indentifying and understanding these help stakeholders ensure that the costs to procure, operate, and manage provider service delivery, as well as
the costs to ensure compliance with the Service Level Agreement (SLA), do not exceed the anticipated benefit.

NOAALink Security Practices:

Business attributes are one element of NOAALink stakeholder requirements.

They comprise characteristics, policies, processes, and procedures that need to be described in the RFQC response and include

- Viability (VI)
- Stakeholder Satisfaction (CS)

- Relationship with Other Parties (RO)
- Independent Evaluations (IE)
- Personnel (PR)
- Asset Ownership (AO)
- Contractual Exceptions, Penalties, and Rewards (CE)
- Service Level Agreement (SLA)
- Exit Strategy (ES)
- Site Visit (SV)
- Implementation Plan (IP)
- Points of Contact (PC)

Viability (VI)

- Viability guidelines are organized into six categories:
- VI1: Financial
- VI2: Services Offered
- VI3: Organizational Breadth
- VI4: Investment Strategies
- VI5: References

VI1: Financial

1. Provide your most recent annual report and financial statement and those of your key investors if they are not publicly available.
2. Indicate the total number of active security service contracts, indicating the percentage of multi-year and single year contracts. Describe your annual rate or percentage of new, renewing, and terminating contracts.
3. Provide information regarding any recent mergers and acquisitions, initiated by your organization or initiated by others.

VI2: Services Offered

1. Name the markets or industries you target for each of the services you offer (e.g. GSA Networx, Cisco, etc.).
2. Describe what percentage of annual revenue for the previous fiscal year derives from each requested service. Indicate the number of service engagements, by requested service, which your company has conducted for stakeholders over the past year. Indicate the average size of the stakeholder's network (small, medium, large). For example, state "Vulnerability assessment services: 10, Large." (e.g. GSA Networx, Cisco, etc.)
3. What percentage of your staff is involved in direct service delivery and managing current stakeholder accounts?

VI3: Organizational Breadth

1. Is your current business (including your channel (reseller) partnerships) regional, national, or international? Describe your approach and your capabilities to provide global support, including, but not limited to, worldwide locations, expertise in national languages, knowledge of national and local laws that affect requested services, and relationships with national and local law enforcement agencies.

VI4: Investment Strategies

1. Describe your approach for investing in technology and research and development to increase operational efficiency while keeping up with the rapidly changing cyber security threat environment. What are the highest priority initiatives in your company that affect the requested services? What is your company's vision and direction for currently offered services as well as plans for additional services and support of new technologies? (e.g. GSA Networx, Cisco)

VI5: Past Performance References

1. Provide three references from stakeholders
   - with similar types of organizations (size, market segment)
   - with similar levels of infrastructure complexity and capacity requirements that are currently using the services requested in the NOAALink RFP/SOO
2. Include, for each reference: the company name, contact name, contact title, phone number, email address, types of service, and dates of service.

Stakeholder Satisfaction (CS)

- CS1: Describe your process and mechanisms for handling stakeholder inquiries and reported problems.

- CS2: Describe customer service responsiveness, hours of staff availability, and available communication mechanisms (e.g., written, verbal, electronic, face-to-face).
- CS3: Describe how you measure and report stakeholder satisfaction, including frequency.
- CS4: Describe how satisfaction deficiencies are addressed and resolved (in your service level agreement or elsewhere).
- CS5: Describe secure communications mechanisms (e.g. secure voice, fax, encrypted email, pager) to use when communication should be private.
- CS6: Include both national and international service support.

Relationships with Other Parties (RO)

- RO1: Provide a complete list and brief description of your channel partners, resellers, vendors, subcontractors, and other providers (tiered providers including ISPs) who may be involved in delivering the requested services. Describe your due diligence process for engaging in these types of business relationships.
- RO2: Where do you plan to use tiered providers to satisfy stakeholder requirements? In what capacity do you plan to use them? What mechanisms are in place to allow the stakeholder to verify that these requirements are met? Requirements include business attributes, service attributes, and security practices.
- RO3: Indicate how NOAALink requirements flow to all potential tiered (dual carrier) providers and how requirements satisfaction is determined.
- RO4: The stakeholder identifies any requirements or restrictions they have when outside parties (providers, tiered providers) connect to NOAALink's Value-Added Network or their network (i.e., Networx).
- These may include:
    - Disallowing certain protocols, requirements for or restrictions on communications or encryption methods, confidentiality requirements, and specific storage requirements for security data.

- RO5: Is NOAALink free to establish a direct relationship (either informal or contractual) with your potential tiered (dual carrier) providers when they are involved in delivering the requested services?
- Indicate if NOAALink is free to contact these organizations and, if so, provide contact information.
- RO6: When stakeholder information is shared with and used by potential tiered (dual carriers) providers, what procedures do you have in place for protecting this information (SPP)?
- RO7: How are security risks associated with potential tiered(dual carriers) providers defined and monitored?
- RO8: What security research organizations do you partner with to stay informed about new threats and vulnerabilities (e.g. CERT, NIST, OMB, GSA, etc.)?
- RO9: Describe any user groups associated with requested services and describe your practice of communicating with stakeholder through such groups.

Independent Evaluations (IE)

- IE1: Describe how you assess and manage risks to information security, periodically and in response to major changes in technology, internal and external threats, or your systems and operations. This includes regularly conducting information security risk evaluations or contracting with an outside organization to perform them. Describe how relevant results from risk assessment and management activities are communicated to the stakeholder.
- IE2: Identify internal and external service risks that could lead to unauthorized disclosure, misuse, alteration, or destruction of stakeholder and stakeholder/customer information assets. Describe your risk mitigation approach.
- IE3: Identify the third party organization(s) responsible for conducting your latest security risk evaluation, security audit, and vulnerability assessment. Describe how often this is done and how it is performed. Include the most recent results and the date of these results.
- IE4: Indicate if NOAALink is free to contact the evaluating organization(s) and, if so, provide contact information.
- IE5: Indicate your agreement to participate in and deliver results from a periodic full security evaluation performed by a mutually agreeable independent organization

Recent results that you provide may serve in lieu of this requirement.

1. Do you require or obtain independent evaluations from your potential tiered (dual carrier) providers?
2. Are you willing to share these evaluations with NOAALink?

- IE6: If applicable, demonstrate service compliance with or recent audit results for relevant NIST/FIPS audit and accountability publications and Federal standards FIPS 200- Security Controls for Federal Information Systems, FIPS 198- The Keyed-Hash Message Authentication Code(HMAC), the SP-800-xx Series

Personnel (PR)

- PR1: How do you screen potential employees? Describe the level of background checks performed by job position (role, responsibility, authority), particularly for positions handling sensitive stakeholder information.
- State your policy on hiring those with an established history of successfully breaking into computers (often referred to as hackers).
- PR2: For key personnel who will provide services specified in the NOAALnk RFP/SOO, how many years of experience do they have and in what fields? Include resumes for key personnel and for key executives and managers who will have oversight responsibility for this contract.
- PR3: Provide organizational and staff member accreditations and certifications in networking elements, security, operating systems, auditing, evaluation, and security application software testing.
- Describe how these credentials will be used to provide the requested service.
- PR4: What professional (post degree) training and certifications (CISP) do your security analysts and SOC (Security Operations Center) personnel have? How recent are these?
- PR5: What is your annual staff retention rate for key positions?
- PR6: Are staff members assigned to a stakeholder as they are available or are they permanently assigned for the duration of the contract?
- PR7: Do new staff members receive initial training and do all staff members receive periodic refresher training on the provider's and customer's security policies and procedures?

PR8: NOAALink needs to determine the level of knowledge the provider needs and determine the appropriate level of authority the MISS provider needs to access stakeholder data (SPP). Therefore, answer the following questions:

1. Are selected MISS provider staff members required by the MISS provider to sign confidentiality or nondisclosure agreements?
2. Are specific MISS provider staff members (including consultants) bonded? This assumes bonding requirements and levels are specified in the provider company policy.
3. Which MISS provider staff member roles have privileged access to stakeholder data, software, and hardware? What is the justification for such access?

PR9: What security procedures are invoked when a MISS provider staff member terminates their employment?
PR10: Do you require the above personnel information from your potential tiered (dual carrier) providers? If so, are you willing to provide us with this information?

Asset Ownership (AO)

- AO1: Identify the owner of assets used in providing the service (systems, software, source code, processes, concepts, etc.). NOAALink assumes the MISS providers either manage their own systems or manage equipment that the stakeholder's owns. Stakeholder's ownership may cost more in the short term, but may reduce transition issues when/if the contract terminates.
- AO2: Is all intellectual property created by the MISS provider on behalf of the stakeholder and in the course of the contract owned by the stakeholder? This includes reports, logs, audit and evaluation results, and the like. Specify any stakeholder-based or stakeholder derived intellectual property that could remain under provider ownership.
- AO3: If you propose using proprietary assets (policies, processes, applications software), describe how the stakeholder is not placed at risk when the contract terminates (with respect to continued use of these assets).
- AO4: Describe all software and hardware license and patent issues that may relate to delivering requested services and how such assets are transitioned upon contract termination.

Contractual Exceptions, Penalties, and Rewards (CE)

- CE1: Provide your standard language for contractual exceptions, penalties, and rewards.

Service Level Agreement (SL)

- SA1: Provide your standard SLAs (e.g., GSA Networx).

- SA2: Does your SLA allow for stakeholder-specific requirements for performance and remediation (restoration of service, customer service, response time) [e.g. GSA Networx]?
- SA3: Describe stakeholder and MISS provider responsibilities for monitoring and verifying SLA metrics (QASP).
- SA4: What are the financial implications of SLA non-compliance? Include descriptions of how credits are applied to stakeholder accounts or other means of assuring stakeholder are properly charged for the service provided vs. the service negotiated. (e.g., GSA Networx, QASP, etc.)
- SA5: Describe the process by which stakeholders may tailor or amend your SLA. (e.g., GSA Networx, QASP, etc.)

Exit Strategy (ES)

- ES1: Provide your standard contract termination language and provisions.
- ES2: Indicate the conditions under which contract termination may occur.

Site Visit (SV)

- SV1: Provide an example of your MISS provider agreement for the stakeholder to conduct a site visit, including all physical facilities involved in service delivery such as the SOC and areas where stakeholder data are secured.
- SV2: NOAALink assumes the following: During site visits, reviews and demonstrations of MISS provider capabilities as represented in the proposal will be verified and additional scenarios or requirements may be examined. Any additional requirements will be communicated in writing prior to such a visit.
- SV3: All expenses incurred by the provider during the site visit are the provider's responsibility.
- SV4: Specify any limitations or constraints on site visits.

Implementation Plan (IP)

- IP1: Provide your high-level implementation plan for installing and operating requested NOAALink security services. Include a notional timeline and estimated duration. Include your service transition approach, from the stakeholder or another provider, if applicable.

Service Attributes

Service attributes are a second element of stakeholder requirements. They describe the quality of service to be provided and levels of service performance to be met. Service attributes

Include:

- Top-level Security Requirements (SR)
- Service Availability (SY)
- Service Architecture (ST)
- Service Hardware and Software (HS)
- Service Scalability (SS)
- Service Levels (SL)
- Reporting Requirements (RR)
- Service Scope (SP)
- Cost (CO)

To qualify for consideration, the MISS provider's proposal must demonstrate how the MISS provider will ensure compliance with all service attributes during the execution of the NOAALink contract.

It is assumed that NOAALink via GSA Networx Universal has defined service availability and performance requirements such that the stakeholders can make an effective comparison between different providers (e.g., the timeliness of critical alert reports, service uptime percentages). Service attributes are presented below as a series of topical statements and questions.

Top-level Security Requirements (SR)

- SR1: The MISS provider asserts and is able to satisfactorily demonstrate that stakeholder asset (software, hardware, data) confidentiality, availability, and integrity are assured in

the process of delivering service (SPP).

- SR2: Stakeholder privacy is protected to include but not be limited to identified stakeholder data, security posture, vulnerability status, and attack status (SPP).
- SR3: The provider ensures that specified stakeholder data resides only in the stakeholder's designated location to satisfy applicable federal data privacy guidance/directives (SPP).
- Provide details of how these requirements are met and are addressed in accordance with industry best security practices.

Service Availability (SY)

- SY1: Stakeholder requirements for service availability are likely to be 24 hours a day, 7 days a week, 365 days a year (24x7x365) with 99+ percent uptime, measured as experienced by the stakeholder.

This means that service availability is not measured and demonstrated at the individual provider service asset level (systems, networks, databases, applications, personnel, etc.), which has no meaning for the stakeholder.

- SY2: Service uptime figures are determined using risk evaluation and analysis, determining the criticality of services and systems being provided. Consider the following guidelines:
- 99 percent uptime = 87.6 hours unavailability or degraded capability per year, or 7.3 hours per month
- 99.9 percent uptime = 8.8 hours unavailability or degraded capability per year, or approximately 44 minutes per month
- 99.99 percent uptime = 52 minutes of unavailability or degraded capability per year, or 4.4 minutes of downtime per month
- 99.999 percent uptime = 5.2 minutes of unavailability or degraded
- capability per year, or about 25 seconds per month

State a figure for the maximum acceptable period of continuous unavailability or degraded capability if this is different from the cumulative figures shown above. (e.g., GSA Networx)

- SY3: Describe how you calculate service outage times. Address the following outage conditions:
  1. regularly scheduled time periods when the service is not available
  2. how additional service volume created by a new stakeholder affects both stakeholder and provider system performance and availability
  3. interruptions in local/regional utility service (for example, communications, gas, electric, sewer, water)
  4. how scheduled service software and hardware maintenance affect service availability, and whether or not this is acceptable
- SY5: Provide historical statistics on system availability and response times for the requested service (e.g., GSA Networx).

Service Architecture (ST)

Using the SPP methodology and incorporating the NOAALink framework, the architectural requirements and alternatives are defined. Therefore, before the services are deployed requirements must include such considerations as bandwidth requirements, the need for a demilitarized zone (DMZ), the location of service systems in the network, and connectivity between stakeholder and provider networks. The stakeholder can express their requirements in more detail if they do so knowing the value added network architecture they will use or is provided by the MISS provider.

The stakeholder can then more easily determine if proposed solutions meet the stakeholder's architecture requirements. Conversely, if the stakeholder does not have the capability to define such requirements, they can consider contracting for this support as a separate service.

Regardless, the following presumes the existence of an initial service architecture that is used as the basis for defining requirements.

ST1: Describe, using text and graphics, how your services will be implemented to include, but not be limited to:

1. Remote administration. Service hardware and software are located on our networks. Your SOC connects to this equipment via secure means (such as VPN or dedicated lines).
2. Co-location. Your security devices (such as managed firewalls and web servers) are placed within your data center. All access to and from our networks pass through your infrastructure, potentially including all Internet access. For this alternative, do you run our (Value-Added Network) service on a dedicated server?
3. If not, how are our data, systems, networks, and performance protected from exposure to other customer/stakeholders?
4. If on-site do you offer permanent, on-site augmentation of our security staff and hardware/software?
5. Physical location of all architectural assets (such as SOCs), including international locations?

ST2: How likely is it that the architecture you are designing and implementing is going to change over the short term (six to twelve months) and over the long term (one to five years)? For example, if we are creating business relationships that require
extranets or other network configuration changes to accommodate new partners, how do you account for this? Can your service architecture be easily changed with minimal impact to our ongoing operations and performance?

ST3: What effect will your services have on our operational network, if any? Are you able to monitor our network configuration as it exists today with no performance impact?

ST4: How do your monitoring devices, sensors, and servers affect other security equipment or software already in place at our sites?

ST5: Describe how your service solution integrates/interoperates with our in-house security devices and technologies. It is desirable to achieve a positive return-on-investment (ROI) on existing approaches to the extent possible.
ST6: Describe your capability and approach for managing multi-vendor equipment on the same network, if applicable to your solution (e.g., GSA Networx, dual carrier).

What flexibility do you have if, the stakeholder does not have specific requirements for what services they want, how many of each they want, and their desired location (for example, IDS on four network segments, managed firewalls on two network segments). How would you assist the stakeholder to accurately identify their needs and include sufficient information so that you recommend a service architecture that best meets stakeholder security needs?

ST7: How are your service systems managed?

- Do you use the Simple Network Management Protocol (SNMP) to aid in systems management? (If so, consider these solutions carefully as some implementations contain documented vulnerabilities (CERT).
- Are your management tools hardened and secured? (Secure Asset Configuration).
- Would the traffic between your SOC and our systems be encrypted? Where do the encrypted tunnels terminate (assuming there are tunnels between the networks)?

ST8: For service installation:

- Are your service systems built and tested in a non-production (test or lab) environment? Are they built and tested in a production environment?
- Do you install service systems at the stakeholder's convenience?
- What is the expected stakeholder downtime for service installation? Do you require the stakeholder's network to be down for a certain number of hours or days in order to implement the new service system(s)?
- Is there a trial period during which you provide on-site or immediate on-call support?
- Are there any backdoors into service systems? Do you use modems for remote access administrative purposes? If so, are backdoors and modems disconnected or disabled when not in use? How is this demonstrated?

ST9: Documentation: Describe your process for keeping the following items current and making them available for stakeholder review.

- Diagrams of the service architecture for each physical site, including all hardware and software. If this does not include the network architecture and topology, then include this as a separate diagram.
- An inventory of all service software including software developed by the provider. Describe the vendor, release levels, patch levels, and any other characteristics that distinguish the configuration.

Service Hardware and Software (HS)

- HS1: Describe the products, technologies, and operating systems that you use to deliver requested services. Some security service providers lock a stakeholder into a single technology, product, or operating system. They are, in essence, resellers for that configuration. The stakeholder needs to ensure that a MISS provider can operate using a range of solutions (i.e., GSA Networx).
- HS2: Describe the products, technologies, operating systems, and architectures that you are able to monitor. Again, the MISS provider needs to demonstrate flexibility.
- HS3: Demonstrate that new products and technologies can be easily integrated into or made interoperable with the MISS provider's hosting operational environment.
- HS4: Demonstrate that MISS provider staff skills and expertise are sufficient to support service software and hardware.
- HS5: Describe the practices you deploy to secure your security services software and hardware, both electronically and physically.

Service Scalability (SS)

- SS1: How scalable are your services to handle new stakeholder geographic locations (including potentially international locations), growth in stakeholder business transactions and corresponding network traffic, and increasing and changing cyber security threats?
- SS2: How much advance notice of the need for growth in service scale do you require?
- SS3: Are there any limitations in the rate of expansion that can be accommodated and penalty costs if forecasts expand or decrease beyond a specific range?

- SS4: The stakeholder needs to provide their capacity and growth requirements for the period of contract performance that will affect requested services. This may include such projections as growth over time in number of users, network traffic (including public web site access), and the number of servers to be monitored. Do you employ any capacity planning modeling capability (i.e., OPNET)?

Service Levels (SL)

SL1: Describe the levels of available service, the features of each level, and decision criteria that a stakeholder may use to select a desirable level of service.
SL2: Propose pertinent measurements that can be expressed in stakeholder business performance terms based on your experience with other customer/stakeholders.
SL3: Describe relevant measurements and measurement ranges for required work that you have performed such as service speed, response times, and accuracy.
SL4: Describe how you demonstrate and assure the quality of the delivered service.

Examples of how a MISS provider might specify service levels include:

- How to determine the appropriate service uptime level given the choices specified under Service Availability above.
- The range of intrusion response services to include analysis, internal and external communication with affected parties, collecting and protecting information including evidence, limiting the damage caused by the intrusion by containing it, eliminating all means of intruder access, returning systems to normal operation, and conducting an intrusion post mortem meeting to discuss lessons learned, implementing identified improvements such as removing vulnerabilities, and reducing the likelihood of similar attacks recurring.

Levels of reported intrusion priority such as high, medium, and low (defined below):

- High indicates that a system or application is no longer useable and this is having a significant impact on the business or on infrastructure security
- Medium indicates that a system or application is useable with a work around but is executing in a severely degraded mode. The business and security impact is moderate.
- Low indicates that a system or application is experiencing some degraded performance and the impact to business and security is low.

With these agreed to definitions, the stakeholder and MISS provider can negotiate a level of service and its corresponding response and price.
MISSP response's should clearly describe the process that would be used to negotiate SLAs and the desired services offered that satisfy requirements. RFQC respondents are instructed to include any past experience negotiating SLAs and meeting requirements defining stakeholder's roles and responsibilities that will help ensure a successful partnership. Additionally, prospective MISSP should indicate any ways in which they are unable to comply with a specific requirement.

Reporting Requirements (RR)

RR1: What standard and customized reports are included in your cost proposal? How frequently are these reports provided? Can they be provided immediately upon stakeholder request? Reports should detail, at a minimum: all policy modifications, all configuration changes, a prioritized list of security alerts, and information on new security threats including those that may require policy changes.
RR2: Provide a range of sample reports and a description of how they are used by both the stakeholder and the provider.
RR3: Are reports available for specific network segments/devices for in-depth analysis or segment/device groups for overall trend analysis?
RR4: Describe the types of reports you typically produce to enhance our knowledge of our security posture including, but not limited to, trend analysis, performance planning, capacity planning, and analyzing the cost-effectiveness of your services.
RR5: How are reports typically delivered? Do you provide real-time access to network and system security status (often available as a secure web interface)? Do you offer timely security event and service outage reporting?
RR6: How is report confidentiality protected?
RR7: Describe your problem/action tracking system that addresses the initiation, status, and resolution of problems and action items. Indicate if you provide online access to the stakeholder to view status and history.

Verify that service outages and other service level issues are tracked using this system. Provide sample reports produced by this system.
RR8: Describe the process by which we can audit any and all reports for accuracy.
RR9: Indicate your agreement to provide reports when requested that verify your compliance with contractual obligations. These could include:

- The accuracy of charges and invoices, including assurance and demonstration that the stakeholder cannot be billed for another stakeholder's use of provider resources
- The provider's performance related to its
    1. internal practices and procedures
    2. disaster recovery and backup
    3. efficiency and effectiveness in using resources to provide services for which the stakeholder is charged performance of the services according to performance standards

RR10: Describe the training you offer to assist the stakeholder in understanding how to access reports (for online versions), interpret them, and audit all reports.
SP1: Do your services include consulting and training? Describe available training and on-site support to operationally assist us when your services are in place as well as to address any service limitations.

Cost (CO)

- CO1: Provide options for service structure, levels, and costs as well as service ROI (return on investment) information. Different levels of service are generally delivered at different costs.
- CO2: Indicate the basis for any changes in cost such as annual review results, comparison with industry benchmarks, service use beyond negotiated levels, etc.
- CO3: Describe any cost advantages for a long term contractual commitment and if this varies by duration.

Security Practices
NOAALink assumes that:

- The MISS provider's network and system infrastructure operates securely (that is, uses good, commonly accepted security practices). The MISS provider must also require the same standards from any tiered providers with whom they subcontract.
- The stakeholder's network and system infrastructure remain well secured when the provider's service is deployed
- Keep in mind that specific practice implementations vary depending on the provider's operational environment (shared vs. dedicated, single vs. multiple providers) and vary depending on the service being provided.

For example, a MISS provider's security operations center handles multiple stakeholders and is partially outsourced to another provider (potentially a dual carrier).

NOAALink has identified select security practices that are
meaningful for its specific set of services:
· Security Policies, Procedures, and Regulations (PP)
· Contingency Planning; Operational and Disaster Recovery (DR)
· Physical Security (PS)
· Data Handling (DH)
· Authentication and Authorization (AA)
· Access Control (AC)
· Software Integrity (SI)
· Secure Asset Configuration (SC)
· Backups (BU)
· Monitoring and Auditing (MA)
· Incident Management (IM)
Security Policies, Procedures, and Regulations (PP)
NOAALink assumes:
PP1: The MISS provider has a comprehensive set of documented, current policies that are periodically reviewed, updated, and enforced. These policies are available for stakeholder review.
PP2: The stakeholder will provide relevant security policies as part of any NOAALink tasking, including policies that specifically address the purpose and scope of the requested services.
Ensure policies describe the purpose of the services and companion systems that are being requested and their responsibilities. For example, a stakeholder's security policy states that inbound connection requests to the stakeholder's internal network are

not permitted from an untrusted network such as the Internet. Based on this policy, a provider can configure a firewall to block or deny all inbound packets that are not in response to requests from within the internal network (i.e., GSA Networx).

Compliance:
NOAALink assumes and expects:

- The MISS provider asserts that their security policies and procedures are compliant with those that the stakeholder has provided and do not conflict. Where compliance and conflict issues exist, the MISS provider will indicate how these are to be resolved.
- The MISS provider demonstrates its ability (and the ability of its potential tiered (dual carrier) providers, if applicable) to meet applicable legal and regulatory requirements and the timely implementation and demonstration of compliance procedures. (The stakeholder provides these requirements in any NOAALink tasking).

- The MISS provider demonstrates that they are exercising an appropriate standard of due care with respect to securing information assets, primarily accomplished through security policies, procedures, and practices that are documented and enforced.

Contingency Planning; Operational and Disaster Recovery (DR)
Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:
DR1: The MISS provider has business continuity and disaster recovery (BC/DR) plans for critical assets and asserts that they are periodically tested and found effective. For example:

- The provider has deployed operational redundancy (via a dual, high availability environment) in the event of a primary SOC failure.
- A failover site, physically and geographically separate from the provider's primary site, exists in the event of a weather, environmental, or natural disaster (earthquake, hurricane) or other circumstances that affect business continuity such as interruptions in local/regional utility service (communications, gas, electric, sewer, water). Or, conversely, the MISS provider operates requested services using a distributed architecture from geographically or meteorologically diverse locations in the event of primary site loss of power, loss of Internet connectivity, natural disasters, etc.
- The MISS provider contracts with multiple ISPs and is connected to multiple public exchanges operating on different trunk lines to ensure no loss of Internet connectivity.

DR2: The MISS provider's plan describes:

- Access control requirements under disaster response mode involving a provider site outage
- The differences, if any, in access controls between operational and disaster recovery scenarios

DR3: The MISS provider provides a copy of their BC/DR plan and procedures applicable to the requested services and the site(s) where these services are operated.
DR4: The MISS provider indicates if BC/DR testing is certified by an independent third party and, if so, provide a copy of the certification.
DR5: The MISS provider provide a copy of recent (within the last year) BC/DR test results.
DR6: The MISS provider's BC/DR plans and testing of these plans includes all tiered providers involved in delivering the requested services.
DR7: The MISS provider (and any tiered providers involved) can support periodic joint testing of both the stakeholder's and provider's BC/DR plans.

Such joint tests include impact scenarios that could potentially cause unacceptable interruption to stakeholder services.
DR8: The MISS provider demonstrates compliance with National Critical Infrastructure Protection or CIP Presidential directive PDD-63 of May 1998, FEMA: Continuity of Operations (COOP) Program Continuity of Government and Business Continuity Programs.

Physical Security (PS)
PS1: The MISS provider controls physical access to information assets and IT services and resources based on their importance, and monitors and reviews all physical access. This includes:

- Identification and authentication of stakeholder and provider staff members who have physical access to assets providing stakeholder services
- The process for requesting and approving physical access
- Whether the physical assets are dedicated to the stakeholder or shared by multiple stakeholders

- How physical assets are physically and securely segregated from other provider assets and other stakeholder assets
- Stakeholder asset protection from unauthorized physical access

PS2: The MISS provider demonstrates the presence of physical security systems such as uninterruptible power supplies, backup generators, redundant climate control systems, and a data-center-grade fire control system for prevention and protection.

Data Handling (DH)
Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:
DH1: The MISS provider handles stakeholder data in accordance with the data's classification (e.g., confidential, sensitive, public) and complies with stakeholder data handling requirements (policies, procedures, regulations). (The stakeholder provides these requirements.) Media is visibly marked to identify the data's classification. The MISS provider describes how access to highly confidential stakeholder data is protected and controlled. MISS provider staff members that require access to such data are identified and trained in the access requirements for this data.
DH2: The MISS provider protects highly confidential and sensitive data by using defined chains of custody and removable storage media, creating backups that are stored off site, using encryption for data creation, transfer, and storage where required, and having a discard process for such data and its storage media.
Backups
DH3: All stakeholder and MISS provider programs, data, and written materials are protected from unauthorized copy, use, duplication, and storage.

DH4: The MISS provider describes retention guidelines for various classes of data (such as user data, backups, logs, monitoring results, and reports) based on stakeholder requirements. Such guidelines specify how long data is retained online, its storage
format and archive process, and how long the archives are available for data retrieval.
DH5: The MISS provider prevents inadvertent disclosure of stakeholder data by ensuring proper erasure of media used to store intermediate and final stakeholder files before this media is reused.
Authentication and Authorization (AA)
AA1: The MISS provider has implemented appropriate levels of user authentication and control of user access. User access can occur through network connections from both inside and outside the MISS provider's organization.
MISS provider's practices are consistent with applicable NIST/FIPS security policies and procedures. MISS provider practices take into account levels of restricted access required for specific assets and levels of data classification.
AA2: The MISS provider requires the use of at least two-factor authentication for administrative control of all network infrastructure devices to include switches, gateways, routers, firewalls, VPNs, and network segment monitoring systems such as intrusion detection systems.
AA3: The MISS provider protects critical assets when authenticating and authorizing users and administrators working remotely (as well as third parties such as tiered service providers). This is implemented by using strong encryption and virtual private networks, access controls at the level of networks, systems, files, and applications, and by restricting access to authorized times and tasks as required.
These practices apply to wireless network access as well.
AA4: The MISS provider uses mechanisms such as digital signatures for ensuring nonrepudiation where it is critical to validate the sender's or originator's identity.
AA5: For systems at the stakeholder's site, the stakeholder has the responsibility to ensure that the MISS provider cannot access non-service systems. The MISS provider should also take steps to ensure that provider staff members are not permitted onto other stakeholder systems. This may involve setting access permissions for specific provider user groups on service systems residing at the stakeholder's site.

The stakeholder can then specifically block these groups on non-service systems, either by user group name or network address. The same precautions should be taken for systems located at the provider's site.

Access Control (AC)
Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:

AC1: The MISS provider affirms that only duly authorized staff members who use and support requested service systems have access to the operating system, applications, and databases to be used in providing the requested services. Access controls:

- Apply to provider and stakeholder staff members specify which uses of the system are authorized and how all others are denied or prohibited (such as unacceptable hardware and software installations)
- Establish access request, access review, and access termination processes are consistent with stakeholder policies and procedures. (These are provided by the stakeholder.)

AC2: The MISS provider's access controls include processes for access request, access review, and access termination.

AC3: The MISS provider's process for requesting new or changed access to service assets includes:

- A process definition or flow
- Access levels for development and support of service assets
- Approval authority for access ID requests (provider, stakeholder, both)
- Responsibility for implementation and maintenance of access IDs (provider, stakeholder, or both)
- Validation of access ID authorizing signatures

AC4: The MIS provider's process for reviewing new or changed access to service assets includes:

- Responsibility for creation and maintenance of access authorization lists
- Responsibility for review and approval of access authorization lists
- Review frequency of access authorization lists
- A process to ensure timely change or deletion of access upon employee transfer and/or termination
- A process for timely validation of access request changes, accomplished through reviewing the changes made in comparison to the changes requested

AC5: The MISS provider has implemented a range of security controls to protect stakeholder and provider assets residing on service systems and networks to include:

- Access controls at the level of networks, systems, files, and applications
- Data encryption (including key protection/distribution) and virtual private network technologies.

- In cases where strong encryption is required to protect asset confidentiality, the provider uses tested, proven encryption algorithms (such as AES, 3DES10, and RC411) and keys longer than 40 bits.
- An approach to cryptographic key management including PKI (Public Key Infrastructure) details such as certificate authorities, directory server management, key recovery, and the use of PKI applications.

Stakeholder and MISS provider should review key management periodically to ensure that there are no weaknesses in the cyber security system.

- Perimeter and internal firewalls that implement security policy
- Removable storage media for critical data so that it can be physically secured
- A system discard process that eradicates all data from disks and memory prior to disposal.
- Means for stakeholder data, system, network, and performance protection from exposure to other stakeholders when the service executes on shared servers or devices

AC6: The MISS provider's SOC operates on a local network, which is accessible only by operations staff that are physically inside the center. Physical SOC access is restricted to authorized staff members.

Software Integrity (SI)

Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:

SI1: The provider verifies the integrity of installed software by:

- Regularly checking for all viruses, worms, Trojan horses, and other malicious software and eradicating them
- Keeping up-to-date virus signatures and other relevant signatures such as those for intrusion detection systems
- Regularly comparing all file and directory cryptographic checksums with a trusted baseline
- Regularly verifying that stakeholder data stored on provider equipment is appropriately segregated from the data of other stakeholders

Secure Asset Configuration (SC)

Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:

The MISS provider has deployed and documented procedures and processes to ensure the secure configuration of all stakeholder information assets throughout their life cycle (Installation, operation, maintenance, and retirement). These are described below:

SC1: The provider requires authentication on both ends of the communication when changes to the configuration are requested. This may include rotating passwords or pass phrases to verify user authenticity, and also their authorization to make changes.
SC2: The provider applies patches to correct security and functionality problems. What is the documented schedule for patching the software on service systems? Is there a scheduled time period to patch systems (i.e., a time period on a specific day of the week where routine, non-critical patches are applied to service systems)? How does the patching schedule affect service availability requirements? How quickly does the MISS provider implement patches that address known vulnerabilities?
SC3: The MISS provider establishes a standard, minimum essential configuration for each type of computer and each type of service, storing this as a trusted base configuration. Actions to be taken include removing or disabling all unnecessary applications and services (producing a minimum essential configuration),removing default accounts, and patching known vulnerabilities. Does the MISS provider have a process for securely configuring service systems prior to deployment, and for keeping the system's security configuration up to date? Are configurations tested in a non-production environment prior to deployment? These questions apply to service systems at both MISS provider and stakeholder sites.
SC4: The MISS provider enables adequate levels of logging to validate the asset's security status.
SC5: The MISS provider has well-established, documented configuration management and change control procedures as well as test procedures that are exercised when changes are made. This includes the ability to recover from upgrade and patch installation problems, backing out all relevant changes and establishing a previously working configuration. This also includes stakeholder approval of pending changes, if warranted, and stakeholder notification when changes are made that can
affect stakeholder service processing, performance, and data.
SC6: The MISS provider tests all service system configurations after installation. How is this performed and how often? As configuration changes are made, the MISS provider needs to test the configuration to ensure it is still working as intended. Testing may include scanning and probing, as well as vulnerability assessment and penetration testing of the system. These types of tests reveal whether the current configuration is operating as intended. These results should be reported to the stakeholder on a regular basis.
SC7: The MISS provider considers the security implications for all changes to provider systems and networks.
SC8: The MISS provider performs vulnerability assessments and penetration tests on a regular basis and addresses weaknesses in a timely manner when they are identified.

Describe how frequently assessments are performed, how the MISS provider stays abreast of the latest vulnerabilities12, what tools are used, and how the most critical weaknesses to address are identified (versus the thousands that some tools report).

Independent Evaluations and Practice
SC9: The provider asserts that no undocumented, unreported configuration changes will occur.
P1.3.9 Backups (BU)
BU1: The provider specifies a regular schedule of backups for both software and data that includes:

- How often backups of certain types (partial, full) are performed
- Validating software and data before backup
- Validating software and data after backup
- Verifying the ability to restore from backups including being able to accommodate stakeholder requests for unscheduled backup restoration
- The capability to back up critical data more frequently. (The stakeholder identifies such data.)
- Identifying how long backup media is retained and if this can be specified by the stakeholder
- Isolating this stakeholder's backup media from that of other stakeholders
- The use of encryption

BU2: The MISS provider describes how they perform backups of service system configuration files. The description answers the following questions:

- How are these files stored?
- Are they encrypted? Are they digitally signed?
- Who has access to them?
- Are they stored off-site?
- Is there a well-defined chain of custody process as backup media moves from location to location?

It is advisable to sign and encrypt these files, as they can contain sensitive information about the service infrastructure. It is also prudent to severely restrict user access to these files. MISS Providers should keep configuration files for a reasonable amount of time, usually one year, in the event that they are compromised or failures occur, requiring an archived, known, trusted copy of the configuration files to be reinstalled.

Monitoring and Auditing (MA)
Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:
This practice describes actions the MISS provider takes to monitor and audit its own systems and networks. It also applies to stakeholder systems and networks if the requested services include monitoring and auditing.

MA1: The provider uses appropriate monitoring, auditing, and inspection facilities and assigns responsibility for reporting, evaluating, and responding to system and network events and conditions. This includes:
Regularly using system and network monitoring tools and examining the results they produce
Regularly using log filtering and analysis tools and examining the results they produce
Filtering raw logging information using automated tools to decrease the amount of information that analysts need to review
The MISS provider describes how often monitoring results are reviewed as part of normal operations.
MA2: The MISS provider asserts that monitoring results and log files are generated in a write once-read many (WORM) mode so that they cannot be overwritten or tampered with, and that they are stored on read-only media. This guarantees that unauthorized users cannot alter or delete file contents.
MA3: The MISS provider describes:

- How often monitoring is performed and whether or not this is done in real time
- How systems and networks are monitored
- If monitoring includes all network traffic entering and leaving the network
- If monitoring includes the entire network (firewalls, intrusion detection systems, routers, servers, niche security products, customer applications) and how correlation from all data sources is performed
- How significant monitoring results are reported
- How monitoring results are stored, including logs
- How monitoring tools are protected and ensured to be secure

MA4: The MISS provider describes their ongoing processes for global vulnerability and threat analysis as well as the sources used for such analysis.

Incident Management (IM)
Describe, using text and graphics, how your services will be implemented to address the following assumptions including, but not be limited to:
The MISS provider describes the following processes for both stakeholder and MISS provider systems involved in executing requested services.
IM1: Incident reporting and triage. This process involves the provider reviewing reports of suspicious system and network behavior and events (an incident). Such reports often result from monitoring and auditing. A sound incident reporting and triage
process ensures that all staff members know whom to contact when they notice suspicious behavior and that they know how to take user reports into account. The process includes:

- Performing “triage” upon receipt of a report, making an initial assessment about its severity
- Evaluating, correlating, and prioritizing each report
- Investigating each report or set of related reports
- Determining that an attack or intrusion has occurred and initiating the intrusion detection process

IM2: Intrusion detection: This process includes alert handling, describing what actions and countermeasures are taken when alerts are generated. For example, all alerts are handled initially by automation, and when human action is required, a notification process delivers the information to an analyst. Include how this
process is adapted to address new threats.
IM3: Intrusion response: This process includes:

- Handoff from intrusion detection
- Triage of all detected intrusions and how triage priorities are established

How the service responds to a detected intrusion including internal provider supervisor/manager notification.

- Describe escalation decision points and timing. For example, notification could occur within one and a half hours of detection to the first level supervisor, four hours to the next level up, eight hours to the next level, and sixteen hours to the responsible executive/senior manager. Times are likely to vary based on the negotiated service level.
- Notifying the stakeholder (describe escalation decision points and timing)
- Containing the damage
- Returning systems to normal operation
- Exercising options for automated response
- Performing forensic analysis

- Preserving evidence
- Involving local, national, and international law enforcement (Cyber Security, CERT)
- Recommending improvement actions to ensure the same intrusion is not successful again

IM4: The provider describes the following process review approaches:

- How the stakeholder is informed and involved in these processes (IM1, IM2, IM3), including stakeholder roles, responsibilities, and approval authority.
- How often and under what conditions intrusion detection and response processes are exercised and tested. Include a summary of the scenarios and test cases that are used to conduct such testing. The best of provider organizations practice their responses to security incidents by performing exercises. This approach results in their being better prepared when a real event happens, and they then respond with skills that have been honed through practice sessions and exercises.

IM5: The MISS provider confirms that these processes are documented and available to the stakeholder, if such documentation is not included in the proposal.

Case Studies

This section gives the MISS provider an opportunity to describe how their services have performed in an operational setting. The response is intended to provide scenario-based information that a stakeholder can use to evaluate the presence or absence of business attributes, service attributes, and security practices. Some of this information can be verified through independent sources.

Case Studies

This section gives the MISS provider an opportunity to describe how their services have performed in an operational setting. The response is intended to provide scenario-based information that a stakeholder can use to evaluate the presence or absence of business attributes, service attributes, and security practices. Some of this information can be verified through independent sources.

Service Scenarios

Describe the top three to five service-based events or incidents that the provider was involved in during the last twelve months. Describe the service delivery flow including automated support as well as staff analysis and support and stakeholder involvement. For example, during and after an attack on a stakeholder's systems and networks, describe the MISS provider's role in managing attack detection and response.

If MISS providers are unwilling to describe specific scenarios due to stakeholder confidentiality requirements, consider posing several hypothetical scenarios that are meaningful to the stakeholder organization and ask the provider how they would address them.

Market Position

Describe why you would buy your service instead of contracting with one of your top three competitors. Identify what distinguishes your services in the marketplace as well as areas for improvement and future development.

**FIPS Publications**

http://csrc.nist.gov/publications/PubsFIPS.html

FIPS Publications are issued by NIST after approval by the Secretary of Commerce pursuant to Section 5131 of the Information Technology Reform Act of 1996 (Public Law 104-106) and the Federal Information Security Management Act of 2002 (Public Law 107-347.

With the passage of the Federal Information Security Management Act of 2002, there is no longer a statutory provision to allow for agencies to waive mandatory Federal Information Processing Standards (FIPS). Therefore, the references to the "waiver process" contained in many of the FIPS are no longer applicable. ).

***FIPS***
**Number**
**Date**
**Title**

FIPS 201--1
Mar 2006
Personal Identity Verification (PIV) of Federal Employees and Contractors
**FIPS-201-1-chng1.pdf**

FIPS 200
Mar 2006
Minimum Security Requirements for Federal Information and Information Systems
**FIPS-200-final-march.pdf**

FIPS 199
Feb 2004
Standards for Security Categorization of Federal Information and Information Systems
**FIPS-PUB-199-final.pdf**

FIPS 198--1
Jul 2008
The Keyed-Hash Message Authentication Code (HMAC)
**FIPS-198-1_final.pdf**

FIPS 197
Nov 2001
Advanced Encryption Standard
**fips-197.pdf**
**fips-197.ps**

FIPS 196
Feb 1997
Entity Authentication Using Public Key Cryptography
**fips196.pdf**

**fips196.ps**

FIPS 191
Nov 1994
Guideline for The Analysis of Local Area Network Security
**fips191.pdf**

FIPS 190
Sep 1994
Guideline for the Use of Advanced Authentication Technology Alternatives
**fip190.txt**

FIPS 188
Sep 1994
Standard Security Label for Information Transfer
**fips188.pdf**
**fips188.html**
**fips188.ps**
**fips188.txt**

FIPS 186--3
Nov 12, 2008
DRAFT Digital Signature Standard (DSS)
**Draft_FIPS-186-3 _November2008.pdf**

FIPS 186--2
Jan 2000
FIPS 186-2: Digital Signature Standard (DSS)
**fips186-2-change1.pdf**

FIPS 185
Feb 1994
Escrowed Encryption Standard

**fips185.txt**

FIPS 181
Oct 1993
Automated Password Generator
**fips181.txt**

FIPS 180--3
Oct 2008
Secure Hash Standard (SHS)
**fips180-3_final.pdf**

FIPS 140--3
Jul 13, 2007
DRAFT Security Requirements for Cryptographic Modules
**fips1403Draft.pdf**

FIPS 140--2
May 2001
Security Requirements for Cryptographic Modules
**fips1402.pdf**
**Fips140-2.zip**
**fips1402annexa.pdf**
**fips1402annexb.pdf**
**fips1402annexc.pdf**
**fips1402annexd.pdf**

FIPS 140--1
Jan 1994
FIPS 140-1: Security Requirements for Cryptographic Modules
**fips1401.pdf**

FIPS 113
May 1985
Computer Data Authentication (no electronic version available)
**ordering-pubs.html**

# ATTACHMENT D

# DOWNSELECT REQUIREMENT 2

# VALUE ADDED NETWORK

## ATTACHMENT D: DOWN-SELECT 2 – VALUE ADDED NETWORK

### CONTRACTORS CAPABILITY

This requirement provides general information about NOAA/NOAALink, its business environment, current organization, and technical environment. NOAA's OCIO, AGO, and CFO provide access to Information Technology services for their respective Line Offices/Lines of Business (LoB). Information Technology (IT) is essential to an efficient, responsive government and can enable NOAA's enduing functions to provide critical services to the public in a cost-effective way.

NOAA's CIO, AGO, CFOs evaluate, acquire, implement, and deploy support services that enable organizations to deliver high value services to their stakeholders.

NOAA's OCIO, AGO, and CFO provide strategic contracts and solutions; these include voice, data, video, integrated services, networking, cabling, information management, data center consolidation and expansion, and business continuance services. The AGO ensures that LoBs get the best value for their technology dollars.

AGO and OCIO develops core competencies in:

- Public Sector Knowledge of NOAA businesses, locations and methods
- Technical Knowledge of converged IT products and services
- Industry Knowledge of vendor processes, procedures, strengths and weaknesses
- OCIO manages NOAA's IT infrastructure; including data center, network and
- Telecommunications services and security
- Establishes policies, standards and guidelines for NOAA's IT
- Promotes an enterprise approach to IT mangement
- Develops and manages web/internet services
- NOAA's OCIO, AGO, and CFO add value to the products and services it contracts for by providing:
- Budgeting assistance to agencies to help justify technology adoption
- Consolidated buying power through enterprise agreements
- Safeguards to stakeholder funds by ensuring the proper and most effective use of technologies
- Industry and technical expertise that single LoBs cannot get individually
- Secure access to acquisition and financial information
- Aggregated services and development of technical vision
- Improved use of existing technologies
- OCIO provides enterprise policy and guidelines to their respective LoBs for:
- Technology enterprise management — methods for managing technology resources including data centers, servers, mainframes, PCs and laptops,
- Wide and local area networks, telecommunications and technology staff and personnel.
- Technology portfolio management — approaches for analyzing and ranking technology investments

**Business and Operating Environment**

NOAA provides IT infrastructure services internally to its stakeholders and externally to the public.
The majority of its customers are external or public facing, other stakeholders are its LoBs, educational institutions, county and local governments, and emergency response organizations.
Ultimately, NOAA uses these services in order to enhance the capability to deliver services and information to citizens. Having these services available is critical to people's lives. Information Technology must enable the delivery of critical services to citizens.

- NOAA LoBs receive funding from DOC and operates on a legislatively approved annual budget.
- NOAA receives funding from year-to-year and manages capital expenditures for technology.
- NOAA can bill for services (working capital fund), retain funds and execute multi-year contracts.
- NOAALink seeks an option that would support fee-for-service.
- Some of the distinct constraints are:
- Services are priced and delivered at cost plus overhead.
- Fee-for-service tracking
- Rates must be set in accordance with the costs required to deliver that service.
- Many NOAA services are subject to Federal Funding Guidelines.

- NOAA employs a planning, programming, budgeting, and execution system (PPBES).
- NOAALink must establish rates 18-24 months in advance of a fiscal year in order to allow the PPBES and LoBs to make necessary adjustments to NOAA's capabilities and to guarantee effective delivery of products and services.
- NOAA must maintain an enterprise view, serving all horizontal areas of stakeholder interests.
- NOAA is subject to open record requests and public scrutiny.
- NOAA must competitively bid its contracts and in all ways comply with DOC/NOAA and federal procurement guidelines.

**Overview of Current IT and/or Business Process Organization**
NOAA's IT infrastructure supports critical functions at all levels of each LoB, including the large and complex systems that support acquisition, finance and every other critical function of NOAA. NOAA runs on an aging IT infrastructure and faces challenges in meeting industry standards and providing security and disaster recovery. The NOAALink contract and this project are required to significantly advance the maturity of the horizontal IT infrastructure. NOAA's IT infrastructure lacks effective processes and lacks the automation necessary to operate efficiently. Almost half of NOAA's IT infrastructure is 6-10 years old, and updating the infrastructure will require a significant capital expenditure. All LoB and DOC agencies face similar challenges.

**Description of Technical Environment**
NOAA's Information Technology infrastructure is a strategic asset. NOAA's enduring functions (infrastructure) are interconnected by a series of disparate telecommunication networks.
Investment in information technology is an integral component of NOAA's core mission and is reflected in its plan. NOAA views information technology as a strategic advantage and will use the NOAALink contract to aggressively encourage innovative offerors to enhance the quality of shared IT services to all stakeholders. Enterprise data network services include the provisioning and management of a reliable, scalable, responsive and secure high-speed network infrastructure to all NOAA locations. The provision of Quality of Service (QoS) capabilities will increase the availability of critical network applications. NOAA seeks to standardize networking processes as well as converge and migrate networks when possible to enable a consistent user experience across NOAA. NOAA using NOAALink seeks to create a value added network (VAN), enhance shared service delivery and its associated interoperability.

The "back room" IT products and services that support creation of a total information architecture. These services often include telecommunications network services, management and provision of large-scale computing (such as mainframes), the management of shared customer databases, and research and development expertise aimed at identifying useful emerging technologies to the organization. NOAA also has an additional layer of shared and standard infrastructure applications used by all organizational components. These include enterprise-wide applications that support shared services in functional and support areas, such as accounting, human resources management, and budgeting. Three service areas comprise Infrastructure Management: Data and Voice Network Services, Data Center Services, and Applications Management Services. A prime focus of Infrastructure Management at NOAA is to achieve economies of-scale by consolidating acquisition of hardware, software, and IT services in a "Gridded Enterprise Service Bus" configuration.

Potential Scope of Services NOAA/NOAALink is evaluating Services for the following functional service areas ("Towers"):

Cross-Functional Services, including:

- Data and Voice Network Services
- Data Center Services
- Application Management Services
- Cross Functional – Service Support Services
- Cross Functional – Service Delivery Services

- Cross Functional – Equipment and Software Services
- Cross Functional – Other Services: Server, Mainframe and Web Hosting Services
- End-User Computing (EUC) Services
- Potential Locations: DOC/NOAA wide

NOAA/NOAALink is considering the provision of Services for its IT Infrastructure. Furthermore, the intent of NOAA will be to obtain the services of a single "Infrastructure Provider" to operate and enhance the NOAALink infrastructure. This Infrastructure Provider will help foster and manage the relationship between NOAALink and its sub-contractors to ensure NOAA receives quality, cost effective, reliable and scalable infrastructure services. The Infrastructure Provider is expected to leverage the best practice technologies and processes to drive change in enterprise functions. Infrastructure Provider is expected to implement telecommunications equipment energy efficiency ratings in support of EPEAT-Energy Star and
Leadership in Energy and Environmental Design (LEED). Further, the Infrastructure Provider will help NOAA/NOAALink to restructure into a "thin" corporate layer and a robust operating layer by shifting from expense (cost) to investment management.

Using LEAN6, ITILv3, and eTOM (Enhanced Telecommunications Operations Map) the Infrastructure Provider (offeror) is expected to:
Create opportunities for the enterprise
Perform sourcing assessment to set criteria for minimum infrastructure standards including standards for energy consumption
NOAA LoBs will be graded against the same criteria
Develop and establish an Assessment and Transition Timeline
Create and implement a roadmap for shared service-delivery capabilities
Develop service management governance
Ensure sourcing decisions support best managed infrastructure
Develop world-class shared service management model

Establish fact-based baseline for:
NOAA's data center, telecom (network topology) and desktop services
IT services for 7 LoBs
Recommendations could include alternatives
NOAA retains some service delivery but make improvements
Outsource services: NOAA manages offeror and NOAA owns IT assets
Outsource services: NOAA manages offeror and offeror owns IT assets

The sections below, describe NOAA/NOAALink's objectives in three broad categories as follows:

1. NOAA/NOAALink Corporate Objectives: Specific objectives critical to the overall success of NOAALink.

2. Service Objectives: Specific objectives related to the provision of Shared Services included within the scope of this RFQC; such objectives apply regardless of the entity (or entities) providing the Shared Services.

3. Sourcing Objectives: Specific objectives that relate to the provision of any Services by a Potential Shared Service Provider (PSSP).

This categorization is intended to provide a complete perspective and alignment regarding all NOAA/NOAALink objectives. NOAALink's Corporate Objectives are the foundation; the Service and Sourcing Objectives support the achievement of NOAA's overall Corporate Objectives. Sourcing is not an objective in and of it-self. However, NOAALink provides Sourcing Objectives that, if achieved, could improve the ability of NOAALink to meet its Service and Corporate Objectives.

NOAALink Corporate Objectives

NOAA/NOAALink faces exposure to substantial risks in its physical use and financial use of technology. In order to mitigate these risks, NOAA/NOAALink needs to change its IT infrastructure, but lacks the capability to manage through the change. NOAA spends the same IT dollars in multiple areas and is unable to effectively leverage that spend horizontally across the enterprise. NOAALink has stakeholder servicing applications that are not managed to the high level of security and availability required by the stakeholder's need. NOAALinks seeks a PSSP that can design an approach to bring about an integrated, unified, shared IT communication infrastructure that is secure, stable and well-governed.
DOC/NOAA has initiated an infrastructure transformation project via its NOAALink contract. In this project, NOAALink seeks a PSSP to outsource and consolidate services for a significant portion of its Technology Infrastructure and Managed Network Services.

NOAA/NOAALink expects this project to meet corporate objectives which:

- Improve the management, and reduce the risks associated with information
- resources and technology assets IAW the NOAALink SOO
- Outsource the technical resources responsible for IT operations IAW the NOAALink SOO
- Consolidate the technology infrastructure of the participating NOAA LoBs to reduce overhead and provide more efficient and effective operations IAW the NOAALink SOO
- Create a long-term solution for providing superb management of NOAA's shared IT infrastructure and the delivery of IT products and services IAW the NOAALink SOO
- Transform NOAALink's ability to deliver solutions for its stakeholders IAW the NOAALink SOO
- Ensure NOAA's IT investments create value for its stakeholders
- Enable long-term collaboration with stakeholders and industry partners to define the best solution for IT products and service delivery to stakeholders and the public IAW the NOAALink SOO
- Provide transparency to NOAA’s IT spend, with clear lines of responsibility for service outcomes and clearly align IT spend with strategic business direction
- Provide an optional innovative self-funding solution

The use of NOAALink to outsource services represents a major paradigm shift for NOAA's LoBs and stakeholders. Throughout this project, the mission of NOAALink is to see that outsourcing:

- Provides business value for the LoBs, stakeholders, and public, and
- Does no harm to its fundamental acquisition and financial business applications and the services received by stakeholders and industry partners.

Shared Service Objectives

Specific objectives related to the provision of Shared Services included within the scope of this RFQC; such objectives apply regardless of the entity (or entities) providing the Shared Services.

1. Shared Service Strategic Objectives: these include providing Shared Services and solutions in full alignment with business unit requirements; exploiting technologies and associated Shared Services for competitive advantage.
2. Shared Service Performance Objectives: these include maintaining and continuously improving quality of service; improving availability and responsiveness of the Shared Services; meeting deliverables on time and on budget.
3. Shared Service Risk Management Objectives: these include reducing overall risk, providing for improved disaster recovery, enhancing business continuity, providing for emergency management capabilities, securing information.
4. Shared Service Financial Objectives: these include: reducing overall expenses, efficient deployment of capital, complete and efficient budgeting, tracking, and optional charge back systems.
5. Shared Service Relationship Objectives: describe the desired attributes of the Shared Service delivery organization with other parties, including senior management, LoBs, stakeholders (endusers), and industry partners.

Shred Service Objective: Strategic NOAA/NOAALink expects this project to meet strategic objectives which:

- Improve management of risks associated with its information resources and technology assets;
- Unify the technology infrastructure of the participating LoBs to reduce overhead and provide more efficient and effective operations;
- Create a long-term solution for providing superb management of its shared IT infrastructure and the delivery of shared IT services;
- Transform NOAA’s ability to deliver solutions to stakeholders and the public;
- Ensure NOAA's IT investments create added value for its LoBs and stakeholders;
- Enable long-term collaboration with agency partners to define the best solution for IT product and service delivery to stakeholders and the public;
- Provide transparency to NOAA’s IT products and services spend, with clear lines of responsibility for

service outcomes and clearly align IT spend with strategic business direction;

- Immediate return on investment from the PSSP in capital improvements in NOAA's IT infrastructure;
- Provide for a continual investment roadmap in refreshing NOAALink's infrastructure that is at least equal to the current technology base spend;
- Provide a layer of indirection between the services received and the technologies used to deliver those services based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment);
- Provide for faster cycles of technology refresh and transformation based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment);
- Establish infrastructure to absorb existing contracts as thy reach the end of their respective period of performance;
- Enhance horizontal communication across NOAA/NOAALink's business applications based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment); and,

Move NOAA/NOAALink's application development and other retained services to a higher maturity level based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment);
Provide overall improvements in the:

- Maturity of NOAA/NOAALink's IT enterprise based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment);
- Development of processes, documentation, skills, standards and plans based on attributes of the Federal Enterprise Architecture and NOAALink's target business architecture (NOAALink Integrated Acquisition Environment);
- Documentation of critical business knowledge and institutionalized knowledge management;
- Access to critical skills as needed;
- Agency service delivery of applications; and,
- Access to NOAALink services.

Service Objectives: Performance
NOAALink bases its Service Management on ITIL v3 and LEAN6 Sigma (LEAN6) best practices for the support and delivery of IT Services. NOAALink uses a model for a Shared Service Model (SSM) that expects to deliver services through External Service Providers.

The SSM uses a set of Service Management Processes to manage IT service delivery across any number of environments and third party providers. These Service Management Processes enable a seamless and consistent management of IT services, a constant cycle of agreeing, monitoring and reporting upon IT service achievements, and the instigation of actions to improve poor service.
NOAA expects this project to meet performance objectives which:
Adheres to basic ITIL v3 and LEAN6 principles
Builds the ITIL v3 and LEAN6 framework
Supports transition (framework related processes/services)
Effects the changes:
Each service to be added or modified will be undertaken using the full ITIL lifecycle (Service Strategy, Service Design, Service Transition, Service Operation, Informational events, Warning events, Critical events, Continual Service Improvement)

The order of the services to be developed will be driven by NOAALink's perspective on ITIL Service Management's best practice's includes emphasis on business impact analysis and/or ROI.
Development and deployment of each new service will make use of the ITILv3 (ref. Fig. 1) and LEAN6 processes.
New service(s) and service attributes not identified during up front due diligence will be rolled into the framework.

- Provide Service assurance
- Provide incentive-based Service Level management
- Provide Service Support Services
- Provide Service Delivery Services
- Service Support Services will include:
- Service Desk

Define processes for:

- Event Management
- Incident Management
- Problem Management
- Request Fulfillment
- Access Managment
- Change Management
- Configuration Management
- Release Management

Service Delivery Services will include:

- Availability Management
- Capacity Management
- Service Level Management
- IT Service Continuity Management
- IT Financial Management
- Security Management

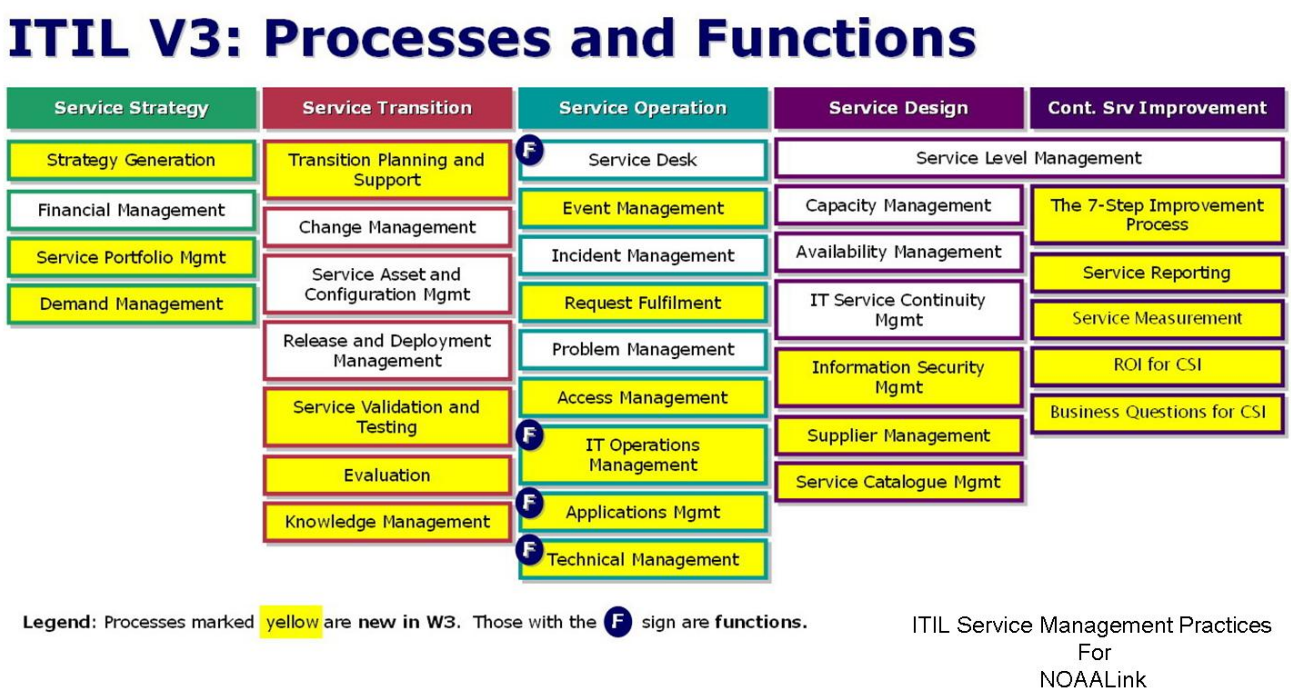



Figure 1. ITIL v3 Processes

This procurement establishes Service Level Agreements (SLAs) to measure Critical Service Levels and Key Performance Indicator (KPI) Measurements and a monthly reporting structure to monitor performance. Specifically, NOAALink will measure all services that impact the stakeholders and user. Service Level expectation and minimums will be tracked to meet or exceed current industry standard percentages. As measurements exceed expectations, those Service Level percentages will reset and become NOAALink's new Service Levels. Service Levels are monitored in specific Performance Categories.

- The Service Level philosophy drives a business relationship with the PSSP to:
- Clearly communicate Critical measures and KPIs;
- Capture commitments to important deliverables;
- Pre-define continuous improvement objectives and goal-setting;
- Establish for "early warning," allowing preventive measures;
- Place appropriate financial risk on PSSP for performance;

- Prescribe an "earn-back" mechanism to encourage corrections;
- Minimize future negotiations;
- Provide for a continual investment in refreshing the infrastructure;
- Provide year-over-year improvements in service levels;
- Provide clear visibility into the performance of NOAALink's IT investments; and,
- Support growth into efficient and mature services delivery.
- Shared Service Objectives: Risk Management
- NOAA/NOAALink expects the project to meet risk management objectives which:
- Enhance NOAALink's capability to make informed decisions about IT business risk;
- Enhance capabilities for disaster recovery and business continuity;
- Pervasive redundancy in critical infrastructure
- Consistent and pervasive data backup
- Formalized test plans and test exercises
- Enhance visibility of under-funding in critical initiatives;
- Promote built-in security; and,
- Reduce the risks associated with its current technical operations.

Shared Service Objectives: Financial
The PSSP has significant opportunities, over the term of the contract, to capture efficiencies in NOAA's enterprise. NOAALink's vision of the benefits to stakeholders is based on achieving and maintaining an acceptable solution that balances price, performance and effectiveness.

Shared Service Objectives: Relationship
NOAA/NOAALink expects the project to meet relationship objectives which:

- Measures and continuously improves overall customer satisfaction;
- Promotes trust between NOAALink and its LoBs, and DOC agencies;
- Establishes a high degree of cooperation between the PSSP(s) and other
- supporting third party offerors;
- Coordinates efforts at an enterprise level with change management horizontally across all platforms and third party offerors;
- Renegotiate any self-service contracts to enhance service delivery from those legacy offerors throughout the transition/transformation; and,
- Provide clear accountability for service performance.

Service: Continuity of Delivery and Human Resource Objectives
In order to maintain continuity of services to and for stakeholders the expectation is that the PSSP will manage the convergence and migration of the current communication infrastructure as part of its commencement of services. In addition, NOAALink expects the PSSP to maintain a process oriented operation that can:
Support uninterrupted service acquisition and delivery

- Capture the critical business knowledge that may be held only by a shrinking pool of subject matter experts (SME); and,
- Provide critical skills to meet and sustain NOAALink's business needs.

NOAALink seeks a long-term, mutually beneficial and cooperative relationship with a PSSP. PSSP will be evaluated within the following service categories:
Capability to Design, Deploy, and Support a Value Added Network (VAN) for continual business and service improvement
Service Delivery Capability
Business Relationship
Human Capital Management
Quality of Service (Technical)
Terms & Conditions
Financial

# ATTACHMENT E

# DOWNSELECT REQUIREMENT 3

# ACQUISITION STREAMLINING
# NOAA INTEGRATED ACQUISITION ENVIRONMENT

## ATTACHMENT E: DOWN-SELECT 3 – ACQUISITION STREAMLINIG (NIAE)

### CONTRACTORS CAPABILITY

At a high level an open Integrated Acquisition Environment that promotes knowledge management, including Web 2.0 technologies; streamlined business services; consolidating IT infrastructure; and cybersecurity is a Presidential and Office of Management and Budget (OMB) directive. It is also a DOC/NOAA priority. Its purpose is to simplify, unify and streamline the complex federal acquisition process for government buyers and sellers. There are acquisition functions common to all agencies that are now centrally managed as shared systems. This is accomplished through leveraging an architectural foundation that facilitates access to real-time, actionable data to make better decisions, and promotes reuse, sharing data, and linking systems. IAE systems are a utility that facilitate every phase of the acquisition lifecycle: requirement definition, acquisition planning, synopsis and solicitation, screening and evaluation, funding, award, contract administration, and spend analysis reporting.

The IAE is currently a portfolio of nine systems summarized below. Additional information on IAE and these systems can be found at Acquisition.gov. At this time, each system has its own web presence.

| SYSTEM INFORMATION | CCR | FedReg | ORCA | EPLS | eSRS | FPDS | FBO/FedTeds | WDOL | CFDA |
|---|---|---|---|---|---|---|---|---|---|
| Public Law/U.S. Code/CFR | | | | 31 USC 6101 | PL 109-282 | 41 USC 40, 13 CFR 121, 13 CFR 124 | 41 USC 416, 15 USC 637 | PL 74-403, 41 USC 351, 40 USC 3141 | 31 USC 6102 |
| OMB Circular/Memorandum | M-03-01 | | | | | | | | A-89 |
| DOD Directive | | 5230.25 | | | | | | | |
| FAC Circular | 2001-16 | | 2001-26, 2005-25 | | | | | | |
| FAR | 4.1102, 52.204-7, 52.212-3, 52.232-33 | | 52.204-8 | 9.4 | | 4.602, 25, 52.2218 | 5.1, 5.2 | 22.10, 47.2 | n/a |
| DFARS | 204.7302 | | | | | | | | |
| | | | | | | | | | |
| # of XML Web Services | 2 | 0 | 2 | 0 | 0 | 36 | 0 | 1 | 0 |
| | | | | | | | | | |
| # Tables | 24 | 11 | 53 | 33 | 65 | 185 | 87 | 48 | 96 |
| Key Table | Vendor | Agency | Vendor | Party | Contract | Award | Package | WDs | Programs |
| Key Table rows | 453,282 | 136,171 | 71,971 | 66,136 | 1,200,000 | 26,000,000 | 350,000 | 5,000 | 1,860 |
| | | | | | | | | | |
| Primary Data Source | Vendor | Agency | Vendor | Agency | Vendor | Agency | Agency | Agency | Agency |
| Primary Relationship | Vendor | Agency | Vendor | Vendor | Vendor | Agency/Vendor | Agency | None | Agency |
| Type of Access | Vendor | Agency | Vendor | Public | Public | Public | Public | Public | Public |
| | | | | | | | | | |
| Operating System | Windows | Windows | Windows | Linux | Linux | Linux | Linux | Windows | Windows |
| Web Server | IIS | IIS | IIS | Apache | Apache | Oracle App | Apache | IIS | Oracle App |
| Database | Oracle | Oracle | Oracle | Oracle | MySQL | Oracle | MySQL | SQL Server | Oracle |
| Application Language/Environment | .NET | .NET | .NET | Java | PHP | Java | PHP/Java | .NET | Oracle App |

Table 1

The IAE systems are accessed by government agencies, commercial vendors and the general public through use of websites and XML transfers of data. The IAE systems are hosted, designed, written and maintained by separate contractors. Management, coordination and standardization are accomplished by the IAE PMO function.

The estimated benefits, cost effectiveness, and cost avoidance for the IAE initiative were included in OMB's "Fiscal Year 2008 Report to Congress on the Benefits of the President's E-Government Initiatives." The report provides the benefits, cost effectiveness, and cost avoidance of the IAE initiative by agency. To summarize, the agencies realized an estimated cost avoidance of $5,346,266 and an estimated operational cost savings of $29,165,731 annually.

The current portfolio of nine systems has resulted in significant cost avoidance and savings, as mentioned above. But, the current portfolio is the result of a best of breed approach and they themselves have overlapping functions that if integrated, can greatly simplify the business and technical solutions that will improve responsiveness and yield additional savings. For example, the Federal Technical Data Solution, which provides a means of sharing sensitive but unclassified documents such as building drawings with vendors, was recently merged with the Federal Business Opportunities application, which will save $1.6M annually. Without a change in the way the IAE systems are managed and maintained, the costs will rise over time. IAE is the largest of the cross-agency initiatives implemented by the E-Government Act of 2002. IAE simplifies, unifies, and streamlines the complex federal acquisition process, facilitating all phases of the federal acquisition lifecycle. IAE has transformed the acquisition process through use of the internet and shared services across all federal agencies.
Managed by the General Services Administration (GSA), IAE operates under the authority of the Office of Management and Budget and the Chief Acquisition Officers Council. You can access all the systems at www.acquisition.gov. It is anticipated that through services integration, the functionality of many of these

applications may be combined to achieve the target architecture. In addition, this target architecture will also contribute to a data architecture that ensures accessibility, a single authoritative source, and data quality. Many of the applications are briefly described at www.acquisition.gov. This list is not exhaustive and is anticipated to be expanded to include similar or like application services being supported by the Assistance community (Loans and Grants).

The NOAALink Integrated Acquisition Environment (NIAE) framework is based on the larger aforementioned IAE. NOAA through the NOAALink contract seeks a single vendor for the development, implementation, operation and maintenance of its NOAALink Integrated Acquisition Environment (NIAE). NOAALINK is seeking Prospective Shared Service Providers (PSSP) that will be responsible for rationalizing the "as-is" heterogeneous technology environment among NOAA's acquisition and finance and program management systems and using a phased approach, create a service-oriented (target) architecture that allows for areas of shared functionality, to be shared and reused. Approaches or solution architecture is based on the NOAALink Technical Standards Profile and The Open Group Architecture Framework (TOGAF).

The NOAALink Integrated Acquisition Environment (NIAE) framework includes a portal supported by a value added network. The portal will facilitate strategic sourcing by use or implementation of a strategic sourcing catalog. This catalog will contain and allow seamless transparent access to all of NOAALink's IT products and services. It will be the intent of NOAALink to work with the contractor to explore and identify opportunities to migrate the NOAALink portal to a shared services model based on the NOAALink Integrated Acquisition Environment (NIAE). The offeror should propose implementing a portal that uses innovative tools, methods, and systems that promote transparency, collaboration, a network of participation, and cooperation among NOAA line offices/lines of business, DOC agencies, stakeholders, and its business partners. NOAALink requires an innovative fee-for-service or share in savings (revenue) option for future implementation. These revenues could be fees, data services, data sales, etc. NOAALINK will look to the contractor to propose a roadmap that will not only develop revenues but to work to continually reduce the overall cost of operating the portal. NOAALINK expects the contractor to keep all components up to date, use components that bring best value to DOC/NOAA, deploy new components as needed and keep the internet presence competitive with the other governmental departments/agencies (i.e., Web2.0 and/or Gov2.0 , next generation technologies, and cloud computing). Offerors are encouraged to leverage and extend the existing instance(s) of Sharepoint and active directory to the extent practicable.

NOAALINK is seeking offerors that can provide portal-related managed services for NOAA's business architecture, See Task Order (T.O.) 1 - BMS Bus Architecture.

Successfully qualifying through this capability statement requirement will be the only opportunity for Prospective Contractors to receive any potential Statement of Objectives task (SOO). There will be NO other opportunity to engage NOAALINK directly once the capability statement requirement due date has expired.

It is the intent of NOAALINK to issue a separate SOO for the entire scope of requirements. NOAALINK reserves the right to eliminate and/or modify the scope between selection of qualified contractors and the issuance of any potential SOO.

Problem Statement: Acquisition of goods and services by NOAA is a labor and time intensive activity due to many manual processes that must be applied in order to complete a procurement cycle. While submission and distribution of Request For Proposals (RFPs) or Statement Of Objectives (SOO) and their responses are largely performed manually with minor automation, the review process and evaluation of responses are still managed with documents whose only structure is the visual layout of the word processing format used for submission. Often, the review is done with paper printouts provided by the vendors and/or service providers or created by the government on its own equipment. The process is error prone and can lead to protests by companies that believe that an error lead to their elimination from the pool of candidates. A common reason for elimination of a proposal is lack of compliance with the strict regulations laid down in the RFP or SOO both compliance with basic requirements and compliance with formatting of content. An Integrated Acquisition Environment based "model" for the procurement lifecycle would allow automation of 90% of the mechanical checks for compliance and highlight any inconsistencies before a final submission is made.

Process Improvement: A NOAALink business process model based RFP or SOO process would support, in addition to up front compliance checking, automated cross-walking of proposals allowing clear side-by-side comparison across proposal submissions. Model Based Acquisition (MBA) would enable end-to-end process management through the convergence of business process management with service-oriented acquisition architecture, Web 2.0, complex event processing, document management, and master data management technologies. This Service Oriented Acquisition (SOA) would speed up evaluation by unambiguously and accurately specifying response details with their corresponding RFP or SOO requirements and would improve

support for application of global requirements. Business Process Management of simultaneous contributions to RFP or SOO and to RFP or SOO responses and role based access to selected portions of either will be feasible with tools that comprehend the underlying model of the RFP or SOO.

Consistency: A MBA based foundation would allow for comparison between RFP or SOO reducing inconsistencies leading to confusion and gaps between differing RFP or SOO formats. Consistent RFP or SOO and responses would allow vendors to target their capabilities in support of the NOAA acquisition communities of interest. Inconsistencies between proposals will be clearer and in sharper detail reducing the opportunity for protests regarding unfair application of RFP or SOO evaluation factors.

OBJECTIVES:

One production instance of an enterprise-wide procurement system (integrated grid)

Implement and align an Integrated Supply Chain (integrated grid)

Integrate with the multiple instances of the CFS finance system: continue to provide accurate vendor and account code data, real time financial commitments and obligations along with improved payment processing (including reconciliation, receipts, invoicing and payment data)

Standardize Business Processes (Payments, Funds, and Receivables Management)

Modern one-stop-shop internet protocol-based technology: will provide a central point for all users, vendors and contractors to communicate with the DOC/NOAA (integrated grid)

Intuitive interface: user-friendly that decreases the need for training

Secure: meets all Federal and agency-wide security policies specifically the DoC Office of IT Policy and Planning guidelines

One acquisition system to handle all end-to-end lifecycle activities: streamlines and standardizes business processes and all acquisition activities by utilizing a modernized integrated system (integrated grid)

Leverage and extend the existing instance of TIBCO to the extent practicable

Design and implement a business process management (BPM) centric architecture; through the use of "adapters" tailored to communicate horizontally with different software systems to automate and integrate business processes.

Provide the following functions: Business Process Automation, Business Process Modeling, Business-to-business Communication, Enterprise Application Integration and Message broker (integrated grid)

Based on Commercial, Off-the-Shelf (COTS) products: mature, best of breed products provide a solution that is based on best practices

Consolidated acquisition data: continue to provide improved reporting capabilities by centralizing data repositories

Compliant with all federal legislation and mandates: meets all legislative requirements while leveraging existing e-Gov resources

Improve performance and increase efficiencies: improvements in the quality or timeliness of acquisition processing

Migrate existing DOC procurement data to the new system to the maximum extent practicable (integrated grid)

Functional Requirements

General

The solution provides a web-based user interface, support single entry and re-use of data and provide a flexible means of accessing the system and managing data.

The solution enables certain items to be configurable by authorized users without requiring changes to the software (e.g., password length, username convention, PIID number, etc.).

The solution provides automated functionality to establish and maintain tables, business rules, and other agency-defined features.

The solution associates related acquisition documents and allows users to bring forward and re-use data entered in a previous process in any subsequent process without requiring re-entry.

Document Numbering

The solution provides flexible, user-definable document numbering capabilities for all procurement document types consistent with the requirements of the Integrated Acquisition Environment (IAE) component use.

The solution captures a unique system-generated or agency-assigned document number on all acquisition documents.

The solution supports assignment of a unique procurement instrument identifier (PIID) in accordance with the FAR and as required for sharing documents with the Integrated Acquisition Environment (IAE).

The solution shall capture the current system processing status on all documents, and shall provide query history of document actions and changes in status by document number parameter.

Requisitioning

The solution provides flexible, user-definable capabilities and support for the requisitioning process.

The solution provides for the capture of information provided by and about the requestor and system-generated data such as the document number.

The solution includes various documents as attachments, such as statement of work, market research standards and specifications, and sole source justification.

The solution provides the ability to set-up roles for approval and routing of documents.

The solution supports the capture of Line Item information as described in Requirement #4.

Line Items

The solution provides flexible, user-definable line item numbering capabilities and support the entry and re-use of line item data from requisition throughout all subsequent acquisition processes.

The solution supports automatic generation of line item numbers, sub-line items and optional line items.

The solution supports the capture of the following information at the document line, sub-line, or optional line level:

Line number

Line amount

All Accounting classification elements (Bureau Code, Fiscal Year, Project, Task, Fund, Program, Organization, Object Class)

Quantity

Unit of measure

Unit price

Extended price

Description

Need dates

FOB shipping points

Mark for

Ship to locations (destination)

Socioeconomic data

Federal Supply Code

The solution supports the use of zero dollar or un-priced line items.

Electronic Workflow/Routing/ Approval

The solution provides a flexible user-defined electronic workflow process capability to route documents, including attachments, for review/approval, provide automatic notification to users of significant events and assignments and provide re-routing for pending work.

The solution defines several internal and external levels of approval/coordination for use, and prevents unauthorized use.

The solution provides electronic workflow processes and milestone tracking for various types of procurement actions.

The solution allows for the creation of standard workflow plans as well as ad-hoc workflow plans by individual users.

The solution stores planned and actual milestone dates, and provides means of automatic notification of upcoming or missed milestones.

The solution captures user comments on system-maintained acquisition documents and attachments.

The solution notifies the assigned user when an acquisition document status changes via email and internally using the procurement application's in-box.

The solution prevents documents from being checked out in write or edit mode by multiple users at the same time.

The version provides version control and document changes made, particularly those made after approvals.

The solution provides workflow management reports for supervisors and managers to track progress and missed milestones.

Procurement Action Processing

The solution supports procurement business processes by providing the capability to capture and assess requirements and manage them through the full procurement cycle.

The solution provides automated means to screen requirements to locate mandatory or preferred sources in accordance with FAR and Agency guidance.

The solution provides electronic processing capability for the various acquisition types including those described in the IAE standard transactions at http://www.acquisition.gov/std_transactions.cfm.

The solution supports the creation, editing, issuance/execution and administration of all procurement action types defined in the FAR and Agency acquisition guidance, including amendments or modifications to those procurement actions.

The solution provides the capability to create, edit, store, associate and electronically route procurement documents, including attachments and supporting documentation created in other applications/formats (Word, Excel, PDF, etc.)

The solution minimizes the required data or text input by users. The solutions accept text copied from electronic documents created in Microsoft Word or Excel and pasted into appropriate text fields of documents created in the solution.

Document Generation, Management, and Regulatory Research

The solution automates the generation of procurement-related documents and forms in addition to providing electronic research capabilities of applicable federal and agency acquisition guidance.

The solution produces procurement forms listed in Federal Acquisition Regulations Part 53 and agency-defined forms and letters and shall provide a form version control.

The solution generates form outputs that can be viewed online, printed, or saved electronically.

The solution provides the capability to create, store, identify, retrieve, display, and print standard and custom procurement documents.

The solution stores, updates and retrieves federal and NOAA-specific provisions and clauses for use in acquisition documents without programming changes.

The solution maintains all prior versions of federal and NOAA-specific provisions and clauses and their related effective dates.

The solution defines provision/clause use as required, required-when-applicable, or optional based on the principal types and/or purposes of contracts as specified in federal and NOAA-specific acquisition guidance.

Vendor and Product Data

The solution provides the capability to capture and maintain vendor and product data.

The solution provides automated functionality to capture vendor information through import of data from Central Contractor Registration (CCR) and other components or systems of the IAE such as ORCA.

The solution provides the ability to query vendors for associated product/service codes, document numbers, and other user-defined criteria.

The solution provides the ability to exchange vendor data with the DOC agencies core financial system.

Data warehouse

The solution provides for a “mirror-image” of all DOC/NOAA data stored in FPDS-NG.

The solution provides for near real-time, ad-hoc reporting on all data elements available within the database.

FPDS-NG Reporting

The solution supports Federal Procurement Data System-Next Generation (FPDS-NG) reporting and the submission of procurement data to the FPDS-NG.

The solution captures and consolidates all data in the format required by FPDS-NG for reporting.

The solution provides edit-checking/validation in accordance with the FPDS-NG Reporting Manual.

The solution provides electronic transmission of FPDS-NG data and permits transmission/storage of data in Agency database.

System Interface

The solution is interoperable with the IAE components or systems as well as internal agency-run applications (e.g., TIBCO, Sharepoint, Biztalk, Active Directory).

Internal applications include the following:

Core Financial System

Enterprise Acquisition Reporting System

Purchase Card System

Other bureau specific systems (e.g. Property (Sunflower), Budget, Shipping & Receiving, etc.)

Financial Data

The solution collects procurement-related financial data, provides features to support use of that data during the acquisition process and provide the ability to control funds including certifications, commitment, obligation, invoice and payment.

The solution complies with the Joint Financial Management Improvement Program (JFMIP) within the Office of Federal Financial Management.

The solution provides the capability to allocate funds for obligations and de-obligations to multiple lines of accounting line item level or higher (order or contract level).

The solution provides the capability to track funds at line item level or higher order or contract level).

The solution is interoperable with the DoC financial management system (e.g., TIBCO), a Government owned and maintained Oracle-based database system to include Vendor Operations, Commitments, Obligations, Modifications, and Closeout.

Reporting

The solution is interoperable with and provides for transmission of procurement data to external Agency reporting software (e.g. Business Objects, Microsoft, Oracle, SAS and/or Business Intelligence software and predictive analytics).

The solution provides data dictionary to map data in the system database.

The solution includes edit checks necessary to ensure data validity while minimizing data entry.

a. The solution provides standard and customized reports (including an integrated performance management application and spend metrics reports)

The solution provides the ability to generate reports for management decision-making.

Regulatory Requirements

The solution is perpetually compliant with current Federal regulatory and legislative requirements as well as government-wide initiatives (e.g., Section 508 of the Rehabilitation Act, OMB Circular A-123, Integrated Acquisition Environment, Federal Acquisition Regulations, Commerce Acquisition Regulation, Federal Information Processing Standards Publication 200, etc.)

Security Requirements

The solution is perpetually compliant with security requirement as outline in Federal Information Processing Standards Publication 200 and Department of Commerce Information Technology Security standards.

The solution shall meet Certification and Accreditation in compliance with NIST Publication 800-37 and NIST Publication 800-53A.

Acquisition Planning

The solution provides for Advanced Acquisition Planning (AAP). By this, it is meant a forecasting tool that contracting office managers can employ to view the entire imminent and future office portfolio workload for the purpose of planning adequate resources to meet the forecast demand.

The solution identifies DoC's acquisition needs in advance by allowing users to quickly and easily enter intended acquisitions (Business Intelligence software and predictive analytics).

The solution creates and updates individual acquisition plans.

The solution supports collaboration with all parties involved in the acquisition process and increases visibility, transparency, and disclosure.

Additionally, the purpose is to acquire support to include, but not limited to, value added network architecture and connectivity, program management, business architectural design and development, security, and operational and maintenance support for the NIAE system portfolio. The NIAE portfolio currently consists of nine applications that facilitate the pre and post award procurement processes across NOAA acquisition and finance communities of interest. In addition to the DOC/NOAA users, many of the systems have applications that are specifically designed for public access and use. Therefore, the overall objective is to leverage technology to eliminate redundancy, streamline the management and operation of each application, and reduce the costs for the NIAE portfolio. Read the project description and send a brief note of interest indicating your firm's size and capability. The contractor will provide:

-Manage end to end performance of the NIAE Shared Services Environment

-Initially manage FPDS in the NIAE Enterprise Services Environment

-Establish AAOCS model as viable to transition additional applications (FBO, ORCA, CCR, EPLS, eSRS, WDOL, CFDA, Past Performance Reporting, Assistance Community Applications, Transparency Reporting)

-Manage the NIAE Enterprise Services Environment (FPDS, FBO, ORCA, CCR, EPLS, eSRS, WDOL, CFDA, Past Performance Reporting, Assistance Community Applications, Transparency Reporting)

-Design, build and maintain the NIAE Federal Segment Architecture Methodology capable of migrating new, or existing, systems or functionality

-Provide Operations and Maintenance of the application environment.

-Provide a certified Earned Value Management system

-Develop, monitor, and report performance metrics (integrated performance management application)

-Define requirements for NIAE applications to facilitate NOAALink solicitations

-Ensure high-end durability of the NIAE shared services environment (i.e. provide architecture design guidance and infrastructure specifications to Hosting Provider requiring use of quality equipment with complete fail over capability)

-Responsible for systems engineering planning

- Provide enterprise architecture oversight of system infrastructure (i.e. ensure Hosting Provider maintains servers, firewalls, technical refresh schedule, integrated performance management and monitoring, system security and operating system maintainability in accordance with specified performance requirements)

-Responsible for federated Configuration Management Database (CMDB) management (ITILv3)

-Provide acquisition functional expertise horizontally across shared services

-Manage the requirements process

-Provide enterprise architecture oversight to development, test, acceptance and production environments

-Provide configuration management adapted to the IAE Configuration Management Plan www.acquisition.gov/config_mgmt.cfm and Integrated Acquisition Environment (IAE) Governance Description www.acquisition.gov/project_library/IAE%20Governance%20descrip_v1.10_20060809.pdf

-Perform acceptance testing, with government participation, and implement government approved software delivered by the Software Developer for all NIAE applications

-Provide software Quality Control

-Responsible for data accuracy throughout the NIAE Integrated Shared Services Enterprise Architecture

-Responsible for system security (C&A process, updates)

-Provide customer relationship management support; interface with all DOC agencies using NIAE systems

-Define and manage all necessary system interfaces

-Serve as the keeper of NIAE application's code and licenses

-Implement processes and procedures for development

-Work with Software Developers for database changes

- Establish government approved documentation templates for use by the Software Developers

-Responsible for working with Software Developers' (separate contract) implementation of CRs/SPRs to any NIAE System or service area

-Coordinate with Hosting updates and patches to support Operations Systems and Software (OSS) to maintain system performance.

-Define processes and procedures for help desk tiers

-Provide Tier 2 and 3 help desk analysis and support (SPRs and CRs) for all NIAE applications

-Training (Sys Admins, Reporting)

-Interface control management

-Manage and maintain the applicable user interface(s)

-Manage software utilizing Open Source methodologies to the extent practicable

-Test software utilizing Open Source testing methodologies to the extent practicable

-Develop an architectural framework for organizing, integrating and implementing a value added network infrastructure that supports participation (i.e., P4P)

Approaches or solution architecture is based on the NOAALink Technical Standards Profile and The Open Group Architecture Framework (TOGAF).

Solution Information Requested:

Please provide responses to the following:

1. What functionality does your solution offer that is not captured in the functional requirements in this document?
2. What do you believe are the features or other factors that make your solution the most competitive?

3. Please delineate, by number and description, any functional requirements listed above that your solution is unable to meet.
4. Please provide the complete list of federal clients that are currently using your solution in production.
5. Provide at least three recent examples of implementing a web-based, enterprise-wide acquisition system that meets our functional requirements to include integration with an agency finance system. Describe any performance issues with current web-based enterprise acquisition systems and the solutions to resolve these issues. Please provide contact information for these customers.
6. How many of your total implementations have included integrating with the federal agency's finance system? What was the approximate integration cost at each of these agencies (please list by agency)?
7. What has been the scope of your implementation experience (number of systems, number of users, etc)?
8. What type of share-in-savings contracts have you provided to the Government?
9. What innovative solutions have you or your team provided to your perspective clients who are experiencing funding challenges?
10. What type of methodology is used to deploy your system(s)?
11. Do you offer COTS solutions? Is your COTS product customizable, and if so, how so?
12. What type of training do you provide?
    a. What type of manuals do you provide? How often are they updated?
    b. Do you provide Quick Reference Guides for the various modules in the product?
    c. What type of training comes with the product?
13. What is your pricing model, for example, seat license, subscription or enterprise-wide license for a specified purpose? Do you offer an acquisition system as a service instead of, or as well as, a product?
14. If you have a GSA schedule, please provide it as well.
15. It will be the intent of NOAALink to work with the contractor to explore and identify opportunities to migrate the NOAALink portal to a shared services model based on the NOAALink Integrated Acquisition Environment (NIAE). The offeror should propose implementing a portal that uses innovative tools, methods, and systems that promote transparency, collaboration and participation, and cooperation among NOAA line offices/lines of business, DOC agencies, stakeholders, and its business partners. NOAALink requires an innovative fee-for-service or share in savings (revenue) option for future implementation. These revenues could be fees, data services, data sales, etc. NOAALINK will look to the contractor to propose a roadmap that will not only develop revenues but to work to continually reduce the overall cost of operating the portal. NOAALINK expects the contractor to keep all components up to date, use components that bring best value to DOC/NOAA, deploy new components as needed and keep the internet presence competitive with the other governmental departments/agencies (i.e., Web2.0 and/or Gov2.0 and cloud computing).

(END OF DOWN-SELECTS)

# ATTACHMENT F

# PAST PERFORMANCE FORM

## ATTACHMENT F: PAST PERFORMANCE FORM

PAST PERFORMANCE FORM

[ ] Final [ ] Interim - Period Report: From _____ To _____

| | |
|---|---|
| 1. Contractor Name and Address: (Identify Division) | 2. Contract Number: _____<br>3. Contract Value (Base Plus Options): _____<br>4. Contract Award Date: _____<br>Contract Completion Date: _____ |

5. Type of Contract: (Check all that apply) -- [ ] FP [ ] FPI [ ] FP-EPA [ ] Award Fee [ ] CPFF-Completion [ ] CPFF-Term [ ] CPIF [ ] CPAF [ ] ID/IQ [ ] BOA [ ] Requirements [ ] Labor Hour [ ] T&M [ ] SBSA 8(a) [ ] SBIR [ ] Sealed Bid [ ] Negotiated [ ] Competitive [ ] Non-Competitive

6. Description of Requirement:

7. Ratings. Summarize contractor performance and circle in the column on the right the number which corresponds to the performance rating for each rating category. Please see page three for explanation of rating scale.

| | | |
|---|---|---|
| Quality | Comments: | |
| Cost Control | Comments: | |
| Timeliness of Performance | Comments: | |
| Business Relations | Comments: | |
| Customer Satisfaction (End Users) | Comments: | |

Mean Score (Add the ratings above and divide by number of areas rated)

# ATTACHMENT G

# SAMPLE TASK ORDER 1

# BUSINESS MANAGEMENT SERVICES

# BUSINESS ARCHITECTURE

## ATTACHMENT G: SAMPLE TASK ORDER 1—BUSINESS ARCHITECTURE

### NOAALink Future Business Architecture

The Integrated Acquisition Environment is a Presidential E-Gov initiative managed by the US General Services Administration. Its purpose is to simplify, unify and streamline the complex federal acquisition process for government buyers and sellers. There are acquisition functions common to all agencies that are now centrally managed as shared systems. This is accomplished through reuse, sharing data, linking systems and making data accessible to all. IAE systems are a utility that facilitate every phase of the acquisition lifecycle: requirement definition, acquisition planning, synopsis and solicitation, screening and evaluation, award, and contract administration. Additional information on IAE and these systems can be found at Acquisition.gov. The NOAALink Integrated Acquisition Environment (NIAE) maps very closely to the IAE and supports its structured approach.

The purpose of this acquisition is to acquire support to include, but limited to, program management, design and implement the NOAALink federated business architectural, implement a strategic sourcing strategy, software application development, security, and implementing Information Technology Infrastructure Library Version 3 to provide operational and maintenance support for the NIAE system portfolio. The NIAE portfolio currently consists of the seven applications that facilitate the pre and post award procurement processes across NOAA acquisition communities of interest shown below:

1. eSourcing (Spend Analytics, Planning, Strategy)
2. eProcurement (Transactions)
3. eCollaboration (Supply Chain Mgmt, eDesign, Communication)
4. Requisition Processing (Comprizon)
5. Contract Management (Comprizon)
6. Reporting (FPDS-NG)
7. e-Catalogs
8. Finance Sytem (?)

In addition to the government users, many of the systems will have applications that are specifically designed for industry/public access and use. Therefore, the overall objective of this acquisition is to leverage technology to eliminate redundancy, streamline the management and operation of each application, and reduce the costs for the NIAE portfolio.

Figure 1 is a high level conceptual view of the NOAALink Business Environment. This environment is based on the Commerce Business Environment. NOAALink will integrate with the current NOAA systems used to support AGO acquisition and financial processes. AGO currently uses the Department of Commerce's Acquisition toolkit called the Commerce Business Environment (CBE) and the Department's Financial Systems toolkit called the Commerce Business System (CBS). The Obligation and Requisition Standard Interface (ORSI) links these two existing systems: Commerce Acquisition/Business Environment (CBE), Commerce Financial System (CBS), with DOC's acquisition production system called Comprizon, and introduces a third system, the web based requisitioning system called C.Request. TIBCO is the formal name of the middleware used for the ORSI interface. These systems are supported with common business processes and data standards across the acquisition life cycle. This life cycle begins with the customer defining a requirement for acquisition and ends with the archiving of the completed and closed contract. The Commerce Standard Acquisition Reporting System (Comprizon) is an enterprise-wide, client/server contract writing system based on Comprizon.Buy software that automates many key Department of Commerce (DoC) acquisition processes. C.Buy is the proprietary contract writing software used by the contracting and purchasing module of Comprizon. In addition to the primary procurement systems, Commerce utilizes numerous ancillary systems to support their acquisition processes. These include: C. Request, the electronic method for Commerce offices to submit procurement requests to the contracting office; the Enterprise Acquisition Reporting System (EARS); Commerce Business System (CBS); and the OAMFA Web pages. Currently, each bureau utilizes a combination of these systems to meet their acquisition needs. The NOAALink Integrated Acquisition Environment and flowcharts of the current process supported by these systems at NOAA are included as Figures 2, 3, 4.

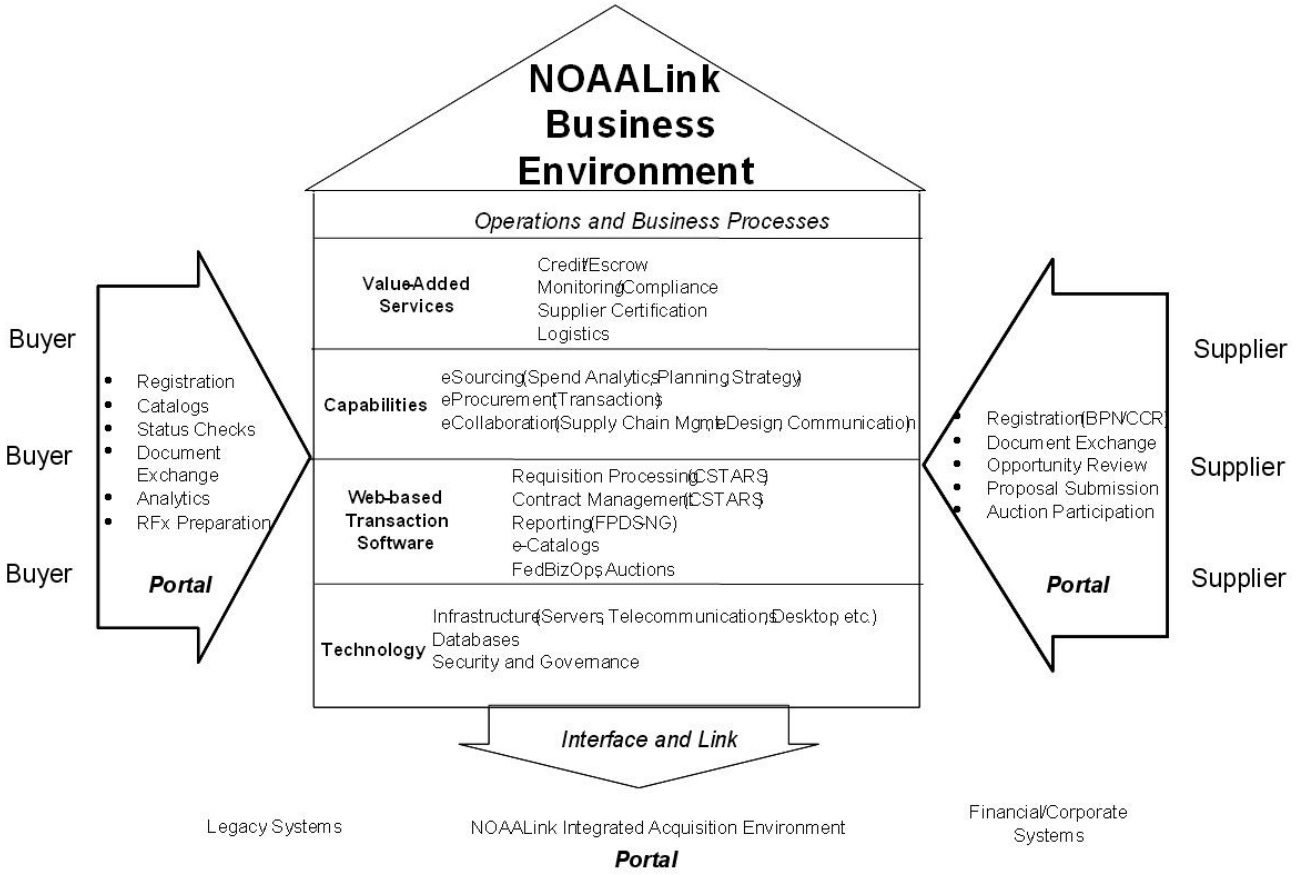



Figure 1

Figure 2 is a high level conceptual view of the NOAALink Shared Services Environment. The functionality of the current fourteen business services is represented by a number of NOAALink Integrated Acquisition Environment (NIAE) systems, common services, and common information technology infrastructure. The goal is much more than a portal, which provides a single human interface to a collection of legacy business systems. The NIAE systems are to be integrated to achieve the benefits of a common infrastructure and services, and to improve ease of use and integrity of the business services. The architecture assumes that NIAE's role in the acquisition process will remain a utility interfacing with procurement systems, contract management systems and financial systems. Today, the interfaces are a combination of human and machine-to-machine interfaces, which will increasingly become machine-to-machine interfaces allowing users to work seamlessly within their contract management system.

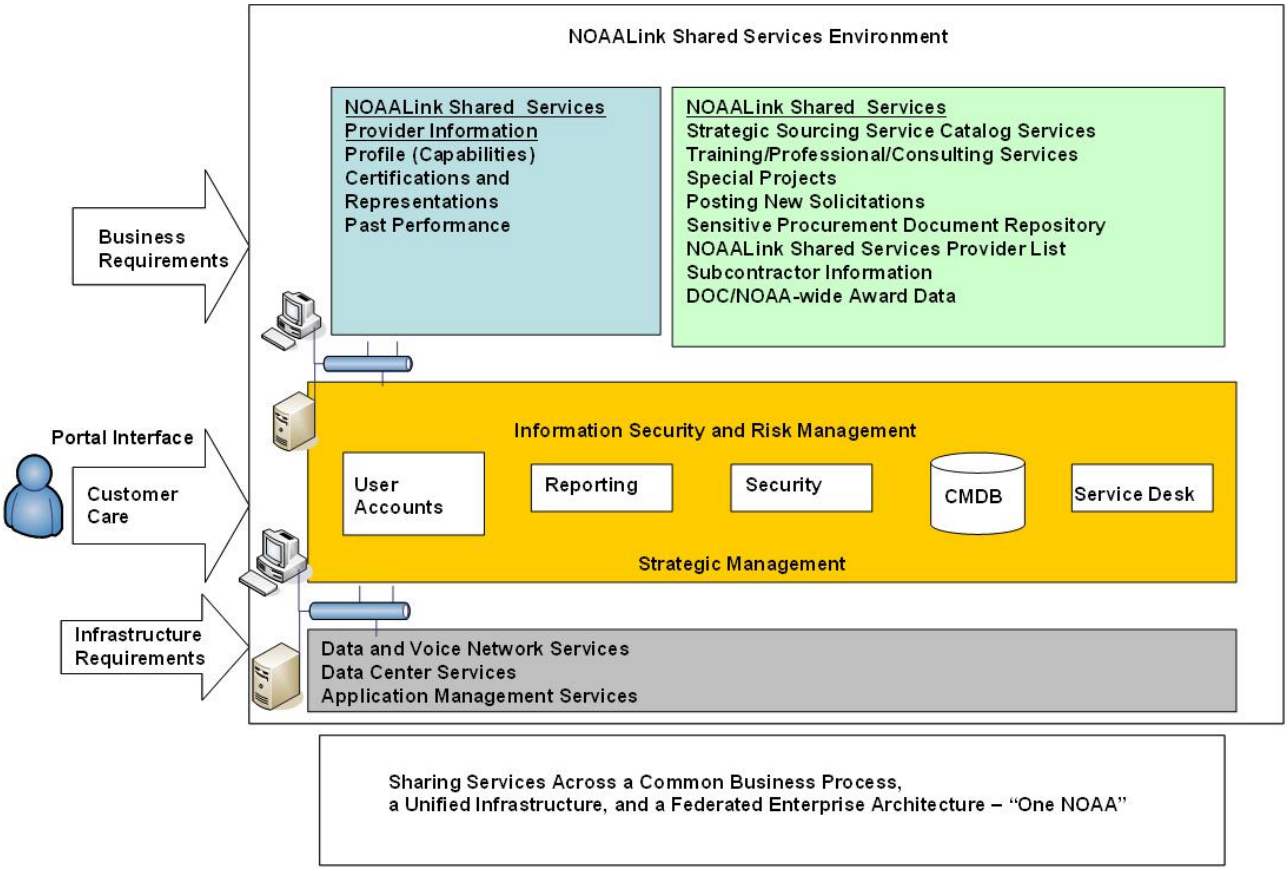



Figure 2

Figure 3 is a high level conceptual view of the NOAALink Integrated Acquisiton Environment.

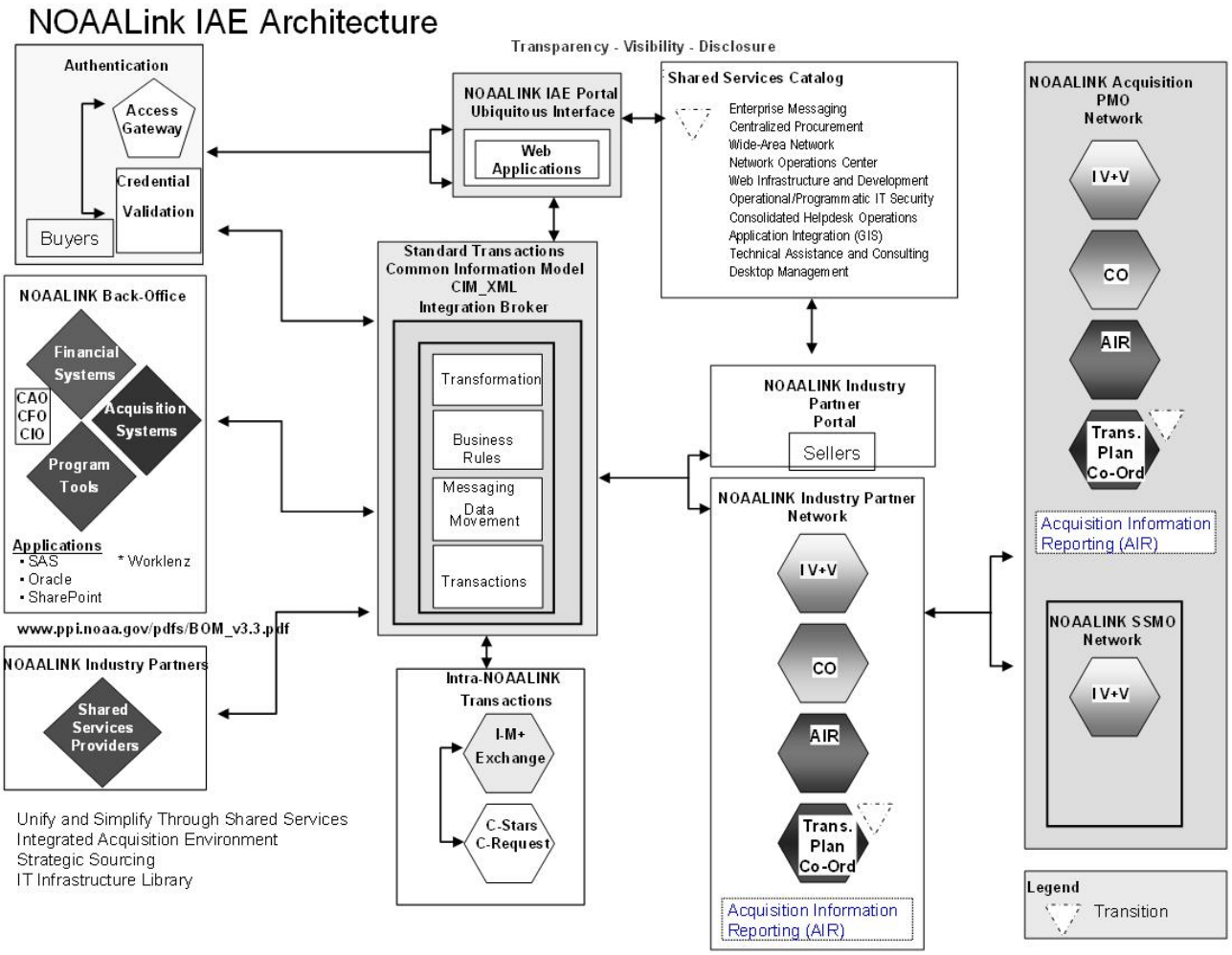



Figure 3

Savings will occur because the architecture will be greatly simplified, and redundancy will be eliminated by implementing and utilizing Lean6 processes. Currently, the NIAE systems aren't able to share data in order to reduce manual re-entry. For example, seller information collected isn't shared with other contracting officers and staff. However, greater data sharing introduces and increases the need for configuration control and regression testing, which require time, human and financial resources. Human resources are specifically mentioned because there are few NOAA subject matter experts who understand both acquisition and the systems that support it. Today each system has its own data base with unique data elements. Each system has to manage their own user accounts, complete security certification and accreditations, provide reporting capabilities, operate a help desk, and either buys or rent hardware for development, testing, and primary and backup production sites. NOAA expects to save 50% of the current annual operating costs for the current acquisition and financial systems and support staff by migrating to the target federated business architecture.

**Acquisition Strategy**

A significant portion of NOAALink's acquisition strategy is designed to support transitioning from the current set of Commerce Business Environment stove-piped systems to the target architecture with a single ubiguitious front-end user interface. Rather than continue the practice of awarding contracts from each system, the Government PMO will establish the Acquisition Architecture and Operations Contract Support (AAOCS) Office which will have overall task responsibility for operating the systems and migrating to the target federated business architecture and transitioning
from the current to future NIAE state. The NOAALink contract will initially be focused on migrating to the target federated business architecture and providing strategic sourcing through shared services. Options to transition other NIAE systems and invoking fee-for-service managed by the AAOCS may be exercised at any time during contract period of performance. Additionally, the Government PMO will also award separate Customer Care tasks for Service Desk (ITILv3) and consolidated hosting, which over time will support all of the NIAE systems. Finally, the acquisition strategy is designed to maintain competition for hardware and software changes needed for system enhancements and architectural changes using strategic sourcing. The AAOCS will develop hardware and software

requirements but the Government PMO will competitively award contracts for hardware and software enhancements. The Government PMO expects to award four to six software development contracts per year. The government will provide appropriate hardware specifications and system software visibility as needed using a Federated Enterprise Reference Architecture (FERA). Figure 4 illustrates the acquisition strategy.

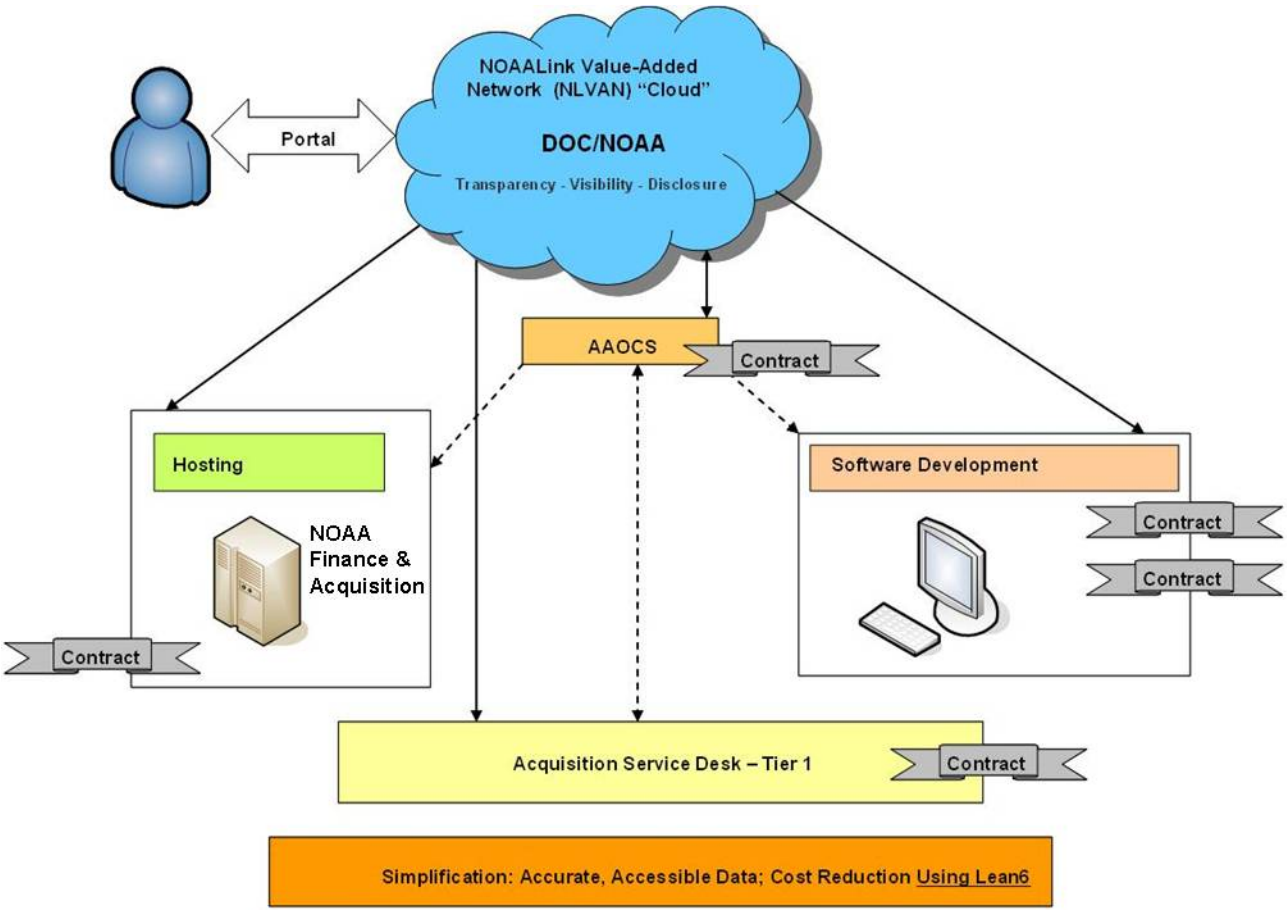



Figure 4

The process is shown in Figure 5 below and the roles and responsibilities for the AAOCS, Software Developers, Service Desk, and Hosting providers are detailed in Tables 1 and 2 below.

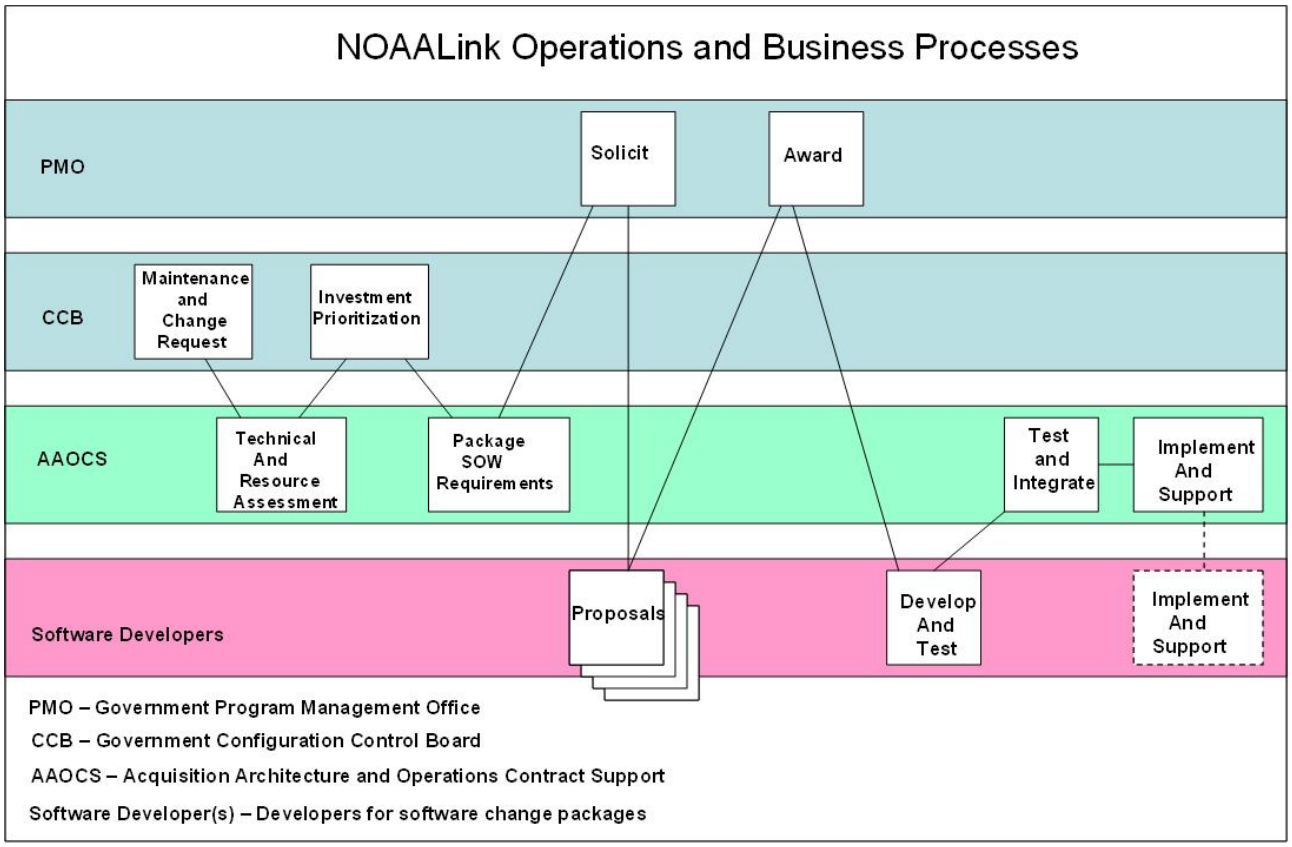



Figure 5

| Management Component | Service Areas |
|---|---|
| **Strategic Management** | Decision Support<br>Enterprise Architecture Services<br>Project Management Services |
| **Customer Care** | End-User Service Center Services<br>Desktop Management Services<br>Collaboration Services |
| **Infrastructure Management** | Data and Voice Network Services<br>Data Center Services<br>Application Management Services |
| **Business Management** | Strategic Sourcing Service Catalog Services<br>Training/Professional/Consulting Services<br>Special Projects |
| **Information Security and Risk Management** | Security Services<br>Continuity of Operations/Disaster Recovery |

| Shared Service Provider | Roles and Responsibilities |
|---|---|
| **Government** | -Oversight authority for NIAE and AAOCS, Shared Services, Consolidated Hosting, Software Developer(s), and Acquisition Service Desk (Customer Care) contracts<br>-Approval authority – includes but is not limited to: Contract Deliverables, Requirements Definition associated with software change packages, Test Planning and Procedures, Test and Acceptance, Deployment, and Standard Operating Procedures.<br>-Manage and execute solicitation efforts to establish Software Developer(s) for software change packages and hardware changes<br>-Provide government functional expertise<br>Manage and execute existing contract transition using target business architecture |
| **Acquisition Architecture and Operations Contract Support (AAOCS) Business Management** | -Manage end to end performance of the NIAE Shared Services Environment<br>-Initially manage the NIAE Federated Enterprise Services Environment<br>-Establish AAOCS model as viable to extend to additional applications (Capabilities, eSourcing (Spend Analytics, Planning, Strategy), eProcurement (Transactions),eCollaboration (Supply Chain Mgmt, eDesign, Communication) Web-based Transaction Software, Requisition Processing (Comprizon), Contract Management (Comprizon), Reporting (FPDS-NG), e-Catalogs, FedBizOps, Auctions, Transparency Reporting)<br>-Manage the NIAE Federated Enterprise Services Environment Value-Added Services Credit/Escrow, Monitoring/Compliance, Supplier Certification, Logistics, Past Performance Reporting, Assistance Community Applications, Transparency Reporting)<br>-Design, build and maintain the IAE Open Source Enterprise Architecture capable of accepting new, or existing, systems or functionality<br>-Provide Operations and Maintenance of the application environment.<br>-Provide a certified Earned Value Management system<br>-Develop, monitor, and report performance metrics<br>-Manage necessary data migration from legacy systems<br>-Ensure high-end durability of the NIAE services environment (i.e. provide architecture design guidance and infrastructure specifications to Hosting Provider requiring use of quality equipment with complete fail over capability)<br>-Responsible for systems engineering planning<br>- Provide Federated Business Enterprise Architecture oversight of system infrastructure (i.e. ensure Hosting Provider maintains servers, firewalls, technical refresh schedule, performance monitoring, system security and operating system maintainability in accordance with specified performance requirements)<br>-Responsible for database management<br>-Provide acquisition functional expertise across services<br>-Manage the requirements process<br>-Provide Federated Business Enterprise Architecture oversight to development, test, acceptance and production environments<br>-Provide configuration management<br>-Perform acceptance testing, with government participation, and implement government approved software delivered by the Software Developer<br>-Provide software Quality Control<br>-Responsible for data accuracy throughout the NIAE Integrated Services Enterprise Architecture<br>-Responsible for system security (C&A process, updates)<br>-Provide customer relationship management support; interface with all DOC agencies using NIAE systems<br>-Define and manage all necessary system interfaces<br>-Serve as the keeper of NIAE application's code and licenses<br>-Implement processes and procedures for development<br>-Work with Software Developers for database changes |

| | |
|---|---|
| | - Establish government approved documentation templates for use by the Software Developers<br>-Responsible for working with Software Developers' (separate contract) implementation of CRs/SPRs to any NIAE System or service area<br>-Coordinate with Hosting updates and patches to Operating System (OS) to maintain system performance.<br>-Define processes and procedures for service desk tiers<br>-Provide Tier 2 and 3 service desk analysis and support (SPRs and CRs)<br>-Training (Sys Admins, Reporting)<br>-Interface control management<br>-Manage and maintain the applicable user interface(s)-Ubigitious Portal<br>*Competitive award of one contract for federated business enterprise architecture establish seven (7) AAOCS model applications, and operations contract support. |
| **Software Developer Infrastructure Management** | -Responsible for software performance enhancements and change requests<br>-Will conduct all phases of new development (develop, design, test deliver, support) based on individual contracts issued for separate or bundled new requirements, enhancements or releases<br>-Will provide all necessary documentation with each new development; documentation will be based on templates and standards approved by the Government<br>-Will work with AAOCS to complete software change package assignments<br>*Competitive award of one contract for software development and support contract support |
| **Service Desk Provider Customer Care** | -Service Desk Tier 1 will be provided by Acquisition Service Desk - consolidated NOAALink service desk provider.<br>-Any NIAE item not handled by the Tier 1 service desk will be forwarded to the AAOCS for resolution once the AAOCS has assumed operations responsibility.<br>-Categorizing and defining 'Tiers' above level I for NIAE will be the responsibility of the AOCS<br>*NIAE contract for Consolidated Service Desk (Customer Care) will be in place by NLT 1QFY10. |
| **Hosting Provider Infrastructure Management**<br><br>**Information Security and Risk Management** | -Provide secure location for hosting complete system environment to include development, testing, acceptance and production.<br>-Responsible for maintaining the operating system by apply all required updates and patches.<br>- Address COOP requirements<br>-Environment shall meet all necessary Government safety and security requirements<br>-Hoster will only be responsible for physical hosting of development, test, acceptance and production environments to include all necessary fail over and security capabilities. (All releases, software and database changes, patches, and back ups of the application layer will be performed by the AAOCS).<br>- Provide and manage a secure IP based value-added networked data center to host consolidated system environment, to include:<br>▪ development environment<br>▪ testing / quality assurance (QA) environment<br>▪ acceptance (including IV&V) environment<br>▪ primary production environment<br>▪ back-up production environment (COOP)<br>▪ security<br>▪ data center physical security<br>▪ security policies and procedures<br>- Provide dedicated server hardware or utility computing hardware, value-added network (cloud computing) and Local Area Network (LAN) equipment (i.e. routers, switchers, firewalls, load balancers, etc) to support consolidated hosting environment |

| | |
|---|---|
| | - Provide network bandwidth to support consolidated hosting environment<br>- Conduct infrastructure administration and operations for consolidated hosting environment<br>- Provide maintenance and support to consolidated hosting environment infrastructure and servers, to include:<br>▪ implement approved infrastructure configuration changes<br>▪ establish and maintain configuration and system parameters in a consistent manner across like server environments<br>▪ execute processes for the proper maintenance and functioning of infrastructure systems and equipment, i.e. load balancing / tuning (systems monitoring, problem diagnostics, troubleshooting, resolution, escalation, security management and capacity planning/ analysis), configuration management, etc.<br>▪ enable authorized change request execution by NIAE Government PMO or designated representative<br>▪ execute environment creation, upgrade and refresh in accordance with NIAE Government PMO guidance<br>▪ maintain consistency of non-sizing and non-platform specific environment parameters and infrastructure system settings across development, test/QA, acceptance and production environments<br>▪ implement and administer appropriate infrastructure management tools across all instances<br>▪ patch and/or update infrastructure software (i.e. operating system, web server software) as needed to maintain security and performance standards<br>▪ correlate internal change requests to NIAE Government PMO-defined tracking codes<br>▪ coordinate impacts of all infrastructure maintenance with NIAE Government PMO or designated representative in accordance with Change Control and Configuration Management procedures<br>- Hosting Provider will only be responsible for physical hosting of development, test, acceptance and production environments to include<br>▪ all necessary fail over and security capabilities. (All releases, software<br>▪ and Configuration Management DataBase (CMDB) changes, patches, and back ups of the application layer<br>▪ will be performed by the AAOCS).<br>- Environment shall meet all necessary Government safety and security requirements<br>- Manage storage to include back-up and recovery<br>- Coordinate with AAOCS and Government PMO for system migration planning to and implementation in consolidated hosting environment<br>- Define repeatable, scalable methodology for migrating NIAE systems into consolidated hosting environment using Lean6<br>- Define and document standard operating procedures for maintaining specified service levels and measuring performance<br>* Leverage GSA Networx Universal Contract to meet requirements<br>**Anticipate one contract for the hosting provider. |

Table 2

**NIAE Business Intelligence (BI) Component**

NOAA intends the NOAALink Integrated Acquisition Environment (NIAE) in addition to servings as its federated business enterprise architecture the NIAE is to be its full cycle procurement solution to satisfy NOAALink Business Requirements (incorporated by reference). The National Oceanic and Atmospheric Administration (NOAA) seeks an innovative commercial solution to support the NOAA acquisition community. The NIAE Business Intelligence (BI) component will leverage existing business applications i.e., SAP, SAS, TIBCO, Oracle, Sharepoint, Procuri, and use commercial off-the-shelf (COTS) software. The COTS software will be integrated with acquisition and financial systems used at NOAA. The NIAE follows the framework of the Integrated Acquisition Environment (IAE) Governance Description and Integrated Acquisition Environment (IAE) Configuration Management Plan. The

NIAE is envisioned to yield significant reductions in business costs. These reductions will be realized by leveraging existing E-Gov and GSA initiatives, - ITI, FSSI and competitive best value-added network products and services by leveraging Networx Universal and/or e.g., GovWorks, and/or the National Business Center. The goal of implementing the NIAE is to reduce NOAA"s overall costs for procuring IT products and services is 30% within 18 months after contract award and establish a stabilized costs baseline for the remainder of the contract.

The BI will integrate with the current NOAA systems used to support AGO acquisition and financial processes. The NOAALink contract supports opportunities for improvement and recommendations in conjunction with the larger NOAA Business Process Reengineering effort to improve the efficiency and effectiveness of the financial and administrative services at NOAA. BI will integrate with internal and external systems, including the NOAA NFA Administrative Support Centers (i.e., Corporate Administrative Office) – CASC, MASC, EASC, WASC, and AOD – and NOAA Line Offices and their laboratories, field and regional office – NOS, NWS, NESDIS, NMAO, OAR, NMFS, and the Integrated Acquisition Environment (IAE) systems which includes (but is not limited to) FedBizOpps, and the Business Partners Network which includes the Federal Procurement Data System – Next Generation (FPDS-NG). NOAA desires that the BI maintain only data that is moderate or below according to the Federal Information Processing Standards (FIPS) 199 Standards for Security Categorization of Federal Information and Information Systems evaluation and description. Through a process of integration and convergence BI will support a rationalized infrastructure.

**Additional Timeline Considerations**

Figure 6 illustrates a current state for planning purposes of contractual dates for each NIAE system. The AAOCS needs to consider these dates in determining the transition plan for the takeover responsibility of operations for each system and to plan the migration of each system into the new federated business enterprise architecture. The schedule will be rationalized after contract award.

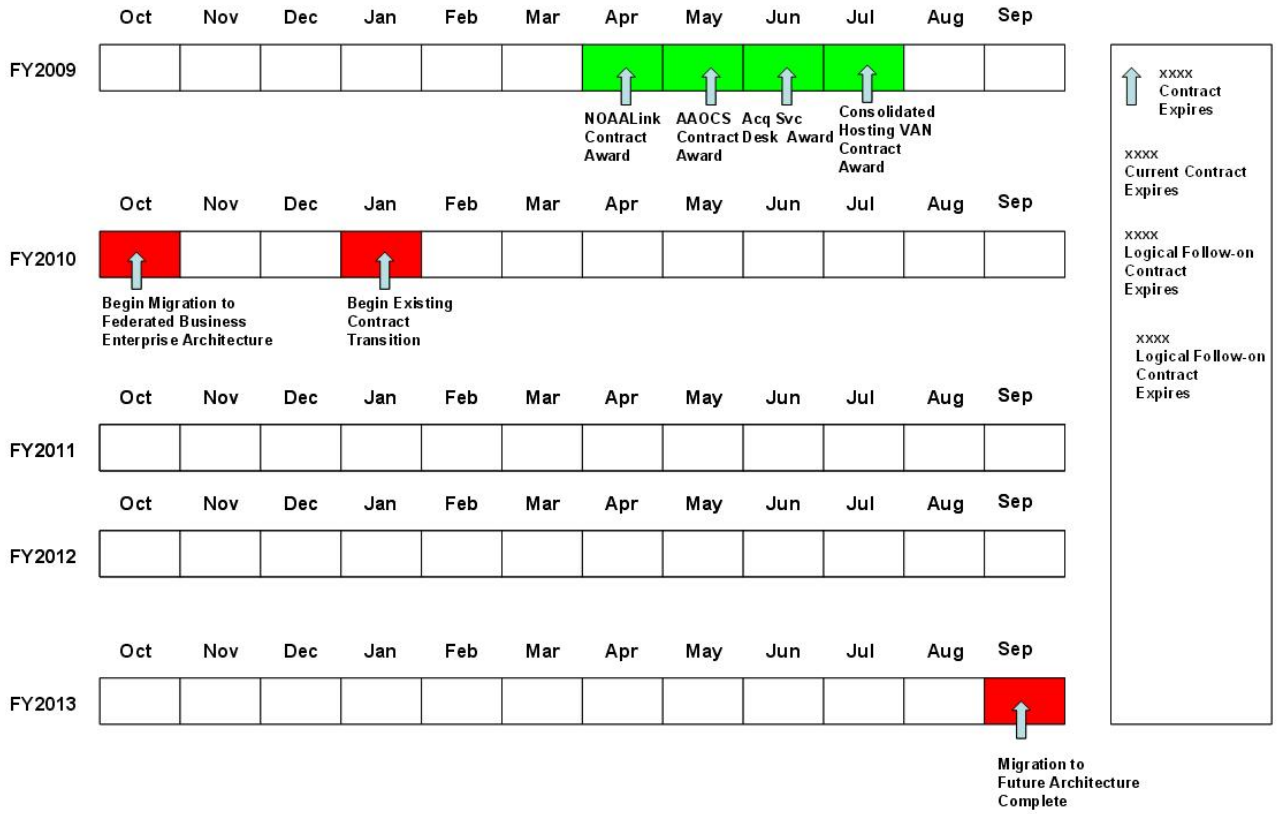



Figure 6

**Scope of Work**

NOAA seeks technical and functional expertise in carrying out its responsibilities and in the development, implementation, maintenance and operation of its NOAALink Integrated Acquisition Environment (NIAE). The government desires the contractor to:

- Support the development and innovation of strategies, methodologies and guidance for defining, maintaining and implementing the target NIAE Federated Business Enterprise Architecture.
- Support the evaluation and analysis of information for transformation activities and to identify redundancies, gaps and opportunities for cross-agency collaboration, and optimal use of IT assets using Lean6.
- Migrate seven (7) NIAE applications into the NIAE Federated Business Enterprise Architecture.
- Maintain and evolve the NIAE integrated services (applications) to ensure continued operations and alignment with changing business requirements, emerging technologies and standards, and industry best practices.
- Support the operations and maintenance of automated tools to analyze architecture information, and analysis and recommends for future tool support
- Support outreach, education and communication efforts to promote awareness of NIAE integrated services initiatives using Lean6.
- Develop and deliver training material to assist agency users in implementing NIAE integrated services initiatives using Lean6.
- Provide administrative and logistical support and detailed technical expertise and advice to the NIAE Program Management/AAOCS Office (government PMO) in support of the charter and mission.
- Assist in the coordination of NIAE activities with key stakeholders (e.g. AGO, CFO, and CIO Acquisition Officer, Office of Chief Information Officer) LoBs and DOC agencies) to ensure alignment and buy-in using Lean6.
- Assist in the coordination of NIAE activities with relevant DOC/NOAA forums to facilitate an integrated and coherent strategy for operationalizing NIAE, and industry associations to ensure that the NIAE reflects industry best practices and is better positioned to facilitate a government/industry partnership in the delivery of eGov services using Lean6.

**Quality Assurance**

The government shall evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan. This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable quality level (AQL).

**Task Description**

| TASKS | |
|---|---|
| **1.0 Shared Services Integration** | |
| **1.1 Project Management** | |
| **0.0.1** | **Project Management Planning** |
| 0.0.1.1 | Perform a Post-award Orientation, as stated in FAR 42.501, to review all aspects of the contract with the government and the services integration staff that will perform the work. |
| 0.0.1.2 | Define and document the AAOCS Project Management Plan and deliver: Initial document with Technical Proposal, Revised Version - 30 days after contract award, Final Version - 60 days after award. |
| 0.0.1.2.1 | As a minimum standard, describe in the AAOCS Project Management Plan the Project Management methodology, the Systems Development Life Cycle (SDLC) Methodology, identify the offeror's Capability Maturity Model Integration(CMMI) level, define the program staffing structure and personnel, provide roles and responsibility clarification, and document the project management processes in the context for how the project will be managed. The plan shall address: schedule and cost management using earned value management, scope management (i.e. system change control), issue management and escalation, risk management, information distribution, program toolset, status reporting, and payment schedule information. |
| 0.0.1.2.2 | Establish methodology, audience, and frequency to collect user |

| TASKS | |
|---|---|
| | feedback and satisfaction regarding service areas and make results available via the project management portal. Document in project management plan. |
| 0.0.1.2.3 | Maintain AAOCS Project Management Plan and make accessible to the government on the project management portal. |
| 0.0.1.2.4 | Produce an updated AAOCS Project Management Plan in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.0.1.3 | Establish project management portal for project artifacts and other needs as stated in these requirements within 30 days after award. |
| 0.0.1.4 | Provide a Performance Measurement Baseline (PMB) that identifies all the deliverables and work packages and their delivery schedule. See FAR 34.202. |
| 0.0.1.5 | Provide and maintain an integrated project schedule (.mpp file) that is organized by deliverable and outlines how all work packages will be accomplished. The project activity will be resource-loaded, and clearly show contractor and government involvement. |
| 0.0.1.6 | Provide a 100% dedicated program manager to facilitate successful planning, management, implementation, and sustainment. |
| 0.0.1.7 | Provide Capability Maturity Model Integration (CMMI) level 3 or higher for performance of services. |
| 0.0.1.8 | Assign Certified CMM Assessor, Certified Project Manager, Certified System Security Engineering Capability Maturity Model (SSE-CMM) Assessor, ITIL Certified Managers to oversee project activity and apply best practices |
| 0.0.1.9 | Coordinate delivery of requirements to the Software Developer for software enhancements, and receipt of the developed software product for implementation. Software development may be conducted by a separate vendor under a separate contract. |
| 0.0.1.10 | Define and document the AAOCS Risk Management Plan (and associated risk tracking) and deliver: Initial document with Technical Proposal. |
| 0.0.1.10.1 | Maintain the Risk Management Plan (and associated risk tracking) with quarterly updates and make accessible to the government on the project website. |
| 0.0.1.11 | Define and document the AAOCS Communications Plan and deliver: Draft - 60 days after contract award, Revised Version - 90 days after award, Final Version - 120 days after award. |
| 0.0.1.11.1 | Provide a process to disseminate information to agencies to numerous and varied audiences to include but not limited to DOC/NOAA Senior Procurement Executives, Congress, Agency Heads, System Administrators, user community, and contract writing system owners. |
| 0.0.1.11.2 | Maintain the Communications Plan and make accessible to the government on the project management portal. |
| 0.0.1.11.3 | Produce an updated Communications Plan in accordance with Release/Version and Service Release impacts (if applicable) or as required, but at a minimum update annually and submit to the Government PMO for approval. |
| 0.0.1.12 | Provide and implement an Information Technology Infrastructure Library (ITIL) version 3 based ITSM framework and/or system to satisfy NIAE requirements identified under Requirements section. This is to be used with the Capability Maturity Model Integration (CMMI). |
| 0.0.1.13 | Assign Certified ITIL/ITSM Managers to oversee project activity and apply best practices |
| 0.0.1.14 | Review the software licenses associated with FPDS-NG and (1) determine if all licenses are clear of any infringements and/or restrictions; (2) determine that there are not duplicative |

| TASKS | |
|---|---|
| | license; and (3) identify license version. The final report shall identify all licenses reviewed and the findings for each. Deliver FPDS License/Title Search Draft Report and a Final Report in accordance with planned dates in the project management plan and schedule. |
| **0.0.2** | **Earned Value Management** |
| 0.0.2.1 | Measure all project activity for schedule and cost performance using Earned Value Management best practices. See FAR 34.201. |
| 0.0.2.2 | Provide a certified Earned Value Management system. See FAR 34.201. |
| 0.0.2.3 | Define and document earned value processes within the NIAE Services Integration Project Management Plan. Definition shall explain the EVM metrics to be applied, the monthly reporting frequency and delivery method, and the rules for achieving the earned value on accomplished tasks. |
| 0.0.2.4 | Apply earned value metrics to the work breakdown structure (WBS) at the predetermined control account level. The WBS and the Performance Measurement Baseline shall be in alignment. |
| **0.0.3** | **OMB Reporting** |
| 0.0.3.1 | Provide content assistance for requested information related to Circular No. A-11 Part 7 - Planning, Budgeting, Acquisition, and Management of Capital Assets. This includes, but is not limited to, responses to capital planning and investment control related data calls, budgeting, Exhibit 300 content, and informational requests. |
| 0.0.3.2 | Provide reporting and research assistance for Freedom of Information Act (FOIA), congressional, and audit-related requests. |
| **0.0.4** | **Performance Reporting** |
| 0.0.4.1 | Status Reporting |
| 0.0.4.1.1 | Support and participate in Project Reviews at the NOAALink Internal Review Board (NIRB) meetings. The NIRB is charged with the management, control and technical execution of the NIAE Shared Services Integration contract. AAOCS shall attend IRB reviews and meetings. NIRB meetings will be held biweekly. Topics to be included at NIRB meetings and reviews will include, but are not limited to:<br>• Identification and forecasted spend analysis trends, recurring problems, potential shortfalls, and/or troubleshooting,<br>• Review of Monthly Performance Reporting across all project services,<br>• Presentation of items that have the potential to impact life cycle cost, management, and/or productivity, Commercial Off-the-Shelf (COTS) analysis reports identifying any new products or upgrades to existing products necessary to accomplish the tasks<br>• Schedule status, along with issues and risks associated with meeting schedule milestones. |
| 0.0.4.1.2 | Support and participate in Management Reviews. AAOCS personnel (COR/PM) with authority to make cost and schedule decisions shall attend Management Reviews. Management Reviews shall include, but not be limited to, the following objectives:<br>• Resolve issues that could not be resolved at technical reviews or within the NIRB/CCB,<br>• Arrive at agreed-upon mitigation strategies for near- and long-term risks that could not be resolved at technical reviews or within the NIRB/CCB,<br>• Schedule status, along with issues and risks associated with meeting schedule milestones,<br>• Obtain commitments and Government approval needed for timely accomplishment of the project. |
| 0.0.4.1.3 | Provide Monthly Steward Report that reports status and planning information pertaining to schedule and cost performance, issues, risks, release schedule, and services delivery performance metrics. |

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| 0.0.4.2 Performance-based Self-Evaluation |
| 0.0.4.2.1 Provide a self-assessment evaluation report every six months as input to the performance-based incentive determination by the government. |
| 0.0.4.3 Services Delivery Performance Metrics |
| 0.0.4.3.1 Project Management – The Project Management Plan shall provide with the Technical proposal performance metrics that include the following. The AAOCS may propose additional measures. |
| 0.0.4.3.1.1 Schedule (Milestone) Timeliness |
| 0.0.4.3.1.2 Deliverables Timeliness |
| 0.0.4.3.1.3 Earned Value Management (Maximum ranges from baseline - + or - 5% range for schedule, + or - 5% for cost) |
| 0.0.4.3.1.4 Systems Development Life Cycle (SDLC) Compliance |
| 0.0.4.3.2 Configuration Management - The Configuration Management Plan shall provide with the Technical proposal performance metrics that include the following. The AAOCS may propose additional measures. |
| 0.0.4.3.2.1 System Problem Report (SPR) closure rate |
| 0.0.4.3.2.2 Percentage of SPRs that are fixed according to the timeline |
| 0.0.4.3.2.3 Aging of software problems |
| 0.0.4.3.2.4 Change Request (CR) closure rate |
| 0.0.4.3.2.5 Aging of Change Requests (CRs) |
| 0.0.4.3.2.6 Technical Analysis response time |
| 0.0.4.3.2.7 Release/Version count per year |
| 0.0.4.3.3 Quality Control - The Quality Control Plan shall provide with the Technical proposal performance metrics that include the following. The AAOCS may propose additional measures. |
| 0.0.4.3.3.1 Product Reliability - volume of software problems by month |
| 0.0.4.3.3.2 Quality of Test Environment and Test Procedures and documentation |
| 0.0.4.3.4 SPRs and CRs (Service Desk Tier 2 and 3) - The SPRs, CRs, and Data Management Services SOP shall provide metrics that include the following. The AAOCS may propose additional measures. |
| 0.0.4.3.4.1 Speed of response |
| 0.0.4.3.4.2 Propose Closure Rate for SPRs and closure rate for CRs (Tier 2 & 3) |
| 0.0.4.3.4.3 Count of Repeat Contact for Same Problem (By Individual, Agency, Topic, etc.) |
| 0.0.4.3.4.4 Proposed service level agreement (SLA) for of SPRs and CRs |
| 0.0.4.3.4.5 Customer Satisfaction |

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| 0.0.4.3.5 Training |
| 0.0.4.3.5.1 User Satisfaction with the training |
| 0.0.4.3.6 Data Management |
| 0.0.4.3.6.1 Error rate of data mapping by Agency shall not be more than 3% |
| **Maintenance** |
| **0.1.1 Training** |
| 0.1.1.1 Provide web-based training, classroom, and computer-based training throughout the federal government and at multiple locations. The training will include the following subjects: Lean6, Agency System Administration, Data Entry, Standard Reporting and Advanced (Ad Hoc) Reporting. |
| 0.1.1.1.1 Assign Certified Lean6 Managers to oversee project activity and apply best practices |
| 0.1.1.1.2 Present training content using federal procurement lexicon. |
| 0.1.1.2 Provide Training Plan that documents the training alternatives, description of curriculum, organizational approach, assumptions/constraints, and the groups of users to be trained, the location of the training, the frequency/schedule, and feedback mechanisms for continuous improvement. Training design and delivery shall utilize government contracting lexicon. Final Version - 120 days after award. |
| 0.1.1.2.1 Maintain the training plan and training materials. Produce revised training plan and training materials in accordance with Release/Version and Service Release impacts, but at a minimum revise annually and submit to the Government PMO for approval. |
| 0.1.1.3 Collect feedback (positive and negative) from the user community about training. The unedited feedback shall be made available to the Government PMO via the project management portal. |
| 0.1.1.4 Provide capability to support posting of training materials (including screenshots) on any government website. |
| 0.1.1.5 Provide and maintain an integrated online, searchable, printable, readable User Manual accessible via the application portal. |
| 0.1.1.5.1 Produce revised User Manual in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum revise annually and submit to the Government PMO for approval. The user manual needs to include screen captures of functionality. |
| 0.1.1.6 Provide and maintain integrated online, searchable, printable, readable agency System Administrator Manual accessible via the application website. |
| 0.1.1.6.1 Produce revised Systems Administrator Manual in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum revise annually and submit to the Government PMO for approval. The Systems Administration manual needs to include screen captures of functionality. |
| **0.1.2 Data Management** |
| 0.1.2.1 Define and document in Service Desk and Data Management Services Standard Operating Procedures (SOP) that include service level agreement and performance measures for data management requests. |
| 0.1.2.2 Provide the capability to perform system-wide data corrections or updates. (e.g. NAICS code |

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| | changes for IDV that also impacts task orders against) |
| **0.1.3** | **System and Performance Monitoring** |
| 0.1.3.1 | Manage end-to-end performance of the NIAE Services Environment. |
| 0.1.3.2 | Design, build and maintain the NIAE Open Source Enterprise Architecture capable of accepting new, or existing, systems or functionality. |
| 0.1.3.3 | Provide Operations and Maintenance of NIAE Services Integration environment. |
| 0.1.3.4 | Ensure high-end durability of the NIAE services environment (i.e. system design with quality equipment and complete fail-over capability). |
| 0.1.3.5 | Responsible for systems engineering (maintain servers, firewalls, technical refresh schedule, performance monitoring, system security, operating system durability). |
| 0.1.3.6 | Responsible for data base management, administration and performance. |
| 0.1.3.7 | Monitor and maintain that all URL links and their application components for the integrated services environment are accessible, accurate and working. |
| 0.1.3.8 | Provide, as a minimum standard, monthly reporting on system performance in accordance with established standard operating procedures. |
| 0.1.3.9 | System downtime will not exceed 8 hours per 12-month period (approximately 99.9% up time) exclusive of scheduled down time. Scheduled down time may occur not more frequently than once each month for a time period of up to 24 hours (noon Saturday to noon Sunday) with no scheduled down time during the month of September. |
| 0.1.3.10 | Process every real-time data input transaction within one second allowing for peaks of at least 100 transactions per second. |
| 0.1.3.11 | Present a screen to users within 5 seconds |
| 0.1.3.12 | Provide capability to return online standard reports within 10 seconds exclusive of network transit time. |
| 0.1.3.13 | For all reports, standard and ad hoc, that are less than 5,000 lines and there are no time-outs. |
| 0.1.3.14 | For all reports, standard and ad hoc, over than 5,000 lines the time-out rate is not more than 5%. |
| 0.1.3.15 | Changes to the technical environment which may negatively impact data submission and/or reporting shall not be implemented between July and October. |
| 0.1.3.16 | Support input user community size of approximately 200,000. Present users of the system include: Federal Government (DOC/NOAA), Public, and Industry. |
| 0.1.3.17 | Support up to 250,000 registered users. |
| 0.1.3.18 | Support up to 40,000 concurrent users. |
| 0.1.3.19 | Store over 35 million new transactions or records per year |
| 0.1.3.20 | Permanently store all historical data on-line so that it is available to all users. This is about 30 years of procurement data and any related reference data. Capability to transfer and ingest current system historical records to present. |
| **0.1.4** | **Maintenance Operations and Issue Response** |
| 0.1.4.1 | Manage and Operate the interface to the CBS/CBE, under AAOCS operations prior to 4th Quarter FY2010. |
| 0.1.4.2 | Define and Document the standard operating procedures for operations and maintenance, Tier 2/3 help desk, and interrelationship with the Acquisition Service Desk and Consolidated Hosting related coordination. |

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| 0.1.4.3 | Monitor and identify problems. |
| 0.1.4.4 | Analyze problem to determine root cause. |
| 0.1.4.5 | Develop Corrective Action |
| 0.1.4.6 | Integrate and Test Corrective Action |
| 0.1.4.7 | Assess Risk of Improved System |
| 0.1.4.8 | Implement and Field |
| **0.1.5** | **Data Quality Monitoring and Control** |
| 0.1.5.1 | Define and document the AAOCS Data Quality Plan and deliver: Initial document with Technical Proposal, Revised Version - 60 days after contract award, Final Version - 90 days after award. |
| 0.1.5.1.1 | Maintain AAOCS Data Qualtiy Plan and make accessible to the government on the project website. |
| 0.1.5.1.2 | Produce an updated AAOCS Data Quality Plan in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.1.5.2 | Monitor the NIAE environment to proactively identify data accuracy and quality related problems. |
| 0.1.5.3 | Analyze problem to determine root cause. |
| 0.1.5.4 | Develop Corrective Action. |
| 0.1.5.5 | Integrate and Test Corrective Action |
| 0.1.5.6 | Assess Risk of Improved System. |
| 0.1.5.7 | Implement and Field. |
| 0.1.5.8 | Acquisition Information Reporting System (AIR) Data Quality Report |
| 0.1.5.8.1 | Establish a Data Quality Report within the AIR that meets the requirements of the annual guidance issued by the OMB Office of Federal Procurement Policy (OFPP) on Acquisition Data Quality (data verification and validation).This report shall have the capability to provide a statistically valid sample for use in evaluating and testing the accuracy and quality of the database contents of AIR by means of statistically valid analysis, which will withstand the scrutiny of professional statisticians external to the Government workforce. |
| 0.1.5.8.2 | Develop the functional requirements for the Data Quality Report in accordance with annual OFPP guidance that will: (1) be web-accessible to all DOC/NOAA agencies that enter acquisition data into FPDS, (2) set the criteria for the statistical sample and the level of statistical confidence, (3) generate the statistical sample to be reviewed for accuracy by each federal agency that transmits acquisition data to FPDS. |
| **0.1.6** | **Customer Relationship Management** |
| 0.1.6.1 | Provide agency liaison support (functional leadership between agency functional and technical) to government agencies (as designated by Government PMO) for coordination and resolution of agency level issues throughout the life of the contract. There are 7 primary (NOAA) LoBs and numerous other DOC entities, each with different multiple integration points, most systems within the NIAE portfolio, and other government-wide systems. |
| 0.1.6.2 | Provide NOAALink liaison support to government oversight agencies (e.g. OMB, GAO, SBA, DOC) in response to time sensitive inquiries. |
| 0.1.6.3 | Engage proactively with the LoBs to perform "triage" and anticipation of related issues the |

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| | LoBs may be facing. |
| 0.1.6.4 | Establish process that shall be documented in the AAOCS Project Management Plan for how customer relationship will be performed and how the Government PMO will be kept informed. |
| 0.1.6.5 | Provide monthly status reporting for customer relationship management that details current activities by date and people involved, accomplishments, upcoming activities, risks and issues, and summary comments that need to be communicated to the Government PMO. |
| **Systems Engineering (SE)** | |
| **0.2.1** | **SE Planning** |
| 0.2.1.1 | Define and document Systems Engineering Plan(s) (SEP) that describe the overall technical approach, including systems engineering processes; resources; and key technical tasks, activities, and events along with their metrics and success criteria. Include integration or linkage with other program management control efforts, such as integrated master plans, integrated master schedules, technical performance measures, risk management, and earned value management. This document shall be submitted at the time of the technical proposal. An updated document shall be delivered in a planned timeframe with the first development delivery. |
| 0.2.1.2 | Maintain the Systems Engineering Plan Document and make accessible to the government on the project management portal. |
| 0.2.1.3 | Produce an updated Systems Engineering Plan Document in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.2.1.4 | Employ open source /open standards methodology e.g., Modular Open Systems Approach |
| **0.2.2** | **Federated Business Enterprise Architecture** |
| 0.2.2.1 | Prepare and deliver an NIAE Federated Business Enterprise Architecture Document. The document shall include diagrams and text that describe the NIAE Federated Business Enterprise Architecture components at a high level and detailed level, the specific modules and/or tools, and the integration of the components including external interfaces. Initial document with Technical Proposal, Revision 1 - 120 days after contract award, Revision 2 – 240 days after award, Final Version - 340 days after award. |
| 0.2.2.2 | Assign Certified Enterprise Architect to oversee project activity and apply best practices |
| 0.2.2.3 | Assign federal acquisition and financial management subject matter experts to support the design and implementation efforts for business process reengineeringces |
| 0.2.2.4 | Maintain the NIAE Federated Business Enterprise Architecture Document and make accessible to the government on the project management portal. |
| 0.2.2.5 | Produce an updated NIAE Federated Business Enterprise Architecture Document in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.2.2.6 | Establish, implement, and maintain the target NIAE Federated Business Enterprise Architecture. |
| 0.2.2.7 | Define and document the CBS/CBE Migration Plan to migrate acquisition/procurement functions/capabilities into the target NIAE Federated Business Enterprise Architecture. Deliver High-level Approach with Technical Proposal, Revision 1 - 120 days after contract award, Revision 2 – 240 days after award, Final Version - 340 days after award. |
| 0.2.2.8 | Migrate and Manage CBS/CBE interface in the target NIAE Federated Business Enterprise |

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| | Architecture |
| 0.2.2.9 | The provider of information technology shall certify applications are fully functional and operate correctly as intended on systems using the Federal Desktop Core Configuration (FDCC). This includes IP based value-added Network Explorer 7 configured to operate on windows XP and Vista (in Protected Mode on Vista). For the Windows XP settings, ss:http//csrc.nist.gove/itsec/guidance_WinXP.html, and for the Windows Vista settings, see: http://csrc.nist.gov/itsec/guidance_vista.html. |
| 0.2.2.10 | The standard installation, operation, maintenance, update, and/or patching of software shall not alter the configuration settings from the approved FDCC configuration. The information technology should also use the Windows Installer Service for installation to the default "program files" directory and should be able to silently install and uninstall. |
| 0.2.2.11 | Applications designed for normal end users shall run in the standard user context without elevated system administration privileges. |
| **0.2.3** | **Hosting Service – Value Added Network** |
| 0.2.3.1 | Provide the IT infrastructure (facilities and infrastructure software) that serve as the foundation for running business software applications and the services to maintain that infrastructure |
| 0.2.3.1.1 | Provide the IT infrastructure, software and services for running and managing access to business applications, in this case, the seven applications and the feeder systems that provide data to the acquisition and financial management software |
| 0.2.3.1.2 | Provide IT infrastructure services to assist NOAA through the transition of the current acquisition and financial management operations to the shared services environment |
| 0.2.3.1.3 | Provide Network Architecture and Managed Network Services (MNS) as an end-to-end managed IP network solution and include service enabling devices (SEDs) located at NOAA customer facilities. |
| 0.2.3.1.4 | Provide a private IP MPLS network that will be managed by the offeror. Optional, site-to-site VPN may be required for designated small offices, and alternate backup network access capabilities for selected routine sites (approximately 2000nodes). The proposed Value Added Network (VAN) architecture must support both IPv6 and IPv4 traffic. |
| 0.2.3.1.5 | Provide and manage a Network Operations Center (NOC) to monitor and report the availability, reliability and performance of the NOAALink VAN and related customer premised equipment. The contractor shall initiate actions to address all incidents including deficiencies affecting connectivity or performance of the VAN. The contractor shall notify the NOAALink Service Desk of the incident and provide updated information on remediation activities until the item is closed. |
| 0.2.3.1.6 | Provide a common and consistent approach to network monitoring and management based on IT Infrastructure Library Best Practice processes for service delivery and support through an integrated contractor service desk |
| 0.2.3.1.7 | Provide VAN Access specify guaranteed bandwidth to NOAALink customer LoB sites. Selection of appropriate bandwidth will be based upon the predefined needs of the specific LoB at that location. Aggregate these requirements for multi-tenant sites for total bandwidth. Typical selection will be based on designated needs for office size, types of data, large or small file transfers, HTTP web access, application interfaces, etc. Provide upgrade scenarios to support increased bandwidth demand for future requirements such support for Voice over IP, and Video Conferencing |
| 0.2.3.1.8 | Provide Managed Edge Router Services, supply, install, configure, monitor, and manage the edge WAN devices in accordance to guaranteed performance levels and service level agreements |
| 0.2.3.1.9 | Provide Managed Extended Demarcation service enabling devices for the VAN. Supply, install, and manage all required SEDs, including cabling to the customer LoB demarcation |

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| | (Agency LAN device) to provide access to the Private IP backbone. Establish The MNS Key Performance Indicators, that apply to the extended demarcation |
| 0.2.3.1.10 | Provide Managed Out-of-Band Management supply, install, configure, monitor,and manage the out-of-band service (Modem and POTS). Provide diagnostic capabilities to the router and associated equipment in the event of circuit outages. This feature may be optional for sites designated as Small Offices configurations. Supply, install, configure, monitor,and manage the VAN in accordance to specified minimum performance thresholds for the network and the network operations center |
| 0.2.3.1.11 | Provide Managed Security Services Each LoB has assessed their risk tolerance and tailored their security systems accordingly. Under the VAN environment, all involved LoB will require a consistent approach and delivery of security systems |
| 0.2.3.1.12 | Provide Trusted Internet Connections (TIC) - Security Services to meet the OMB Trusted Internet Connections mandate. The acquisition of IPS circuits will be defined at a later time once the planning and design phases of the TIC initiatives are finalized |
| 0.2.3.1.13 | Provide Security Architecture and operate an integrated security operations center solution. Provide opportunities for leveraging the offeror's technology assets, experience, and creative leadership to:a. develop a dynamic infrastructure capable of providing NOAALink a consistent approach to securing LoB's infrastructure systems; b. provide a managed service that will offer better value by identifying methods to improve functions such as operations, management, reporting and alerting; c. develop uniform network security that includes privacy protections that are commensurate with the federal and departmental guidelines; and d. ensure survivability, diversity, and redundancy are critical elements of the network as well as the Security Operations Centers (SOC). The offeror's security architecture must address new/additional security requirements specific to introducing IPv6 traffic into the VAN infrastructure |
| 0.2.3.1.14 | provide and manage a Security Operations Center (SOC) to monitor, report, and respond to security threats in real time for all internet points of presence including Internet gateways, connections to other departments, state sites, or outside contractors as specified by the customer. NOAA is seeking a common and consistent approach to security monitoring and management based on IT Infrastructure Library Best Practice processes for service delivery and support through an integrated ITIL v3 based offeror service desk. In doing so, NOAALink/NOAA will transfer certain security related operational responsibilities to the offeror and leverage that offeror's full range of service delivery platforms for managing "at a minimum" the following functions: a. provisioning, managing, and maintaining all NOAALink customer premised security equipment; b. day-to-day network operations support and monitoring accomplished at the offeror's Network Operations Center (NOC), using its network management and monitoring systems; c. management and monitoring of in-place firewalls, Intrusion Detection and Prevention Systems (IDPS); d. support for existing in-service platforms and systems; e. integration with the offeror Service Desk for NOC and SOC related activities; and f. engineering support and coordination for the provisioning of services |
| **0.2.4** | **System Configuration and Interface Development** |
| 0.2.4.1 | |
| **0.2.5** | **Knowledge – Data Management** |
| **0.2.6** | **Lean6** |
| **0.2.7** | **ITIL** |
| **0.2.8** | **Requirements Packaging and Management** |
| 0.2.8.1 | Manage the requirements process. |
| 0.2.8.2 | Collect inputs from relevant stakeholders and translate the inputs into technical requirements. |

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| 0.2.8.3 | Establish structure to organize requirements into "change packages" that can be competed to identify Software Developer(s) for implementation. |
| 0.2.8.4 | Provide sample package of requirements document(s), as an example to the government, for how the offeror will provide a package for issuance via separate solicitation to identify Software Developer(s) for implementation. Deliver: Initial document with Technical Proposal. |
| 0.2.8.5 | Establish and maintain a requirements baseline for the system that has traceability to systems development life cycle (SDLC) documentation and is accessible via the project management portal. Deliver Requirements Traceability Matrix that is updated with each new release. |
| 0.2.8.6 | Document standard operating procedures for requirements management processes in the AAOCS Configuration Management Plan. |
| 0.2.8.7 | Update all documentation that is affected within 30 days when a change request is implemented in accordance with the NIAE CM process requirement. |
| 0.2.8.8 | Submit functional and system requirements documents and data dictionaries in MS Word or MS Excel format. |
| 0.2.8.9 | Provide version number of the document, date of issue, and revision page to changes made to documentations. |
| **0.2.9** | **Federal Acquisition System Requirements (FASR)** |
| 0.2.9.1 | Leverage the Federal Acquisition System Requirements (FASR) as guidance for establishing standard interfaces. |
| 0.2.9.1.1 | Ensure compliance to Federal Acquisition Requirements (FASR) via the recertification of interfaces. This includes, but is not limited to, contract writing systems (CWS) and financial system interfaces. |
| 0.2.9.2 | Leverage the Federal Acquisition System Requirements (FASR) as design guidance for migrating to integrated services for NIAE. |
| 0.2.9.3 | Maintain the Federal Acquisition System Requirements (FASR) requirements documentation. |
| **0.2.10** | **Configuration Management (CM)** |
| 0.2.10.1 | CM Planning and Management |
| 0.2.10.1.1 | Define and document the AAOCS Configuration Management Plan and deliver: Initial document with Technical Proposal, Revised Version - 30 days after award, Final Version - 60 days after award. |
| 0.2.10.1.1.1 | Establish processes that are responsive to the NIAE Configuration Management process. |
| 0.2.10.1.1.2 | Document standard operating procedures for configuration management processes. As a minimum standard, this must address change control (Service Releases, Release/Versions, emergency fixes), technical environment(s) maintenance), configuration identification, asset management, performance reporting, and configuration status and audit inquiries. Demonstrate how these procedures are linked to the Configuration Management Plan. |
| 0.2.10.1.1.3 | Document the standard protocol to be followed for coordinating change impacts to the agency's contract writing systems (that includes responsibilities of all parties). |
| 0.2.10.1.1.4 | Document the standard protocol to be followed for coordinating change within the NIAE hosting environment (that includes responsibilities of all parties). |
| 0.2.10.1.1.5 | Maintain the AAOCS Configuration Management |

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| Plan and make accessible to the government on the project website. |
| 0.2.10.1.1.6 Produce an updated AAOCS Configuration Management Plan in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.2.10.1.2 Maintain synchronization of required environments by migrating changes to address development, testing, training, and production environments. |
| 0.2.10.1.3 Maintain backward compatibility once a version release is implemented for up to 18 months. |
| 0.2.10.1.4 Establish and monitor software and documentation migration processes and procedures to ensure correct versioning of configuration items are maintained in libraries. These libraries must maintain a Production Baseline, and also provide documented history by Release/Version, Service Release, or Emergency Fix to the Government PMO. |
| 0.2.10.1.5 Provide access and maintain all Software Release/Service Release/Emergency Fix Delivery Packages (including delivery notes describing the changes appropriate for **technical community**) on the project site, as well as the Software Library once in production. Provide at least a 90-day lead time for release notes delivery (120 days for release/version) before the release is implemented. |
| 0.2.10.1.6 Provide access and maintain all Software Release/Service Release/Emergency Fix Delivery Packages (including delivery notes describing the changes appropriate for **user community**) on the application's home page, as well as the Software Library once in production. Provide at least 90-day lead time for release notes delivery (120 days for release/version) before the release is implemented. |
| 0.2.10.1.7 Provide NIAE documentation, at a minimum that includes the system documentation currently familiar to NIAE, within 30 days of the release date. |
| 0.2.10.2 Configuration Identification |
| 0.2.10.2.1 Identify and place all system documentation and project artifacts under configuration control. |
| 0.2.10.2.2 Serve as the keeper of NIAE applications' code and licenses. |
| 0.2.10.2.3 Establish naming conventions that help identify the type of configuration item. |
| 0.2.10.2.4 Establish master listing of all configuration items accessible via the project management portal. |
| 0.2.10.2.5 Document in the Configuration Management Plan how configuration identification will be accomplished. |
| 0.2.10.2.6 Maintain a production baseline of the software, documentation, specifications, project management data, production environment content, testing data, and Systems Development Life Cycle (SDLC) documentation, and other project artifacts with each Service Release and Release/Version. |
| 0.2.10.3 Change Control |
| 0.2.10.3.1 Implement processes and procedures for multiple open source developments. |
| 0.2.10.3.2 Identify proposed system changes as system problem reports (maintenance or corrective activity) or change requests (enhancements). The AAOCS shall identify in the Configuration Management Plan how each of these will be implemented and the timeframes. |
| 0.2.10.3.3 Coordinate activity to accomplish implementing and supporting |

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| Software Service Releases, Emergency Fixes and critical patches, and Release/Versions. |
| 0.2.10.3.4 Implement Software Service Releases, and Emergency Fixes and critical patches in accordance with established procedures. Identify proposed intervals for software Service Releases. |
| 0.2.10.3.5 Provide definition of what constitutes a version, break-fix, emergency fix, patch or change. |
| 0.2.10.3.6 Coordinate and manage hosting change impact due to changes (e.g. patches, fixes) to the operating system and other hosting components. |
| 0.2.10.3.7 Provide to NIAE Contract Writing System (NCWS) owners the XML specifications for integration and the process and standards for recertification of CWS system. For major release/versions, XML specification must be provided at least 120 days prior to the implementation. |
| 0.2.10.3.8 Support and participate in, (as a non-voting member) Change Control Board (CCB) and/or CCB Subgroup meetings and coordination functions; support and participate as technical subject matter experts. |
| 0.2.10.3.9 Coordinate communication and notify the user community of any production service disruptions or impacts in accordance with standard operating procedures. |
| 0.2.10.3.10 Provide Change Control performance reporting that allows users to filter and sort data elements to include summary, detail level, trend analysis and statistical reporting charts. As a minimum standard, the following reports shall be provided: |
| 0.2.10.3.10.1 Provide Overall and LoB Change Request (CR) Requests Pending - Measure and report monthly total Change Requests (CR) Pending for the last six months |
| 0.2.10.3.10.2 Provide Overall and LoB Change Request (CR) Age Reporting - Measure and report monthly average Change Request (CR) Age for the last six months |
| 0.2.10.3.10.3 Provide Overall and Agency Outstanding Change Requests (CR) by Type - Measure and report monthly total outstanding Change Requests (CR) by Type (e.g. Regulation, Data Accuracy, Reporting, User Interface, and System Integration) including Cumulative %. |
| 0.2.10.3.10.4 Provide Overall and Agency Outstanding Change Requests (CR) by Priority and Impact - Measure and report monthly total outstanding Change Request (CR) by Priority and Impact (e.g. Regulation, Data Accuracy, Reporting, User Interface, and System Integration). |
| 0.2.10.3.10.5 Provide Overall and Agency System Problem Report (SPR) Requests Pending - Measure and report monthly total System Problem Report (SPR) Pending for the last six months |
| 0.2.10.3.10.6 Provide Overall and Agency System Problem Report (SPR) Age Reporting - Measure and report monthly average System Problem Report (SPR) Age for the last six months |
| 0.2.10.3.10.7 Provide Overall and Agency System Problem Reports (SPR) by Issue Type - Measure and report monthly total System Problem Reports (SPR) by Issue Type (e.g. Validation Rule issue, Account or User Permission issue, Performance issue, Report issue, Integration issue w/ CWS/BI views, Search issue, Hierarchy issue) including Cumulative %. |
| 0.2.10.3.10.8 Provide Overall and Agency System Problem Reports (SPR) by Priority and Impact - Measure and report monthly total System Problem |

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| Reports (SPR) by Priority and Impact (e.g. Validation Rule issue, Account or User Permission issue, Performance issue, Report issue, Integration issue w/ CWS/BI views, Search issue, and Hierarchy issue). |
| 0.2.10.3.11 Changes to the technical environment which may negatively impact data submission and/or reporting shall not be implemented between the months of July and October to avoid the end of the fiscal year. |
| 0.2.10.4 Configuration Status Accounting |
| 0.2.10.4.1 Manage the capture and maintenance of configuration information necessary to account for the NIAE configuration throughout the life cycle. |
| 0.2.10.5 Configuration Verification and Audit |
| 0.2.10.5.1 Establish that the performance and functional requirements defined have been achieved by the design and that the design has been accurately documented. |
| **0.2.11 Quality Control and Testing** |
| 0.2.11.1 Quality Planning and Management |
| 0.2.11.1.1 Define and document the AAOCS Quality Control Plan. The plan shall meet the requirements of FAR Part 46.105. Deliver initial document with Technical Proposal, a Revised Version - 30 days after award, and a Final Version - 60 days after award. |
| 0.2.11.1.1.1 Ensure the quality control plan addresses quality throughout all phases of the project, including: Planning, Development, Testing, Implementation, and Post-implementation Support. |
| 0.2.11.1.1.2 Develop and implement a quality control process that verifies the accuracy, completeness, and correctness of data submission and reporting. |
| 0.2.11.1.1.3 Ensure the quality control plan outlines how quality is consistently measured throughout the life of the contract. |
| 0.2.11.1.1.4 Maintain the AAOCS Quality Control Plan and make accessible to the government on the project website. |
| 0.2.11.1.1.5 Produce an updated AAOCS Quality Control Plan in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum update annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.2.11.1.2 Establish monthly performance reporting for quality control services. |
| 0.2.11.1.3 Perform Integrated Baseline Reviews (IBR) as a minimum standard at the end of planning, during development, at the end of testing, prior to receiving approval for production cutover, and finally as a post-implementation checkpoint. |
| 0.2.11.1.4 Establish quality gates with entrance and exit criteria between major phases of the project: planning, development, testing, and cutover/implementation phases. |
| 0.2.11.1.5 Align the Performance Measurement Baseline (PMB) with the quality gates, meaning be specific on what is delivered when. |
| 0.2.11.2 Testing and Test Environment |
| 0.2.11.2.1 Conduct in accordance with the testing methodology individual unit/module testing, subsystem testing, subsystem integration testing (e.g. machine-to-machine), and overall system testing throughout the development process. All |

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| developmental testing performed shall be documented. |
| 0.2.11.2.1.1 The AAOCS shall test all applications and/or upgrades on the development system prior to installation on the operational system. |
| 0.2.11.2.1.2 The Software Developer shall correct errors or deficiencies in applications, and related documentation. |
| 0.2.11.2.1.3 For all software development and maintenance, the Software Developer shall perform tests to (1) isolate suspected and confirmed malfunctions and (2) confirm software correction. |
| 0.2.11.2.1.4 The AAOCS shall provide a written description of any error or deficiency that is identified. |
| 0.2.11.2.2 Define and document test plans for Service Release and Release/Versions. |
| 0.2.11.2.2.1 Maintain the Service Release and Release/Version test plans and make accessible to the government on the project website. |
| 0.2.11.2.3 Establish and maintain dedicated test environments throughout the life of the contract that is refreshed with production data on a scheduled basis and is remotely accessible. |
| 0.2.11.2.4 Define, document, and maintain Test Procedures for all test processes that include but are not limited to: New functionality and regression test scenario/test case tracking, requirements to test scenario/test case tracking, test scenario/test case success/fail tracking, test scripts, test data, expected results, defect tracking, issue tracking, data-related refresh processes, software to environment migration, and hosting coordination. |
| 0.2.11.2.5 Establish test procedures that reinforce efficiency and effectiveness and accomplish quality test results within planned timeframes for service releases and release/versions. |
| 0.2.11.2.6 Review Test Procedures with the Government PMO for approval prior to the testing phase. |
| 0.2.11.2.7 Document test results in a Test Report for each test execution and deliver to the Government PMO. |
| 0.2.11.2.8 Ensure that the development contractor performs all tests (Unit, String, Integration, Stress). Test plans, test scripts, test data, expected results, and test results shall be written. |
| 0.2.11.2.9 Measure compliance to the requirements throughout all phases of the life cycle and report any recommendations, non-compliance, and omissions that may occur. |
| 0.2.11.2.10 Perform Government Acceptance Testing with government participation, software quality inspections and audits on behalf of the Government PMO, produce problem reports, and verify problem resolution prior to implementation into production. |
| 0.2.11.2.11 Provide a means to maintain and provide periodic reports with a defect tracking database for all identified errors, defects, or problems found. The defect tracking database shall provide a means to develop “on demand” or as-requested reports to be delivered to the Government for review. |
| 0.2.11.2.12 Ensure software release/version and service release installations adhere to appropriate testing guidelines in accordance with the System Development Life Cycle (SDLC). |
| 0.2.11.3 Independent Verification and Validation (IV&V) Support |

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| 0.2.11.3.1 Ensure subject matter experts, accessibility to application, and required project artifacts are available for support of government Independent Verification and Validation (IV&V) activities. |
| **0.2.12 Define and Manage Interfaces** |
| 0.2.12.1 Ensure interface definition and compliance among the elements that compose the system, as well as with other systems with which the system or system elements must interoperate. |
| 0.2.12.2 Provide maximum flexibility to the Government to accommodate interoperability with other systems. For example, adding and changing data elements, using an external business information exchange, or adding communications capability. |
| 0.2.12.3 Ensure that Interface management control measures that all internal and external interface requirement changes are properly documented in accordance with the configuration management plan and communicated to all affected configuration items. |
| 0.2.12.4 Provide a machine-to-machine information exchange capability to interoperate with government agency contract writing and with other e-business systems IAW with established standards contained in the Federal Acquisition System Requirements (FASR). |
| 0.2.12.5 Provide a standard Interface Specification for use by LoBs. The purpose of the Interface Specifications is to provide information (technical information, standards, and specifications) that LoBs and COTS suppliers will use to adapt their procurement systems to interoperate with the NIAE/CBS/CBE machine-to-machine. Deliver initial interface specification documents at planned date(s) during the development phase and a Final Version prior to the end of the Testing Phase. |
| 0.2.12.6 Develop certification processes and standards requirements for each interface. |
| 0.2.12.7 Recertify systems and document recertification when there is a version change or a contract writing systems upgrade with a release/version change. |
| 0.2.12.8 Provide all different types of files and data packages to other users of NIAE/CBS/CBE data. This includes other project leaders within the NIAE (such as CFO) as well as other federal users such as Dept of Commerce for their annual reports. This also includes providing data feeds to other federal sources. |
| 0.2.12.9 Provide all different types of data interfaces to allow federated searches "down", "across", and "up". Down into a contract writing system or a financial application or a grant application if necessary; "across" such as to FedBizOpps.gov data; and "up" to an IRS application or USASpending.gov. |
| **0.2.13 Service Desk (Tier 2 and 3)** |
| **"Service Desk",** as defined in this task, is described as Tier 2 and 3 for informational purposes and commonality of understanding. Service Desk Tier 1 support will be provided by a vendor independent of the AAOCS. All Service Desk calls will initially go to the Tier 1 service desk. If the problem can not be resolved by Tier 1 because more expertise is required for resolution, then the problem, if determined appropriate for the AAOCS, will be routed to the AAOCS Tier 2/3. The Government's vision of the AAOCS' capability to handle these issues is more addressed as 'maintenance' of the application and/or agents handling requests that need to be addressed by specialists (e.g. Software problems; questions requiring system design and business process insight). It is envisioned that certain calls elevated to the AAOCS will be categorized as System Problem Reports (SPR) or Change Requests (CR). The AAOCS will assess and package documentation/requirements for SPRs for delivery to a Software Developer (independent of the AOCS) for performance of the work. CRs will be handled by the AOCS. |
| 0.2.13.1 SPR and CR Process and Procedures |
| 0.2.13.1.1 SPR and CR and Data Management Services Standard Operating Procedures (SOP), that include service level agreement and performance measures for Tiers 2 and 3 (SPRs and CRs) (for a "one" document reference). |

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| 0.2.13.1.2 Establish and document procedures and coordination for transferring NIAE Service Desk Tier 1 support (performed by a third party) to the AAOCS' Tier 2 or 3 support. |
| 0.2.13.1.3 Provide 24 hour extended service desk support services at the end of each fiscal year. The 24 hour service is to start at the end of the normal business day on September 29th and be performed through the 30th, stopping at the start of the next normal day's coverage (Oct 1). If September 29th and/or 30th fall on a weekend, the extended support begins COB Friday and runs until normal service desk support on Monday AM. |
| 0.2.13.1.4 Provide in the appropriate priority emphasis to address help desk tickets that are preventing the completion of entering contract action reports (CARs) successfully. |
| 0.2.13.2 User Resolution |
| 0.2.13.2.1 Document in the SOP the procedure by to be followed for closing service desk tickets with the Tier 1 contractor including any ticket where a resolution could not be determined. |
| 0.2.13.2.2 Establish and document closure procedures with the Service Desk Tier 1 on tickets that originated with the Tier 1 support. |
| 0.2.13.2.3 All unresolved issues that reach the age of 5 business days and every 5 business days after that (if the issue is still outstanding) the help desk ticket will be updated and the status on the issue sent to the person who reported the issue. |
| 0.2.13.2.4 Maintain standard operating procedures for all SPR and CR resolution and Data Management processes and make accessible to the government on the project management portal. |
| 0.2.13.2.5 Produce a revised SPR and CR resolution and Data Management SOP in accordance with Release/Version and Service Release impacts (if applicable), but at a minimum revise annually (changes identified in document) and submit to the Government PMO for approval. |
| 0.2.13.2.6 Review processes and identify continuous improvement recommendations for customer service and satisfaction using Lean6. |
| 0.2.13.2.7 Use an automated service desk tracking system to document, review, monitor and report SPR and CR resolution and data management tickets/issues. All tickets shall have at a minimum, the following information: Ticket #, date/time received/opened, submitter's name, agency/department name, complete phone number (including area code), problem description, location, severity impact to the user, email address, problem category/area, resolution detail including people involved/dates and times, and close date. |
| 0.2.13.2.8 Provide the ability for the Government PMO to receive on demand all issues data for a specified date range in a file format suitable for internal analysis and reporting via Microsoft Office products. |
| 0.2.13.2.9 Map all Service Desk tickets to System Problem Reports (SPR) or Change Requests (CRs) when applicable. |
| 0.2.13.2.10 Establish the ability to collect service desk service feedback (positive and negative) from the user community about the help desk support. The unedited feedback shall be made available to the Government PMO via the project management portal. |
| 0.2.13.3 Service Desk Performance Reporting |
| 0.2.13.3.1 Provide service desk reporting capability allowing users to filter and sort data elements (i.e. listed in 1.3.8.2.9 above) to include summary, detail level, |

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| | trend analysis and statistical reporting charts. As a minimum standard, the following reports shall be provided: |
| 0.2.13.3.2 | Provide Overall and Agency Issue Volume by Severity Reporting - Measure and report monthly total issues by severity for all months; chart graphically trend analysis for last six months. |
| 0.2.13.3.3 | Provide Overall and Agency Issue Volume by Issue Type Reporting - Measure and report monthly total issues by issue type for all months; chart graphically trend analysis for last six months. |
| 0.2.13.3.4 | Provide Overall and Agency Issue Status by Issue Type Reporting - Measure and report monthly total issues by issue status and issue type for all months; chart graphically trend analysis for last six months. |
| 0.2.13.3.5 | Provide Overall and Agency Call Volume and Email Reporting - Measure and report monthly total call and email volume for all months; chart graphically trend analysis for last six months. |
| 0.2.13.3.6 | Provide New User Statistics Reporting - Measure and report monthly total count of new users and logins; chart graphically trend analysis for last six months. |
| 0.2.13.3.7 | Provide Overall and Agency Help Desk Ticket Age Reporting - Measure and report monthly average Service Desk Ticket Age for the last six months |
| 0.2.13.3.8 | Provide Overall and Agency Unresolved / Open Issue Reporting - Measure and report monthly number of issues created and the number of unresolved issues; chart graphically trend analysis for last twelve months. |
| 0.2.13.3.9 | Provide Overall and Agency Tier Response Reporting - Measure and report monthly average response times for Tier 2, and 3; chart graphically trend analysis for last six months. |
| 0.2.13.3.10 | Provide Overall and Agency Data Management Requests by Issue Type Reporting - Measure and report monthly total Data Management Fixes by Issue Type, including Cumulative Percent. |
| 0.2.13.3.11 | Provide Overall and Agency Data Management Requests by Priority and Impact Reporting - Measure and report monthly total Data Management Fixes by Priority and Impact. |
| **0.2.14** | **Deployment** |
| 0.2.14.1 | Receive software change package from Software Developer and implement into test/acceptance and production. |
| 0.2.14.2 | Establish and document plan(s) for deployment to include task coordination and schedule, roles and responsibilities, and criteria for measuring success of the deployment. |
| 0.2.14.3 | Analyze the aggregation of inputs available at this stage (e.g., test results, maintenance reports, exit criteria from System Development and Demonstration, Capability Production Document, Systems Engineering Plan, Test and Evaluation Master Plan, as well as associated support and maintenance concepts) to identify any known deficiencies. |
| 0.2.14.4 | Conduct an Operational Test Readiness Review (OTRR) to ensure, that upon government approval, the “production configuration” system can proceed into Initial Operational Test and Evaluation with a high probability of successfully completing the operational testing. |
| 0.2.14.5 | Perform Physical Configuration Audit to verify that the related design documentation matches the item as specified, and to define the starting point for controlling the detail design of the item and establishing a baseline. |
| **Security** | |

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| **0.3.1** | **Security Controls** |
| 0.3.1.1 | Implement and maintain all security controls on this system/application IAW NIST SP 800-53 R2 for a moderate impact system (specific settings/requirements are further defined in CIO IT Security 06-30 (Managing Enterprise Risk) Appendix B and GSA IT Security Policy 2100.1. These security controls shall be documented in a security plan IAW NIST SP 800-18 R2. All systems/applications shall be securely configured IAW GSA IT Security Policy 2100.1 and associated hardening guides. Implement and maintain all security controls on this system/application IAW the Financial Management Line of Business (FMLoB)/Federal Shared Service Provider (SSP) Due Diligence Checklist Version 4.0 |
| **0.3.2** | **Contingency Planning** |
| 0.3.2.1 | Establish and maintain contingency plan (IAW NIST Sp 800-34) that is tested and updated annually IAW AAOCS/CIO IT Security Contingency Plan testing. |
| 0.3.2.2 | Securely configure and maintain all NIAE systems/applications IAW AAOCS/CIO IT Security Policy and associated hardening guides. |
| **0.3.3** | **Certification and Accreditations** |
| 0.3.3.1 | Allow AAOCS employees (or CIO designated third party contractors) to conduct certification and accreditation (C&A) activities and quarterly continuous monitoring activities to include control reviews IAW NIST 800-53 and AAOCS/CIO IT Security Plan including vulnerability scanning, web/portal application scanning, application scanning, and database scanning of applicable systems that support the processing, transportation, storage, or security of AAOCS/NIAE information. This includes the general support system infrastructure. The contractor is responsible for mitigating all security risks the government or CIO designated third party contractors find during these C&A and continuous monitoring activities. All high risk vulnerabilities must be mitigated within 30 days and all moderate risk vulnerabilities must be mitigated within 90 days. Risk rating of vulnerabilities will be determined by the government. |
| 0.3.3.2 | Define and document in an IT Security Program Management Implementation Plan the security responsibilities between the Contractor and the Government, the milestones, and the measures of progress in accordance with the guidance document: AAOCS IT Security Procedural Guide: AAOCS IT Security Program Management Implementation Plan to be delivered at a planned date prior to AAOCS Operations and produce annually by Fiscal Year IAW with security policies. |
| 0.3.3.3 | Obtain valid certification and accreditation (signed off by the Federal government) for system/application before going into operation and processing DOC/NOAA information. The failure to obtain and maintain a valid certification and accreditation will be grounds for termination of the contract. The system must have a new C&A conducted (and signed off on by the Federal government) every 3 years or when the system/application has undergone significant security changes. All NIST 800-53 controls must be tested/assessed no longer than every 3 years. |
| 0.3.3.4 | Detailed information of the C&A guidelines including server hardening guidelines are available from the Contracting Officer upon request after signing a non-disclosure statement. The contractor shall be required to develop SDLC documentation to support the smooth operations of the system. This documentation will be used to support the C&A process. |
| 0.3.3.5 | NIST 800-53 technical controls will be scanned quarterly and any weaknesses or vulnerabilities discovered during the scans must be mitigated according to 1.4.3.1. |
| **0.3.4** | **Background Checks** |
| 0.3.4.1 | Perform background checks and other forms of screening to provide personnel qualified to obtain appropriate clearances. At a minimum these checks shall be consistent with HPSD 12 requirements stated in NOAA's "Standard Operating Procedure for NOAA HSPD-12 Personnel Security Process" Risk Level "LOW." NOAA's guidance states: Contract |

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| | employees must have a National Agency Check with written Inquiries (NACI). The following preliminary checks are required for EOD Determination: Favorable Review of Forms SF85P, FD258 and the "Contractor Information Worksheet, and Favorable FBI Fingerprint, CIS and Law Enforcement Checks. Subject to the requirements of NOAA's "Standard Operating Procedure for NOAA HSPD-12 Personnel Security Process", A Preliminary Employment Suitability decision letter will allow the Contract employees to commence work before the required background investigation is completed. The preliminary suitability letter does not substitute for the required background investigation contractor requirements. The suitability decision will still be determined upon receipt of the OPM background investigation case. |
| **0.3.5** | **Configuration Management Compliance** |
| 0.3.5.1 | Ensure that AAOCS Configuration Management plans, policies and procedures for configuration management of the system(s) conform to all the provisions of Configuration Management, AAOCS/CIO IT Security Plan, including:<br>• Identification of all system components comprising the system<br>• Change control and documentation of system versions, components, revisions, and upgrades<br>• Auditing to ensure that functional requirements are met and the system is up to proper operating performance<br>• Classification of changes as maintenance or emergency<br>• Identify personnel to make changes<br>• Schedule changes and upgrades to new versions<br>• Analyze and test how changes will affect security<br>• Maintain data and hardware<br>• Participate in a Configuration Control Board<br>• Prepare Engineering Change Proposals for pending changes |
| **0.3.6** | **Security Administration** |
| 0.3.6.1 | Define and document processes and procedures for performing security administration in the Security Administration SOP. Deliver Security Administration SOP prior to AAOCS operation. |
| 0.3.6.2 | Administrate granting government approved user access to required security privileges (in accordance with established GSA security guidance and procedures) for all applications in the NIAE Federated Business Enterprise Architecture.. |
| 0.3.6.3 | Maintain historical records of security administration. |
| **Transition** | |
| **0.4.1** | **Phase-in Transition Plan** |
| 0.4.1.1 | Provide a transition plan that accommodates the transition of seven (7) LoBs and numerous other DOC entities, each with different multiple integration points, most systems within the NIAE portfolio, and other government-wide systems throughout the life of the contract. Deliver initial plan with Technical Proposal, Revised version 60 days after contract award, and Final version 90 days after contract award. |
| 0.4.1.2 | Define and document as part of the AAOCS Transition Plan, the scope of the plan, approach, assumptions and constraints, schedule, resource involvement, critical success criteria, anticipated risks and issues, and performance metrics. |
| 0.4.1.3 | Address migrating away from existing CBS/CBE from its current operation to the AAOCS operation. |
| 0.4.1.4 | The plan shall document how status will be tracked for achieving all transition requirements. |
| 0.4.1.5 | Establish monthly performance reporting via metrics for the transition. |

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| 0.4.1.6 | Address inventory of all outstanding maintenance requests/enhancements/issues, personnel staff-up to full staff, hand-off with the incumbent contractor, and service level agreements during phase-in. |
| 0.4.1.7 | Designate a transition manager(s) to work with the Government PMO, departments and agencies. |
| 0.4.1.8 | Maintain the Phase-in AAOCS Transition Plan and make accessible to the government on the project website. |
| **0.4.2** | **Phase-out Transition Plan** |
| 0.4.2.1 | Provide a Phase-out transition plan to be deployed at the end of the period of performance on this contract. The plan shall include as a minimum addressing all the issues stated in the Phase-in to include standard reports and associated documentation, outstanding maintenance requests/enhancements/issues, personnel ramp down, hand-off with new service provider(s), and service level agreements. |
| 0.4.2.2 | Provide system documentation and project artifacts contained as part of the production baseline and any unfinished items intended for completion and eventual addition to the baseline. |
| 0.4.2.3 | Provide all system configuration items that are part of the production baseline and unfinished items intended for completion and eventual addition to the baseline. The final delivery must be the current production version accompanied with the same version, source and executable code and all necessary compilation/generation instructions and comments. |
| 0.4.2.4 | Ensure that all AAOCS responsibilities are successfully transitioned to any follow-on AAOCS provider. |

(End of Task Order)

# ATTACHMENT H

# SAMPLE TASK ORDER 2

# BUSINESS MANAGEMENT COMPONENT

# PROGRAM MANAGEMENT
# AND ADMINISTRATIVE SUPPORT

## ATTACHMENT E: SAMPLE TASK ORDER 2 – PROGRAM MANAGEMENT and ADMINISTRATIVE SUPPORT

### 1. BACKGROUND

Currently, NOAA acquires IT infrastructure and services through multiple, often redundant, contracts in support of NOAA's Line and Staff Offices missions. As a result, NOAA's ability to manage multiple IT product and services contracts is inefficient. A new approach to acquiring NOAA's IT resources is being developed and is referred to as NOAALink. This new approach to IT acquisition management and administration provides corporate management controls, strategic vision, and synchronicity of effort. It also affords effective management oversight, by consolidating acquisition authority. NOAALink will afford NOAA leadership the ability to determine and invest in those strategic IT solutions that offer the best combination of price and performance, tailored to corporate needs and resource availability. NOAALink will also reduce the number of procurement actions required to meet NOAA's IT needs, increasing procurement workforce capacity, while concurrently reducing the number of Contracting Officer's Technical Representatives (COTRs) required to administer these acquisitions. By reducing the number of acquisitions necessary, NOAA can reduce the administrative burden on the technical and acquisition workforces. Such reduction provides the capability for more focused contract administration, and creates additional capacity for the NOAA Acquisition workforce to meet increasing mission requirements. An additional expected benefit of consolidation using the new approach under the NOAALink contracts is reduction in cost through economy of scales.

### 2. PROJECT MANAGEMENT and ADMINISTRATIVE SUPPORT TASKS - NOAA Link CORE MANAGEMENT SUPPORT SERVICES (CMSS)

Project Management and Administrative Support shall be provided by the Contractor to ensure that all task assignments under NOAALink CORE Management Support services are satisfied and task performance is provided continuously at the most economical and highest quality level. The Contract CMSS Project Manager will serve as the prime point-of-contact (POC) for all contracting/program/technical Government personnel in support of the Department of Commerce (DoC) and all the Bureaus and Offices concerning the NOAALink Core Management Support Services (CMSS) Team's performance pursuant to the terms of the contract.

#### *2.1. GENERAL REQUIREMENTS/SKILLS/RESPONSIBILITIES*

The Core Management Support Services (CMSS) Project Manager is required to have proficient knowledge and skills in project management, experiences in project management tools (ex. Microsoft Projects and Share Point, etc) and techniques to manage professionally NOAA's IT projects and operations. The NOAALink Contract CMSS Project Manager must be a certified Project/Program Management Professional and experienced in using the Project Management Institute (PMI) project life cycles: initiation, planning, execution, monitoring and controlling, and project closing. This also includes understanding and working with:

- Project Integration Management
- Project Scope Management
- Project Quality Management
- Project Time Management
- Project Cost Management
- Project Human Resources Management
- Project Communications Management
- Project Risk Management

The NOAALink Contract CMS Project Manager must have experience in developing project documents such as project management plans, charters, risk management, change management and quality assurance. They must be familiar with the Information Technology Infrastructure Library (ITIL), International Organization for Standardization (ISO) standards ISO 9000, ISO 10006:2003 quality management in project management, and ISO/IEC 20000. Additionally, experience in risk management (ex. opportunity, mitigation, probability, etc), requirements engineering, business analysis, knowledge of capital planning and investments control (CPIC), and knowledge of security (ex. Threat, certification and accreditation (C&A), and plan of action and milestones (POA&M)) are required. They must be able to mange effectively fundamental "interrelated" elements such as scope (i.e. project size, goal, objectives, and requirements), resources (i.e. people, equipment, and material), schedule (i.e. task durations, dependencies, and critical path), and budget (i.e. task durations, dependencies, and critical path).

##### 2.1.1. Scope

The NOAALink Contract CMSS Project Manager must manage all of their project scopes to ensure effective management of the resources, schedule, and budget. It is essential that the NOAALink Contract CMSS Project Manager monitor any change to the scope on a project to avoid the project from becoming unmanageable due to "scope creeping". The NOAALink Contract CMSS Project Manager must develop processes, manage, monitor, and implement corrective actions to potential problems.

#### 2.1.2. Resources

The NOAALink Contract CMSS Project Manager must successfully manage their project resources. The "resources" management may be more than people and include managing the equipment used/assigned for/to the project and the materials needed by the people. Additionally, the people resource may be more than just one contractor's employees but other contractor's employees. The NOAALink Contract CMSS Project Manager must be able to work with NOAA's senior personnel and managers along with other stakeholders assigned to NOAA projects.

#### 2.1.3. Schedule- Time Management

The NOAALink Contract CMSS Project Manager must successfully put into practice, time management utilizing all NOAA required software to help manage project schedules or timelines. The NOAALink Contract CMSS Project Manager must have experience with "breaking down" (i.e. work breakdown schedule (WBS)) large tasks into smaller activities to complete a project successfully. The NOAALink Contract CMSS Project Manager must be able to manage all tasks on the critical path(s), those that may not have enough resources, and complete them on time/schedule, within scope, and within budget.

#### 2.1.4. Budget

The NOAALink Contract CMSS Project Manager must have knowledge in federal contracts and acquisitions, ability to prepare a project budget, monitor the funds, and complete the project within that budget. Additionally, the Contract CMSS Project Manager must have experience using ***Earn Value Management*** through out the life cycle of a project.

### *2.2. DETAILED PROJECT MANAGEMENT AND ADMINISTRATIVE SUPPORT TASKS*

#### 2.2.1. Description, Objectives, and Tasks

2.2.1.1. **Description** – The Core Management Support Services (CMSS) Project Management is a process required to ensure that tasks under NOAALink projects, programs, and portfolios achieve their objectives and support the mission, vision, and goals of NOAA.

2.2.1.2. **Objectives** - The initial key objectives for CMSS Project Management are to:

- Provide better customer support by assisting their project teams in delivering projects on time, within budget, and to agreed-upon performance specifications;
- Support the NOAALINK as a source for best practices, training, advice and other elements of NOAA in their pursuit of project management excellence;
- Develop the capability using best practice processes and tools to implement project life-cycle management approach and reduced time from customer "demand to delivery;"
- Provide all Administrative support to ensure success of the tasks
- Point of Contact to DoC and NOAA

2.2.1.3. **Tasks** – Key tasks include:

- Resource Skills and Management
  - Provide support and expertise staff/resources to ensure success in all NOAALink CMSS tasks.
- Develop a program for communications and outreach, such as:
  - Training and Education including monitor and facilitate required certifications
  - Coaching and Mentoring
  - Team Development
  - Issue and Escalation Management (including Project Recovery)

- Effective management of contract employees and sub-contracts (i.e. adhere to contractual agreements)

- Provide Cost Estimation Support to include:
  - Develop and maintain cost estimates in support of CMSS Task-related activities, e.g., Economic Analysis (EA), Life Cycle Cost Estimates (LCCE), Independent Government Estimates (IGCE), Cost Analysis Requirements Description (CARD)

- Provide Validation and Verification CMSS Tasks to include:
  - Monitor each Task's cost, schedule, performance, and risk, and determine Cost Variance, Schedule Variance, Cost Performance Index, Schedule Performance Index, and ***Earned Value Management***;
  - Review and analyze CMSS Task deliverables for completeness and correctness;
  - Conduct Functional and Design audits;
  - Develop acceptance Test Plans and Procedures, conduct or oversee tests, and produce test results;
  - Provide ad hoc analysis and reports, e.g., "What-If" exercises or Comparative Cost Analysis Studies (CCAS) in support of financial, cost and technical reviews for the various IT programs
  - Provide metrics reports and risk assessments for each Task

- Development and monitoring NOAALink Program Management Plan
- Support configuration management - software, hardware as required
- Support risk analysis and management efforts
- Provide close out support
- Establish management controls such as milestones, expenditure rates, metrics and management reviews to reflect IT program status and provide early detection of problems. Recommend resolutions to IT programmatic problems. Review IT program documents and accesses the impact of external actions to determine effect on IT program. Recommend tradeoffs to cost, schedule and performance, as required. Apply state-of-the-art technologies and methodologies to IT program guidance, planning and solutions
- Provide Resource Management Support
- Provide Administrative Support
- Attend meetings supporting NOAA and supporting program planning, strategy efforts to include organizational, strategy assessments, and recommendations.
- Gather information and develop documentation/presentations for submission to NOAA management, expenditure meetings, PM requests
- Provide decision and status review support and reports, briefing support and meeting scheduling/coordination and material preparations, and communications efforts
- Assist with Review of acquisition and IT program management deliverables, document findings, and provide recommendations to Government POC for their decision.
- Support project, program, and portfolio management tasks, such as the creation of executive dashboards and reporting on projects.

### 3. <u>Project Management and Administrative Support Deliverables</u>

The Contractor shall adhere to the following deliverable requirements and schedule. The Contractor shall use and adhere to the document templates provided by the Contracting Officer's Technical Representative (COTR) to develop each deliverable. Most documents shall be completed using Microsoft 2003 or 2007 suite of products. This includes Word, Visio, Project Server, Power Point, and Excel. All project documents including plans shall be reviewed and updated as needed through out the project. All deliverables will be reviewed (i.e. periodical review/update meetings) and approved/signed by the COTR before acceptance by is assumed.

| Item | Deliverable Name | Description | Due Date | No. of Copies | Format |
|---|---|---|---|---|---|
| 1 | **Kick-off Meeting** (to be scheduled w/ COTR/Project Manager) | Introduce/Discuss/Plan the project with the Key Stakeholders and Performers/Actors (Project Manager (PM), COTR, OCIO, Security, and Management Representative) Representatives including Project Team Members) by holding a working session dedicated to planning all aspects of the project. | 5 calendar days after date of new project | N/A | N/A |
| 2 | **Participate in Weekly Status Meetings** | Status meetings with the COTR, Project Manager, Business Owner, Key Stake holders, and any other required staff. *Agenda, Meeting Minutes, and Action Items* shall be sent out as appropriate. Additionally the Integrated Baseline Review (IBR) scheduled TBD. | Weekly, every Monday starting the first Monday after kick-off. | Varies | Electronic |
| 3 | **Develop Weekly and Monthly Status Progress Report** | Develop Weekly and Monthly Status Progress Report including detailed information on Resource/Support, Issues, Actions, and Resolutions | Weekly, due every Monday starting the first Monday after project commences.<br><br>Monthly, due by the 5th day of each month. The first report will be due on the 5th of the month after project commences. | 1 | Electronic |
| | | | | 1 | Electronic |

| | | | | | |
|---|---|---|---|---|---|
| 4 | **Work Breakdown Structure (WBS) , WBS Dictionary, Performance Measurement Baseline (PMB), and Project Schedule that includes the critical path in Microsoft Project** (Detail schedule should also be included in the Project Management Plan) | Develop "high-level" **(included with proposal)** and "detail" WBS. Develop "high-level" **(included with proposal)** and "detail" schedules. The detail schedule shall be an iterative, interactive managed process throughout the project with participation by project manager (PM), and other government team members. Develop WBS Dictionary to include information about each work package, defining triple constraints, and the definition of 100% complete. Develop Performance Management Baseline (PMB) (ex. S-Curve, BCWS) as a part of Earn Value Management (EVM) during development. The Contractor shall hold a **Integrated Baseline Review (IBR) prior to beginning EVM** | Detail WBS and schedule<br><br>WBS Dictionary due 30 calendar days after date of each project | 1 | Electro nic |
| 5 | **Project Management Plan** | Document project scope, time, cost, and human resources. This document shall include sub plans such as risks management and mitigation, change management, quality control management, and communication. | Plan due 30 calendar days after date of award. | 1 | Electro nic |
| 6 | **Communication Plan** (Deliverable – Part of the overall project management plan) | Develop plan for communicating with the Project Team, Contractor technical subject matter experts (SME), management, and users to share and/or gather information.<br><br>The plan specifies communication process, methods, frequency, and recipients. | Draft plan due 15 calendar days after date of award. | 1 | Electro nic |
| 7 | **Risk Management Plan** (Deliverable – Part of the overall project management plan) | Develop a management plan to identify, track, and mitigate project risks. A correction action plan should be included. | Draft plan due 15 calendar days after date of award. | 1 | Electro nic |
| 8 | **Lesson Learned Document** | Participate in a Lessons Learned Review and document the results and recommendations at the end of this project.<br><br>Contractor and Government PM shall conduct reviews with stakeholders, project team and Contractor staff. | At the end of each project | 1 | Electro nic |

## 4.0 QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)

### 1. PURPOSE

This Quality Assurance Surveillance Plan (QASP) is a government-developed and applied document used to make sure that systematic quality assurance methods are used in the administration of the Performance Based Service Contract (PBSC) standards included in this contract and in subsequent task orders issued there under. The intent is to ensure that the Contractor performs in accordance with performance metrics set forth in the contract documents, that the Government receives the quality of services called for in the contract and that the Government only pays for the acceptable level of services received.

### 2. AUTHORITY

Authority for issuance of this QASP is provided under Contract – Inspection and Acceptance, which provides for inspections and acceptance of the articles, services, and documentation called for in task orders to be accomplished by the Contracting Officer or his duly authorized representative.

### 3. SCOPE

To fully understand the roles and the responsibilities of the parties, it is important to first define the distinction in terminology between the Quality *Assurance* Plan and the Quality *Assurance Surveillance* Plan. The Contractor, and not the Government, is responsible for management and quality control actions necessary to meet the quality standards set forth by the contract and follow-on task orders. The Contractor develops and submits his Quality Assurance Plan (QAP) for Government approval in compliance with his contract deliverables. Once accepted, the Contractor then uses the QAP to guide and to rigorously document the implementation of the required management and quality control actions to achieve the specified results. The QASP on the other hand, is put in place to provide Government *surveillance* oversight of the Contractor's quality control efforts to *assure* that they are timely, effective and are delivering the results specified in the contract or task order. The QASP is not a part of the contract nor is it intended to duplicate the Contractor's QAP. The Government may provide the Contractor an information copy of the QASP as an Attachment to the solicitation to support the Contractor's efforts in developing a QAP that will interrelate with the Government's QASP.

### 4. GOVERNMENT RESOURCES

The following definitions for Government resources are applicable to this plan:

**Contracting Officer**
A person duly appointed with the authority to enter into, administer, or terminate contracts and make related determinations and findings on behalf of the Government.

**Contracting Officer's Technical Representative (COTR)**
An individual designated in writing by the Contracting Officer to act as his/her authorized representative to assist in administering a contract. The source and authority for a Contracting Officer's Technical Representative (COTR) is the Contracting Officer. Contracting Officer's Technical Representative (COTR) limitations are contained in the written letter of designation.

**Technical Monitor**
An individual appointed by the Contracting Officer's Technical Representative (COTR) to act as his/her authorized representative for the technical administration of specific task order(s) issued under the contract. The duties and limitations of the Technical Monitor are contained in a written letter of designation and/or in the body of the issued task order.

### 5. RESPONSIBILITIES

The Government resources shall have responsibilities for the implementation of this QASP as follows:

**Contracting Officer**
The Contracting Officer ensures performance of all necessary actions for effective contracting ensures compliance with the terms of the contract and safeguards the interests of the United States in the contractual relationship. It is the Contracting Officer that assures the Contractor receives impartial, fair, and equitable treatment under the

contract. The Contracting Officer is ultimately responsible for the final determination of the adequacy of the Contractor's performance.

**Contracting Officer's Technical Representative (COTR)**
The Contracting Officer's Technical Representative (COTR) is responsible for technical administration of the project and assures proper Government surveillance of the Contractor's performance. The Contracting Officer's Technical Representative (COTR) is not empowered to make any contractual commitments or to authorize any contractual changes on the Government's behalf. Any changes that the Contractor deems may affect contract, price, terms, or conditions shall be referred to the Contracting Officer for action.

**Technical Monitor** – The Technical Monitor provides detailed technical oversight of the Contractor's performance and reports his or her findings to the Contracting Officer's Technical Representative (COTR) in a timely, complete and impartial fashion to support the Contracting Officer's Technical Representative (COTR)'s technical administration activities. While the Technical Monitor may serve as a direct conduit to provide Government guidance and feedback to the Contractor on technical matters, he or she is not empowered to make any contractual commitments or to authorize any contractual changes on the Government's behalf. Any changes that the Contractor deems may affect contract, price, terms, or conditions shall be referred to the Contracting Officer for action.

## 6. METHODS OF QA SURVEILLANCE

The below listed methods of surveillance shall be used in the administration of this QASP. In addition to specific instructions that may be mentioned, the appropriate and standardized form that is to be used for documentation of QA surveillance is the Surveillance Activity Checklist, included as *Attachment A*.

**Customer Feedback –** Customer feedback may be obtained either from the results of formal customer satisfaction surveys or from random customer complaints. Customer complaints, to be considered valid, must set forth clearly and in writing the detailed nature of the complaint, must be signed and must be forwarded to the Contracting Officer's Technical Representative (COTR).
The Contracting Officer's Technical Representative (COTR) shall maintain a summary log of all formally received customer complaints as well as a copy of each complaint in a documentation file. The Contracting Officer's Technical Representative (COTR) shall also keep the tabulated results of all customer satisfaction surveys on file and shall enter the summary results into the Surveillance Activity Checklist.

**100% Inspection**
Each month, the Contracting Officer's Technical Representative (COTR), or if so designated the appropriate Technical Monitor, shall review the generated documentation and enter summary results into the Surveillance Activity Checklist.

**Periodic Inspection**
Periodic inspections shall be conducted if and when specified in individual task orders or project management plan (PMP). For the potential tasks that have been identified so far and included in this QASP, the appropriate Technical Monitor typically performs the periodic inspection on a monthly basis.

**Random Monitoring**
Random monitoring shall be conducted if and when specified in individual task orders or project management plan (PMP). For the potential tasks that have been identified so far and included in this QASP, the random monitoring shall be performed by the Contracting Officer's Technical Representative (COTR) or by the appropriate designated Technical Monitor.

## 7. IDENTIFIED QA SURVEILLANCE TASKS

The following Performance Based Service Contract (PBSC) items are identified within this contract Statement of Work/ Statement of Objectives to be applicable on a National Oceanic and Atmospheric Administration (NOAA) wide basis and are to be monitored under this QASP. *The Quality Assurance method will be inspection for these tasks.*

**Contract Tasks**

- Resource Skills and Management:

- Support and expertise staff/resources to ensure success in all NOAALink Core Management Support Services (CMSS) tasks.
- Communications and Outreach Program, such as:
  - Training and Education including monitor and facilitate required certifications
  - Coaching and Mentoring
  - Team Development
  - Issue and Escalation Management (including Project Recovery)
  - Effective management of contract employees and sub-contracts (i.e. adhere to contractual agreements)

- Cost Estimation Support/Documents to include:

  - Develop cost estimates in support of CMSS Task-related activities, e.g., Economic Analysis (EA), Life Cycle Cost Estimates (LCCE), Independent Government Estimates (IGCE), Cost Analysis Requirements Description (CARD)

- Validation and Verification CMSS Tasks to include:
  - Monitor each Task's cost, schedule, performance, and risk, and determine Cost Variance, Schedule Variance, Cost Performance Index, Schedule Performance Index, and ***Earned Value Management***.
  - Develop WBS Dictionary to include information for each work package, defining triple constraints, and the definition of 100% complete. Develop Performance Management Baseline (PMB) (ex. S-Curve, BCWS) as a part of Earn Value Management (EVM) during development.
  - Monitor and provide reports and schedule status meetings
  - Review and analyze CMSS Task deliverables for completeness and correctness;
  - Conduct Functional and Design audits;
  - Develop acceptance Test Plans and Procedures, conduct or oversee tests, and produce test results;
  - Provide ad hoc analysis and reports, e.g., "What-If" exercises or Comparative Cost Analysis Studies (CCAS) in support of financial, cost and technical reviews for the various IT programs
  - Provide metrics reports and risk assessments for each Task

- Development and monitoring NOAALink Program Management Plan
- Configuration management - software, hardware as required
- Risk analysis and management efforts
- Close-out Process
- Establish management controls such as milestones, expenditure rates, metrics and management reviews to reflect IT program status and provide early detection of problems. Recommend resolutions to IT programmatic problems. Review IT program documents and accesses the impact of external actions to determine effect on IT program. Recommend tradeoffs to cost, schedule and performance, as required. Apply state-of-the-art technologies and methodologies to IT program guidance, planning and solutions
- Administrative Support
- Attend meetings supporting NOAA and supporting program planning, strategy efforts to include organizational, strategy assessments, and recommendations.
- Gather information and develop documentation/presentations for submission to NOAA management, expenditure meetings, PM requests
- Provide decision and status review support and reports, briefing support and meeting scheduling/coordination and material preparations, and communications efforts
- Assist with Review of acquisition and IT program management deliverables, document findings, and provide recommendations to Government POC for their decision.
- Support project, program, and portfolio management tasks, such as the creation of executive dashboards and reporting on projects.

**8. <u>QA Performance Measures and Acceptance Criteria of Deliverables</u>**

These deliverables will include technical performance, risk management, cost management, and schedule management as agreed upon between the Contractor and National Oceanic and Atmospheric Administration (NOAA).

| Item | Deliverable Name | Performance Standard Description | Acceptable Quality Level | Method Used / Frequency | Desired Output |
|---|---|---|---|---|---|
| 1 | **Kick-off Meeting** (to be scheduled w/ COTR/Project Manager) | Effectively Introduce/Discuss/Plan the project with the Key Stakeholders and Performers/Actors (Project Manager (PM), COTR, OCIO, Security, and Management Representative) Representatives including Project Team Members) by holding a working session dedicated to planning all aspects of the project. | Deliver on plan schedule | Inspection | Effective meeting with action items and Accurate Reporting for all documentation |
| 2 | **Participate in Weekly Status Meetings** | Effectively hold Status Meetings with the COTR, Project Manager, Business Owner, Key Stake holders, and any other required staff. *Agenda, Meeting Minutes, and Action Items* shall be sent out as appropriate. Additionally the Integrated Baseline Review (IBR) scheduled TBD. | Deliver on plan schedule | Inspection | Effective meeting with action items and Accurate Reporting for all documentation |
| 3 | **Develop Weekly and Monthly Status Progress Report** | Effectively Develop Weekly and Monthly Status Progress Report including detailed information on Resource/Support, Issues, Actions, and Resolutions | Deliver on plan schedule . | Inspection | Effective meeting with action items and Accurate Reporting for all documentation |
| | | | | Inspection | Effective meeting with action items and Accurate Reporting for all documentation |

| | | | | | |
|---|---|---|---|---|---|
| 4 | **Work Breakdown Structure (WBS) , WBS Dictionary, Performance Measurement Baseline (PMB), and Project Schedule that includes the critical path in Microsoft Project** (Detail schedule should also be included in the Project Management Plan) | Accurately Develop "high-level" **(included with proposal)** and "detail" WBS. Accurately Develop "high-level" **(included with proposal)** and "detail" schedules. The detail schedule shall be an iterative, interactive managed process throughout the project with participation by project manager (PM), and other government team members. Develop WBS Dictionary to include information about each work package, defining triple constraints, and the definition of 100% complete. Develop Performance Management Baseline (PMB) (ex. S-Curve, BCWS) as a part of Earn Value Management (EVM) during development. The Contractor shall hold a **Integrated Baseline Review (IBR) prior to beginning EVM** | Deliver on plan schedule | Inspection | Accurate Reporting for all documentation |
| 5 | **Project Management Plan** | Accurately Document project scope, time, cost, and human resources. This document shall include sub plans such as risks management and mitigation, change management, quality assurance management, and communication. | Deliver on plan schedule | Inspection | Accurate Reporting for all documentation |
| 6 | **Communication Plan** (Deliverable – Part of the overall project management plan) | Accurately Develop plan for communicating with the Project Team, Contractor technical subject matter experts (SME), management, and users to share and/or gather information.<br><br>The plan specifies communication process, methods, frequency, and recipients. | Deliver on plan schedule | Inspection | Accurate Reporting for all documentation |
| 7 | **Risk Management Plan** (Deliverable – Part of the overall project management plan) | Accurately Develop a management plan to identify, track, and mitigate project risks. A correction action plan should be included. | Deliver on plan schedule | Inspection | Accurate Reporting for all documentation |

| | | | | | |
|---|---|---|---|---|---|
| 8 | **Lesson Learned Document** | Participate in a Lessons Learned Review and document the results and recommendations at the end of this project. Contractor and Government PM shall conduct reviews with stakeholders, project team and Contractor staff. | Deliver on plan schedule | Inspection | Accurate Reporting for all documentation |

**9. DOCUMENTATION**

The Contracting Officer's Technical Representative (COTR) will, in addition to providing documentation to the Contracting Officer, maintain a complete Quality Assurance file. The file will contain copies of all reports, evaluations, recommendations, and any actions related to the Government' s performance of the quality assurance function, including the originals of all Surveillance Activity Checklists. All such records will be retained for the life of this contract. The Contracting Officer's Technical Representative (COTR) shall forward these records to the Contracting Officer at termination or completion of the contract.

**10. ATTACHMENTS**

The *Attachment A – Surveillance Activity Checklist* will be use as needed to document activities.

**ATTACHMENT A**

| **Surveillance Activity Checklist (To be performed Daily/Weekly/Monthly/etc)** | | | | **Contract No.** | | |
|---|---|---|---|---|---|---|
| **Performance Requirement** | **Performance Standard** | **Method of Measurement** | **Performance Metrics** | **Method of Surveillance** | **Date Accomplished** | **Compliance (Exceeded, Met or Partially Met)** |

(END OF TASK ORDER)

# ATTACHMENT I

# SAMPLE TASK ORDER 3

# INFRASTRUCTURE MANAGEMENT COMPONENT

# INFORMATION TECHNOLOGY (IT) INFRASTRUCTURE SUPPORT

## ATTACHMENT I: SAMPLE TASK ORDER 3 – INFORMATION TECHNOLOGY (IT) INFRASTRUCTURE SUPPORT

### 1.0 INTRODUCTION

This Statement of Objectives is being issued to purchase IT infrastructure support for NOAA IT systems at NOAA Head Quarters (HQ), Common IT Services (CITS), and Integrated Program Office (IPO) systems. The support is to provide, develop, improve and maintain Project Management, Local Area Networks (LAN), Wide Area Network (WAN) connectivity, Telecommunications, Systems Administration, Information Security and Assurance, IT Asset Management, Information Management, Data Base Management, Property Management, Records Management, IT Help Desk Support Services (Tiers 1,2 and 3), AV including VTC services, Training, Infrastructure Support Services and Web Development. In addition, the Contractor shall recommend, analyze, assess, and implement requirements in a flexible and innovative manner maintaining currency with laws, regulations, policies, and rules, while implementing state of the art technologies and advancements. Throughout the period of the performance of this task, the Contractor is encouraged to recommend improvements and help streamline processes to enhance efficiency and reliability of Government equipment and systems.

The Contractor will develop plans in consultation with the Government to develop and consolidate the operations of the three NOAA IT Service Centers to be covered under this task. The Contractor is expected to use the framework of the ITIL or comparable systems as a guideline for the architecture of the consolidation. The Contractor should consider a consolidated service desk with distributed tier two and three services as a starting point, if such a configuration has not already been established at the time the task comes into force

### 2.0 BACKGROUND

Through NOAALink, NOAA intends to enable economies-of-scale, consistent standards, and comprehensive IT services to develop a secure, reliable, technically robust operating environment to support NOAA's mission and goals and ensure the highest data quality for emergency management officials, decision makers, researchers, and the general public.

In execution of these objectives NOAA is concerned with taking steps to ensure:

- Continuous visibility into the activities of all NOAALink vehicles;
- Sufficient flexibility to handle unexpected requirements;
- Independent Validation and Verification (IV&V) of products in process and upon delivery of services;
- Development, maintenance, and use of an actionable catalog of IT offerings and practical Service-Level Agreements (SLAs) for delivery of products and services;
- Compliance with established cost constraints and financial processes;
- Contract change management

In this context, NESDIS expects the contractor to reengineer the current systems by consolidation and applying design improvements in such a way as to increase the service quality to the customer including the individual user, as well as introducing new and improved technologies as appropriate to improve Mission support. In addition, as a primary goal, NESDIS expects these improvements to increase efficiency and reduce overall costs.

While all three systems are in the maintenance level of the life cycle development, each has developed over a span of many years and has some components created to support unique requirements. The Contractor must be cognizant and supportive of these operational differences. For example not all systems require cable plant or PBX support.

The Contractor must also support the as-is structure of the systems as a prerequisite to and during modifications that will provide for improved efficiencies and structure.

### 3.0 SCOPE OBJECTIVES

NOAA will issue task orders against this contract which will define the deliverables for each particular support task. Areas which will be included in these task orders may include one or more of the following activities:

a. Provide support to project teams in delivering projects on time, within budget, and to agreed-upon performance specifications.

b. Develop the strategic alignment of projects, programs, and portfolios.

c. Examine industry best practices and developing life-cycle management approaches to reduce time from customer demand to system delivery.

d. Assist with efforts to improve alignment of IT with business requirements and services.

e. Implement e-Government transformation objectives including "the use of digital technologies to transform government operations in order to improve effectiveness, efficiency and service delivery".

f. Develop technology architecture services that support enterprise architecture programs and OMB compliance

g. Optimize technology utilization based on business requirements and maturity of the technology

h. Research and development technology that provides a consistent process to evaluate, test and adopt new technologies or upgrades to older technologies.

i. Develop governance in program-specific areas (e.g., processes and procedures), program-specific tools (e.g., program tracking tools, time/expense reporting, software development tools, and benefit measurement).

j. Review proposed SLAs for IT Services.

k. Support procurement and contract management functions.

l. Alignment of the IT organization to business outcomes

m. Focus IT on the core competencies of the agency

n. Plan information technology capabilities to sustain growth in capacity and functionality;

o. Reduce complexity in policy, process, and technology, to create a more agile, proactive response to new opportunities;

p. Establish partnerships, within and outside the agency, to leverage all available resources more efficiently and effectively; and

q. Organize for continuous improvement and innovation, through, analysis, evaluation, and change management.

4.0 REQUIREMENTS

(a) Project Management

Provide project management of the application of the task including managing all work within a project schedule ensuring timeliness, prioritization, and proper distribution of workload for all contract efforts. Project management also includes action items, Configuration Control Board/s (CCB), and Configuration Control Requests (CCR).

- Provide for Incident Response and Problem Management including root cause of system problems, such as the configuration items that are at fault or system outages, and provide the CITS manager and CITS CCB with information and advice on the necessary corrective actions or workarounds. This process needs to be carefully managed and planned. Incident Response activities include: problem identification, recording, classification, and diagnosis. Error Control includes providing correction of configuration items to remove errors / faults, and the overall management of known errors while they remain unresolved and until they are eliminated by the successful implementation of change under the CITS CCB process. IT Security require reporting all possible incidents to the system ISSO or Owner and following their direction as well as NOAA IT Security Incident policy. This includes providing required assistance and all required documentation for all IT security incidents.
- Provide for Form Processing where the Project Manager ensures the proper forms are utilized to track move, add, changes, and the proper Government authorities sign forms before any requests are implemented.
- Provide for Purchase Requests including price quotes and obtaining the proper approval prior to purchasing any hardware, software, or maintenance agreement under the contract.
- Providing Reports including written emails and/or reports for the following items:

  - Work schedule changes and after hours support. Work performed or scheduled outside of the core support hours of 6am – 6pm (M-F) should be reported to the CITS Manager via email or by phone in the event of an emergency (ex. System outage in the middle of the night).

- Staffing changes on the contract shall be reported to the CITS Manager for review and approval.

- All system problems and outages shall be reported to the CITS manager at the time the problem has been identified and formally documented using a CITS Incident Report once the problem has been rectified.

- Input for the monthly Executive Report to be submitted via email to the Task Manager/s at the end of each month.
- Provide input for data calls associated with any supported system under the contract.

- The Project Manager shall ensure the proper forms are utilized to track move, add, changes, and the proper Government authorities sign forms before any requests are implemented.

- The Project Manager will provide written emails and/or reports for the following items:

  - Work schedule changes and after hours support. Work performed or scheduled outside of the core support hours of 6am – 6pm (M-F) should be reported to the CITS Manager via email or by phone in the event of an emergency (ex. System outage in the middle of the night).

  - Staffing changes on the contract shall be reported to the CITS Manager for review and approvial.

  - All system problems and outages shall be reported to the CITS manager at the time the problem has been identified and formally documented using a CITS Incident Report once the problem has been rectified.

  - Input for the monthly CITS Executive Report shall be submitted via email to the CITS Manager at the end of each month.

  - Input for data calls associated with any supported system under the contract.

- The Project Manager holds a monthly status meeting to present completed tasks for the month, upcoming tasks, and identify any problems that may require the assistance of the CITS Manager.

- The Project Manager manages all maintenance agreements placed under the contract, which may include but are not limited to:

  - Maintenance agreement with certified AV professional to support NSOF AV system, including but not limited to projector bulb replacement, system repairs, and manufactures recommended services approved by the CITS Manager.

  - Maintenance agreement with certified AVAYA partner to support the NSOF phone system (PBX) including but not limited to servicing the PBX system, handsets, and phone system cable infrastructure approved by the CITS Manager.

  - Maintenance agreement with BICSI certified cable installer to install, repair, and test NSOF infrastructure cabling approved by the CITS Manager.

  - Hardware and software maintenance agreements for the NSOF administrative LAN hardware and software, including but not limited to CISCO, Surfcontrol, Frontrange, and Itracs.

- The Project Manager ensures that the contract staff follow the CITS CCB process to properly track and approve system changes. The following area shall be lead by the Project Manager:

- The Contractor follows the CCR process and updates the configuration management system when any changes to a particular system are performed. The configuration management policies and procedures, which are established and maintained by the system Management groups, describe the process for these updates.

- The Project Manager assesses all changes for impact to assets, ensures the feasibility of all proposed changes, provides a frame work so that those initiating changes may be held accountability for the actual work, prevents the introduction of changes which represent an unacceptable risk to the organization, and prevents the introduction of unauthorized changes.

- Using the CM process the Project Manager undertakes the planning, design, building, configuration, and testing of all hardware and software changes. Activities also cover the planning, preparation, and scheduling of changes.

(b) Local Area Networks (LAN)

- The Contractor provides Network and Database Administration in the form of Windows Administration, Directory Services (Active Directory), Novell, Linux Administration, Network Services (DNS, DHCP, WWW), Database Administration (SQL, Oracle, MySQL), Web Development (public/intranet), and Application Development.

- The Contractor examines documentation and assists in implementing:

  - Maintain Software and Hardware that does not allow compromise to the Networks,
  - Deploy, Configure, Provide maintenance and monitoring of active network gear (switches, routers, firewalls, etc),
  - Provide network addressing assignments,
  - Assign routing protocols and routing table configurations,
  - Provide configuration of authentication an authorization – Directory Services,
  - Provide maintenance of network facilities (i.e. servers, file servers, printer servers, VPN Gateways, IDS, IPS, etc),
  - Provide concentration on Network Design and Security,
  - Provide troubleshooting and debugging of network related problems,
  - Provide maintenance of the network authorization infrastructure as well as the network backup system,
  - Provide Network Directory Services: Domain Naming Services (DNS), Domain Host Configuration Protocol (DHCP) and World Wide Web (WWW) services,
  - Provide secure wireless technology capability,
  - Provide Telecom Network Engineering (Data, Voice, and Video) as applicable to the System, and
  - Provide Network Planning, Implementation, Maintenance, and Monitoring through an IPO Network Operations Center (IPO NOC).

- The Contractor provides Directory Services for Active Directory and Novell:

  - Provides central authentication and authorization services for Windows based computers, and
  - Provides Active Directory and Novell services to allow administrators to assign policies, deploy software, and apply critical updates to the LAN infrastructure.

(c) Wide Area Networks (WAN)

- The Contractor maintains and troubleshoots all approved Internet connections to the Operational and Administrative networks within the Systems.

- The Contractor provides equipment and cabling necessary to support the NSOF Administrative network. This includes implementing, maintaining, and coordinating all intra-site connections for the NSOF facility on the Administrative network. The Contractor

provides cabling connectivity to the operational networks for all approve connections within the NSOF building.

- The Contractor maintains and troubleshoots all networking hardware on the NSOF Administrative network. The Contractor recommends and implements compatible replacement hardware to meet specific NOAA NOAA Service Level Agreement requirements for operations on the Administrative networks. The Contractor maintains a database of network equipment, including all applicable warranty information, and provide the Common Services organization enhancement recommendations on an annual basis. The Contractor performs patch management on each administrative LAN server and device in accordance to the administrative LAN patch management policy.

- The Contractor maintains, and troubleshoots all network software on the Administrative network. The Contractor makes recommendations and implements compatible replacement software to meet specific NOAA SLA requirements for operations on the Administrative networks. The Contractor maintains databases of software, including all applicable licensing and warranty information, which are provided to the Systems on at least an annual basis.

- The Contractor provides the technical support and troubleshooting of networking hardware and software including the software that is centrally managed by NOAA. The Contractor shall use the applicable call tracking system, and shall perform all levels of network technical troubleshooting, including telephone technical support. The Contractor shall provide a single point-of-contact number to the Call Center groups to ensure proper routing of the trouble/request calls.

- The Contractor maintains and documents configuration changes for DNS, DHCP, VPN, Web Server, FTP Server, File Server, Print Server, and email accounts using the CCB CCR processes.

- The Contractor maintains traffic monitoring and capacity analysis and monitors and records data traffic statistics for the Administrative LAN networks.

- The Contractor installs and maintains all of the equipment necessary to provide Virtual Private Networking (VPN) access to the NSOF and IPO Administrative network. The Contractor configures all approved users for remote access, and implements dual factor security controls on these connections. At HQ, the contractor works with the NOAA Network Operations Center (NOC), which provides VPN servers to support user access.

- The Contractor performs network monitoring for the Administrative LANs utilizing networking monitoring tools provided by NOAA. The Contractor also analyzes network statistics, including traffic flow for the Administrative networks, performs reviews and trend analysis, and submits enhancement recommendations to System management and CCBs.

- In coordination with the NOAA Network Operations Center (NOC) in Silver Spring, MD, the Contractor documents and provides all public IP addresses for the System's Administrative and operational networks. The Contractor documents and manages any NAT and DHCP servers and their corresponding address space using the CCR process.

- The Contractor manages and troubleshoots all approved public Domain Naming Service (DNS) name spaces that are owned and operated by the included organizations, on both the Administrative and Operational networks. This includes obtaining domain names from the NOAA NOC, managing and assigning the proper IP address to correspond to the correct domain names, and updating DNS names and entries.

(e) Systems Administration

- The Contractor manages the directory servers for the System administrative network domains. As requested by the organizations, and approved by the administrative network ISSOs and the System Managers, the Contractor sets up and maintains accounts and access groups as well as folder and file sharing capabilities

- The contractor provides Linux Administration:

    - Provide central authentication and authorization services,
    - Analyze the data stored on the linux system and make recommendations relating to performance and efficiency of that data storage,
    - Provide maintenance of network facilities (i.e. servers, file servers, printer servers, VPN Gateways, IDS, IPS, etc),
    - Deploy, Configure, Provide maintenance and monitoring of active network gear (switches, routers, firewalls, etc)

- As requested by the NESDIS organization and approved by the CCBs, the Contractor establishes and implements systems to provide redundant web hosting services (mirroring) for applications on the Administrative networks. The Contractor designs, maintains and manages and update new and existing websites for the NOAA offices. The Contractor's Web Designer works with the client to bring users up to a level where they can also contribute to the design and development of the system.

(f) Information Security and Assurance

- The Contractor assists the Information Systems Security Officers (ISSO) in developing a computer security program framework for the System which includes the Information Security Framework of Patch Management, Configuration Change Management, Vulnerability Assessment, Continuous Monitoring, and Security Controls.

- The Contractor assists the System's ISSO in determining what computer security program elements exist or don't exist. The Contractor shall examine documentation and assist in implementing:

    - Application systems certifications,
    - Risk analyses,
    - Information technology installation reviews,
    - Technical software evaluation,
    - Contingency and Disaster Recovery Plans and Tests,
    - Personnel security,
    - Computer Security Awareness and Training,
    - Security management and coordination.
    - Secure end-user computing,
    - Application systems security,
    - Information Technology installation security,
    - Availability of service and continuity of operations,
    - Data and System integrity,
    - Confidentiality of data,
    - Access Control and Accountability,
    - Separation of Duties,
    - Availability of service and continuity of operations,
    - Continuous Monitoring, and capacity analysis, and
    - Auditability of operations.

- The Contractor provides the practice of managing information-related risks. More specifically, the contractor assists in the protection of the Confidentiality, Integrity, and Availability of the LAN data and its delivery systems. These goals are relevant whether the data are in storage, processing, or transit, and whether threatened by malice or accident.

- The Contractor:

    - Reviews and adheres to federal regulations,
    - Reviews and understands the System's mission statement(s),
    - Reviews, Modifies, and Creates with ISSO guidance, the System's Information Management Security Goals, Policies, Procedures, and Standards,
    - Provides position descriptions, including authorities and responsibilities,
    - Provides staffing justifications, resource requirements projections, budget projections, Plans of Action and Milestones (POA&M's) and schedules,
    - Provides support to the System's ISSOs in developing all applicable documentation and security implementations associated with the System's Certification and Accreditation Packages,
    - Provides Computer Infraction/Violation response capability at the guidance and direction of the ISSOs, and
- Provide enforcement of IT compliancy at the direction of the ISSOs and Executive Management.

- The Contractor provides a Computer Incident Response Capability (CIRC), that: 1) prevents, detects, and eradicates malicious code; 2) monitors the network for intrusion attempts; and 3) maintains records of the above incidents and file reports as may be required, as well as 4) supporting the NOAA CIRT in any incident investigation.

- The Contractor provides a Computer Incident Response Team (CIRT), chaired by the IPO ISSO, that 1) prevents, detects, and eradicates malicious code; 2) monitors the network for intrusion attempts; and 3) maintains records of the above incidents and file reports as my be required.

(g) Information Management

- The Contractor provides the management of information by collecting and disseminating information through central means and providing document management support through Project Collaboration Solutions.

The Contractor provides Records Management Support by:

- Ensuring the compliance of local Records Management Instructions with current Regulatory obligations,
- Assisting in the implementation of a Standard Operating Procedure for the management of records to be placed on the System's intranet,
- Assisting the System's Records Management Records Liaison Officer (RLO) in the storage, retrieval, tracking, and administration of System documents,
- Providing conversion capability if existing System paper records to electronic images,
- Assisting in the invention of System records,
- Coordinating the destruction of the System burn documents, and
- Assisting the RLO implementing records schedules.

(h) Data Base Management

- The Contractor provide Database Administration for SQL, Oracle, MYSql, Web Development (public/intranet), and Application Development.

- The Contractor:

    - Installs new versions of DBMS software, application software, and other software related to DBMS administration,
    - Tests and evaluates all DBMS software before moving into the IPO's production environment,
    - Configures Hardware and Software with the System Administrator, when required,

- Monitors and administers DBMS Security by adding and removing users, administrating quotas, auditing and checking for security problems,
- Analyzes the data stored in the database and make recommendations relating to performance and efficiency of that data storage,
- Is actively involved at the preliminary database-design stages, and
- Provides data modeling and optimization to take advantage of the I/O subsystems.

(i) Property Management

- The Contractor works with the NOAA Property Management Office and the Government Property Custodian to ensure accountable property is correctly entered into the property system and is kept updated using the proper NOAA forms. Property tag numbers, serial numbers, model numbers and manufacture dates shall be tracked using a database.

- The Contractor maintains the baseline of ADP capabilities in the database, which provides configuration management for the ADP systems.

(j) IT Help Desk Support Services (Tiers 1, 2 and 3)

- The Help Desk/s provide a day-to-day contact point between users, IT services and third party support organizations. Its objective is to provide a single point on contact to provide advice, guidance and may also be involved in providing a rapid restoration of normal services to its users' following any service disruption.

- The Contractor answers all telephone, voice mail, and emailed requests into the CITS Help Desk during normal work hours.

- At CITS the Contractor provides technical staff to support around-the-clock (24 hours a day) on an on-call basis in the event of an emergency. The requirement at the HQ and IPO is 9X5 on site support with on call after hours support for emergencies.

- The contractor is responsible for the monitoring and resolution of all trouble tickets. The Help Desk is the owner of all trouble tickets. Trouble tickets that cannot be resolved immediately by the Help Desk may be assigned to specialist.

- The Contractor documents all service requests into a ticketing system, and routes the request to the appropriate group for service. Trouble ticket classification is an important role of the Help Desk. The final classification of a reported trouble may vary to the initially reported one.

- All trouble tickets should include symptoms, basic diagnostic data and information about the configuration item and service affected. The CITS Help Desk should receive appropriate alerts and maintain overall control of trouble tickets.

- Wherever possible, the user should be provided with the means to continue their business functions. Every effort should be made to minimize the impact of the trouble to the user.

- The Contractor ensures that the request for service is completed, and that the ticket request has been closed. The Contractor shall maintain ownership of the call to ensure that all requests are completed in a timely manner and within the prescribed SLAs established by the appropriate organizations. When the trouble has been resolved, the Help Desk must ensure the trouble tickets are completed and accurate, and that the resolution is agreed with the user.

- Move, Add, Change (MAC) Processing - The Contractor shall coordinate the Move, Add and Change (MAC) Request Process. The Contractor shall record all data for MACs, acting as the single point of contact for all MAC requests. All MAC requests are then routed to the proper NOAA and NESDIS authority for approvals.

- Configuration Updates - The Contractor shall update the asset management database for all MAC requests.

- The Contractor schedules NSOF conference room reservations using the NSOF intranet conference room calendar system.

- In coordination with the NOAA Silver Spring office and local Federal Management, the Contractor implements and maintains email and group accounts on the NOAA directory server.

(k) AV including VTC Services

- At CITS the Contractor maintains and troubleshoots all Audio-Visual (A/V) and teleconference hardware, software and/or commercial services as requested by the organizations and approved by the CITS Manager. This Contractor also sets up and manages A/V equipment for meetings, briefings, seminars, and A/V technical support for out-of-town conferences.

- The Contractor manages the operation and scheduling of the NOAA VTC conferencing system including resolution of all connectivity issues with the various program organizations that communicate with NOAA; this includes, but is not limited to Other DOC entities, other Federal agencies, NOAA commercial partners or support groups and organizations or governments of foreign countries.

- The Contractor coordinates and manage the implementation of hardware and software upgrades. This includes the development and implementation of scheduling procedures; development of maintenance procedures; development of network and hardware diagnostic procedures; and providing training as appropriate.

- The Contractor develops intranet and internet web pages in a secure environment to host a variety of documentation for major NOAA projects. Documentation includes, but is not limited to, system technical documentation, configuration management, baseline diagrams, system software components, and a variety of interactive information and data repositories.

- The Contractor provides input and assist with the development, modification, operation, and security of the information and document repository. The Contractor may be required to create and maintain documentation of the evolution from one server to multiple servers.

(l) Training

- The IT support staff provides training to the users for the hardware and software in the Technical Reference Manual (TRM) in response to help desk tickets. The contractor may be called upon to develop training to support IT Security requirements.

(m) Infrastructure Support Services

- At CITS the Contractor provides cabling management supports for Administrative LAN and mission-critical functions of NSOF. There are two categories for Cabling Management: Cable Connections and Cable Maintenance. The Contractor shall maintain database of cables in NSOF.

- Cable Connections - The Contract shall provide all cable connections after the operational center plugs into assigned demarcation points. These demarcation points will be located in one of the six communications room in NSOF or at a consolidation point.

- Cable Maintenance - The Contractor shall manage all infrastructure cable connections using a cable database application developed by the “iTRACS Corporation.” This database will have a graphical interface and output to facilitate the making and tracking of connections. If a problem is found on the infrastructure cabling the Contractor will coordinate all repairs.

- The Contractor also maintains, records, and troubleshoots voice and voice-band services to all organizations within the building. The technical facility shall be a Public Branch Exchange (PBX) with a separate cable pair to each port within a breakout box reserved for voice. Services shall be based on orders from the organization through the CITS MAC process. Voice services support the mission critical operations within NSOF. The Contractor maintains and troubleshoots the voice mail services on the PBX.

- Desktop Voice Services - The Contractor shall provide, maintain, inventory and troubleshoot all telephone hardware including the physical phone handset

(n) Web Development

- The contractor provides web design and web content development, provides client side and server side configuration, and provides web page and intranet site support

**NETWORK AND EQUIPMENT DESCRIPTION**

The following tables describe the network and equipment installed at the NESDIS locations to be supported by the Contractor.

| | **CITS – NSOF Admin LAN**<br>Suitland, MD |
|---|---|
| Network Description | NSOF ADMIN LAN is a Microsoft Windows network. Currently, it is running a Windows 2003 Active Directory Server Domain<br>The NSOF ADMIN LAN consists of multiple redundant Windows Domain Controllers, several File servers, Web/FTP servers, Intranet servers, Routing and Remote Access server, and a few Application servers that host applications such as: Microsoft SQL Server, Heat, Microsoft SUS Server, McAfee e-Policy Server, Filemaker Pro Server, Doors Server, Lotus Notes, Cold Fusion, and SurfControl Web Filter, etc. Most of these servers are running Windows 2003 Server and some are still on Windows Server 2000. The NSOF ADMIN LAN is currently using approximately 1 TB of storage space. The data on servers are backed up daily to a tape library by using Backup Executive software. The Storage Server provides approximately 2 TB of storage space. |
| Workstations and Operating Systems | There are approximately 500 desktops and laptops connected to the NSOF ADMIN LAN. The majority of these PCs are running Windows XP. There are a handful of PCs that are running Windows 2000; There are also a few Linux and Unix boxes on the NSOF ADMIN LAN for specialized services for users on the NSOF Admin LAN. |
| Devices/Technologies Supported | WAN: NOAA MAN connectivity provided by the NOAA Network Operations Center;<br>LAN: Redundant Cisco Pix Firewalls, Several Cisco 6500 series switches, 25+ Dell Servers, Web Filter Server, IDS, Over 30 LAN printers<br>Remote Access/Telecom: Cisco VPN Concentrator, Polycom VTC Equipment, Specialized AV Video Wall, Cable Plant Database system, AVAYA PBX system |
| Services Managed | Email server managed by NOAA Message Operations Center; NSOF Admin LAN Admins manage email accounts for 500+ users on the NOAA Email Directory<br>VPN (Remote Access and site-to-site),<br>Microsoft Active Directory (AD),<br>FTP, HTTP, HTTPS, DNS, Terminal Services |
| Help Desk Statistics | 500+ Calls average per typical month<br>15% = Network related issues P1E (Priority 1Emergency – Multiple users)<br>25% = User connectivity (LAN, Databases, E-mail, Remote Access)<br>20% = Services / Installation<br>35% = Software/Hardware related issues<br>2% = Consultations<br>3% = Upgrades |

| | **NOAA-IPO**<br>Silver Spring, MD |
|---|---|
| Network Description | Cisco equipment is used for the firewall (PIX), routers, VPN, RAS, Call Manager (Voice over IP) and switches, to control access to the IPO four physical segment network systems. The IPO physical network includes the following:<br>IPO Private Segment which contains the user=s workstations, network fileservers, application servers, Switches and printers;<br>IPO Public Segment which contains servers for the IPO mail, webmail, and FTP;<br>IPO Telephony Segment which contains the telephony system that provides IP telephone services for the IPO including voice, voice mail, corporate directory and personal address book; and<br>IPO Remote Access Segment which contains the Remote Access server for the IPO remote dial-in, access control server (TACACS+, RADIUS), the VPN server for the IPO secure remote connectivity. |
| Workstations and Operating Systems | 175 Workstations supported<br>164 using Windows XP Professional<br>7 using Red Hat Linux Workstation<br>4 using Apple MAC OS |
| Devices/Technologies Supported | WAN: Cisco 3660 router, Cisco 4000 series, Juniper M10 FNS, Frame-Relay, ISDN-PRI, PPP<br>LAN: Cisco Catalyst 4006 switches, Cisco 3548 Switches, Cisco Switches, Gigabit Ethernet backbone, Fast Ethernet, VLAN<br>Remote Access/Telecom: Cisco 3660 Remote Access router, Cisco 3015 VPN Concentrator, Cisco 3660 router (VoIP) PPP, Ipsec |
| Services Managed | Email (IMAP, POP3, SMTP, LDAP)<br>VPN (Remote Access and site-to-site)<br>Microsoft Active Directory (AD),<br>FTP, HTTP, HTTPS, DNS,<br>Remote Access (Digital dial-up, and VPN) |
| Help Desk Statistics | 500 Calls average per typical month<br>2% = Network related issues P1E (Priority 1Emergency B Multiple users)<br>10% = User connectivity (LAN, Databases, Email, Remote Access)<br>25% = Services/Installation<br>38% = Software/Hardware related issues<br>20% = Consultations<br>5% = Upgrades |

| | **NOAA-Headquarters**<br>Silver Spring, MD |
|---|---|
| Network Description | The NESDIS HQ ITS provides mission support and resources for IT management functions and overall office automation support for the programs, offices, and staff of the NESDIS HQ. NESDIS HQ ITS provides access to automated programs and systems in support of administrative programs such as budget and financial management, personnel management, procurement, building operation and management, interagency programs, IT planning, and IT security. The system also provides access to the Internet and supports web pages providing NOAA information and data to the public. The system runs Novell Netware, Windows 2003 server, Red Hat Linux and Solaris. |
| Workstations and Operating Systems | 200 Workstations supported<br>75 Laptops supported<br>100% using Windows XP Professional |
| Devices/Technologies Supported | Servers:<br>Dual Intel(R) Pentium 3.4 GHz Netware 6.5 (1)<br>Dual Intel(R) Xeon(TM) Pentium 1GHz Netware 6.5 (1)<br>Quad Core Intel(R) Xeon(TM) CPU 3.06GHz (Linux)<br>Intel(R) Xeon(TM) CPU 3.2GHz (Linux) |

| | |
|---|---|
| | Intel(R) Xeon(TM) CPU 3.2GHz (Linux)<br>Dual Quad Core Intel(R) Xeon(TM) CPU 3.73GHz (Linux)<br>Dual Quad Core Intel(R) Xeon(TM) CPU 3.73GHz (Linux)<br>Dual Core Intel(R) Xeon(TM) CPU 3.2GHz (Linux)<br>Quad Core Intel(R) Xeon(TM) CPU 3.6GHz (Linux)<br>Dual Core Intel(R) Xeon(TM) CPU 3.6GHz (Linux)<br>Dual Core Intel(R) Pentium(R) 4 CPU 2.80GHz<br>Quad Core Intel(R) Pentium(R) 4 CPU 3.40GHz |
| Services Managed | FTP, HTTP, HTTPS, DNS<br>Remote Access (VPN)<br>Web hosting<br>Desktop support |
| Help Desk Statistics | 400-500 Calls average per typical month<br>3% = Network related issues P1E (Priority 1Emergency B Multiple users)<br>25% = User connectivity (LAN, Databases, E-mail, Remote Access)<br>35% = Services/Installation<br>19% = Software/Hardware related issues<br>12% = Upgrades<br>5% = Consultations |

5.0 OPERATING CONSTRAINTS

The following constraints shall apply to any contract and all subsequent task orders resulting from this solicitation.

a. Any respondent to this solicitation that is awarded a contract to perform under this Statement of Objectives may not receive any contract award, or be part of any team of contractors which receive an award under any other portion of the NOAALink program.

b. All respondents shall demonstrate experience and understanding of each of the following:
   - The Office of Management and Budget (OMB) Federal Enterprise Architecture Framework (FEAF); including scope, direction, and governance practices.
   - General Accountability Office (GAO) EA Maturity Management Framework (EAMMF) model, how it is scored and how to advance against the scorecard
   - Department of Defense Architecture Framework (DoDAF), The Open Group Architecture Framework (TOGAF), Zachman and FEAF framework models in advancing agency strategic goals.
   - Best-practices experience from other federal agencies with Program and Project Management, Decision Support, and Enterprise Architecture.
   - Working knowledge of Industry Best Practices with Program and Project Management, Decision Support, and Enterprise Architecture.
   - Experience with the integration and interaction between the disciplines of Project Management, Decision Support, and Enterprise Architecture.
   - Contract Management and Performance Measurement including the use of Earned Value Management.

c. Any respondent to this solicitation that is awarded a contract to perform under this Statement of Objectives must maintain familiarity with Federal statute law, regulations, directives and Policies pertaining to Information Technology within the context of NOAA and the DOC and apply this knowledge to all task orders which may be proposed or awarded subsequently.

6.0 PERIOD OF PERFORMANCE

The period of performance of work performed under this task order is to commence February 1, 2010 and will not exceed the duration of ten years.

7.0 PLACE OF PERFORMANCE

All work performed under this task order awarded subsequent to this Statement of Objectives will be conducted in the facilities of NOAA and the U.S. Department of Commerce including its component Bureaus unless otherwise specified.

# ATTACHMENT J

# SAMPLE TASK ORDER 4

# CUSTOMER CARE

# END USER SUPPORT CENTER

## ATTACHMENT J: SAMPLE TASK ORDER 4 – END USER SUPPORT CENTER

1.1 Introduction

NOAA operates helpdesk services that provide a variety of services including network workstation configuration support, general desktop troubleshooting concerning hardware and software problems. Computer services staff coordinate the receipt and dissemination of calls and distribute according to priority and expertise. Customer service is the number one priority for all helpdesk services.

1.3 Functional Requirements

This section lists requirements for Tier One Services as outlined in the following

**General Management**

Manage help desk /service desk functions; provide reports to government managers including activity, service usage, cost accounting, cost projections on a periodic and as requested basis.

Provide proposals for special projects or assistance (e.g., assistance at a meeting, workshop, presentation, convention, supporting large scale move, etc.) that may be an extension of normal workload.

Maintain and publish service catalog and service level agreements

Market services to users – use brochures, presentations, posters, email, and other methods to inform users of the full extent of services, processes, procedures and policies.

Use communications opportunities to ensure that users are aware of trends in helpdesk services, IT security, and other relevant information.

Ensure that all staff have full understanding of applicable IT security policies and processes and that they communicate relevant IT security information to users when the opportunity arises to ensure that all users are fully aware of their role in IT security.

Continuous service improvement – Throughout the life of the contract, the Contractor shall actively work to study processes and policies to find ways to improve current services. The Contractor will communicate with government mangers on these improvements and will implement them as agreed.

The Contractor shall seek to adopt best practices for help desk services through the life of the contract.

The Contractor shall seek to resolve the highest possible percentage of customer request on first contact. Contractor shall propose what these contact types are that they can resolve on first contact.

The Contractor shall have a customer request analysis process to seek common solutions to similar requests. The Contractor shall communicate this analysis to government managers and to other contractors including desktop management teams, network management teams, and other groups in an effort to provide overall improvements to customer service and customer experience.

The Contractor shall have a customer service review process that considers call closures, unclosed calls, customer satisfaction, repeated requests, customer interactions, etc., and resolves issues, and reports to government management on customer satisfaction, process improvement opportunities, and management issues and risks. Contractor shall assist with workplace safety and will operate a safe workplace.

Government may offer space for help desk operations.

**Contact Management**

Response to user requests - All end user reported issues, suggestions or comments will be promptly responded to within a time period agreed to by the government. This initial contact may be via telephone, walk up, electronic

mail or written request for help. Contractor shall track the time it takes to respond to user request and develop performance measurements and targets in coordination with the government management.

Hours of operation – Contractor shall propose hours of operation that are suitable to the government's requirements. Contractor may propose standard hours for normal business use and an after-hours method. After hours contact management must meet the agreed-to time frames by the government management.

Customer Contact Information - All reported requests for help will be captured in an automated tracking system which will include the following information Who - What - Where - Why – When. Prioritization of calls requires immediate service to customers on VIP lists. The tracking system will capture open date and time, priority, diagnosis, action and possible recommendations, close date and time; final diagnosis; and root cause.

Helpdesk Call Tracking Administration to coordinate problem ticket distribution and escalation among technicians, system administrators and other support staff. Ensuring all helpdesk tickets are resolved and closed according to agreed upon metrics

The tracking system will serve as a central repository for calls, call prioritization, call management, and call distribution to specialized tier staff when required, such as network engineers or an email specialist

Detailed logs and notes, design or configuration changes initiated from a initial help desk call will be tracked Services will include reports for management and technical review. Research, evaluate and provide feedback on problematic trends and patterns.
A web-enabled knowledge base is required to be incorporated into the tracking system

Communications with all users - Helpdesk shall be able to communicate quickly to all users or specific groups of users, information including but not limited to: service changes and improvements, service outages, policy changes and improvements, general announcements and promotions, security alerts, technology upgrades, property management, and emergency alerts.

Contractor shall accept customer service request via phone, email, walk-up window, personal contact with helpdesk staff in the middle of other work, etc.

**Technical Support – Initial Contact**

The contractor shall strive for the highest percentage first contact issue resolution. Typical issues that customers may have include:

Account password changes – Assist users with password changes.
Electronic message archiving
Computer network, desktop computer, peripheral equipment and software malfunction.
Add new software / software upgrade / patch.
Adjust configuration of personal computers; maintenance, testing, reset.
Workstation and peripheral equipment connectivity, network issues
Installation of standard application software suites and NOAA specific applications.
Provide expert level ad hoc assistance to users on standard software systems
Provide services for maintaining remote access laptop systems, checking them out and checking them in, and for ensuring that they are configured properly for remote access
Cell phone, Personal digital assistant and hand held devices not working, not receiving email, not receiving updates, backup issues
Virus / malware problem resolution
General questions on application use.
Scheduling service resources (meetings, video conferencing, graphics and other special services).
Plan simple service initiation, move, add, or change.
Record initial contact for larger service initiation, move, add, change requests.
Provide referral phone numbers or contact information for other services.
Complete property accounting documentation as required and maintain the property database
Complete and maintain a set of up-to-date standard operating instructions for the Helpdesk staff
Improve processes based on analysis of customer satisfaction surveys.

Service/ account initiation (new user), moves, adds, changes. Transition from / to other offices or organizations – capturing user data (including personal files, contacts, bookmarks, etc.) and transition to NOAA work environment, or capturing user data and sending to receiving (NOAA or non-NOAA) environment. Closing/de-activating accounts for exiting NOAA staff, and retaining mission information / rerouting communications (email, etc.) as directed.

**Technical Support – Customer location**

The contractor will perform technical support service at the customer locations. This may be at a NOAA campus, laboratory, office, or other NOAA staff or business location. These locations may be in facilities managed by NOAA, or a partner including but not limited to cooperative institute, university, business, hotel or conference center, other federal agency, state or local government, foreign government/foreign location, tribal government, or a personal residence.

Services include:

Hardware or software repair or installation

Hardware or software support including troubleshooting hardware related workstation problems, repairing system components, refurbishing and upgrading systems, resolving conflicts among hardware components, performing routine maintenance.

Resupply including adding paper to printer/copier, changing toner, etc.

Support property 100% touch inventory procedures including routine (annual property wall-to-wall inventory) and emergency events. Past events of this nature include laptop encryption, certain patches that did not apply to computers via automated means, battery recall. Some of these events are urgent and services must be performed immediately and without prior notice that requires work through non-business hours (evenings and weekends) for extended periods.

Providing technical recommendations for system upgrades and providing technical guidance as necessary.

Checking equipment or customer situations that can only be determined by in-person inspection.

Ensuring that the systems are reliable, operating, and configured properly.

Software support which includes troubleshooting and resolving application configuration problems, providing assistance in the use of the network-based core applications, identifying requirements and working closely with the technical expert/specialist support teams to properly configure applications.

Ad-hoc special projects, including network migrations and e-mail administration, large hardware/software installations, or equipment relocations.

Support office moves by uninstalling computers and reinstalling computers in different offices
Meeting / conference setup – including setting up equipment, operating equipment, packing, moving and storing equipment. Equipment can include all equipment types identified in this task order. Contractor may be requested to perform other services including conference planning, materials design/development, distributing conference materials, maintaining attendance lists, providing information and conference staff support services.

**Technical Support – Services**

Equipment moves – uninstall, pack, move, reinstall, test, turn over to customer

Acquisitions and logistical support including but not limited to:
Obtaining quotes
Research and recommend commercial technology products
Returning defective items (packaging, shipping support, tracking)
Receiving new or replacement items

Monitoring supply item usage and recommending resupply (toner, paper, cd/dvd rom, etc.)

User Training
Direct-to-customer IT support training activities
Provide ad-hoc one on one desktop training as appropriate
Develop training curriculums, provide tutoring and conduct classes
Keep abreast of state-of-the-art training technology
Analyze needs for training and recommend purchases of training materials as appropriate
Provide formal and informal hands-on training
Structure training, such as prepared classroom training
Informal training, such as brown bag seminars; drop-in unstructured training sessions
Quarterly, conduct formal training that focuses on raising the technical expertise of the users on one of the standard software systems
Conduct IT security awareness training

Graphics
Provide backup support in preparing presentations, graphics and automated forms creation and maintenance.
Support for PowerPoint presentations, word processing documents, and spreadsheets for presentation purposes.
Support for products which include business presentations and digital imaging (scanning, capture, enhancement, compression, conversion)

VTC Support

Manage the technical operation and scheduling of the Video Conferencing systems (VTC) including resolution of all connectivity issues with the various program organizations that communicate with NOAA. Maintain VTC files, provide remote technical support to other VTC sites, resolve technical issues. Manage multi-point VTC connection service (aka video bridge).

Development and implementation of scheduling procedures; development of maintenance procedures; development of network and hardware diagnostic procedures; and providing training as appropriate.

**Advanced Technical Support – Network services**

Contractor may be required to manage network services. This may be for large installations or smaller remote sites:

Install and maintain network servers, network hardware, computer network interfaces, servers, and cabling.
Maintain documentation on network changes, develop network plans and diagrams, and provide presentations on network topics.
Perform system administration functions on network servers
Assign and administer all user accounts and access privileges to specific areas of data and assure that security features are in place.
Establish and maintain secure configurations on equipment.

**Ad Hoc Services**

Because the contractor is relied upon by the Government as the focal point for end user support, the contractor shall respond to requests for services. Services supporting end users, end user equipment, end user software, end user IT security, or end user IT service activities are within scope. Contractor shall respond to these service requests as directed by the government.

**REFERENCE**

INVENTORY OF NOAA SOFTWARE SYSTEMS
Software on NOAA computers may include several thousand titles, the ones below are most common.

Microsoft Operating Systems up to Windows XP, Vista
Macintosh Operating Systems
Linux operating systems (all varieties)
Full Microsoft Office Suite
Microsoft Project
McAfee Anti-Virus Software (home and office)
(DOC) Time and Attendance
Netscape Navigator and Messenger
Firefox Browser
VirusScan
Oracle Collaboration Suite
Adobe
Winzip
Windows Server
Delrina FormFlow/ Perform Pro
Thunderbird NOAA e-mail client standard
Google Earth
Audio-video editing software

Identitech FYI
Oracle RDBMS
Data Direct Explorer
Misc. diagnostic software

INVENTORY OF TYPICAL NOAA HARDWARE SYSTEMS
Contractor will be expected to support all variety of end user hardware. The hardware below is most common.

PCs at Headquarters running Windows
PCs and workstations (primarily Sun, SGI, and HP) running Windows, Linux and Unix
MacIntosh systems
Copiers
Video conference systems
Audio-visual systems
Communications equipment (fax, etc.)
Personal printers
Network printers
Hand Held computers including Blackberries
Data acquisition devices

# ATTACHMENT K

# SAMPLE TASK ORDER 5

# INFORMATION SECURITY AND RISK MANAGEMENT COMPONENT

# Centralized Enterprise Certification & Accreditation Quality Assurance Capability and Certification Agent Services

## ATTACHMENT K: SAMPLE TASK ORDER 5 – CENTRALIZED ENTERPRISE CERTIFICATION & ACCREDITATION QUALITY ASSURANCE CAPABILITY AND CERTIFICATION AGENT SERVICES

### 1.0 Background

The Federal Information Security Management Act (FISMA) of 2002, P.L.107-347 requires that all Information Technology (IT) systems be certified and accredited. The Department of Commerce Chief Information Officer and the Office of the Inspector General have declared a material weakness in the Certification and Accreditation (C&A) of IT systems. In March 2005, the Department of Commerce mandated that all NOAA national critical systems and a number of other systems be certified and accredited. Completion of these mandates requires additional support for C&A activities and Penetration Testing/Vulnerability Scanning. C&A activities are required to complete both planned objectives and milestones identified by testing. Further, C&A activities are not a one time event, they include continuous activity to support and improve NOAA's IT Security process.

### 2.0 Objectives

The objective of this effort is to:
1) Centralize IT Security Service capabilities.
2) Provide Quality Assurance capabilities to C&A processes
3) Ensure complete objectivity and independence between the Certification Agent and the persons directly responsible for the development, the day-to-day operations of the system, and the maintenance of the C&A documentation.
4) Provide NOAA Line Offices and Staff Offices a one-stop-shop for Quality Assurance and be the Certification Agent for the agency.

### 3.0 Scope

Critical Infrastructure Protection and Information Assurance will support the scope of work identified in the description below:

The scope of this statement of work is limited to the task of Quality Assurance C&A documentation review for all NOAA Line Office and Staff Office systems and the task of acting as a centralized enterprise Certification Agent for any system accrediting official. The scope of this statement of work does not address the preparation of C&A documentation. The Contractor must have direct experience in performing configuration control testing, compliance monitoring, and project management and must be able to demonstrate the ability to meet rigorous quality assurance requirements.

The Contractor must demonstrate the ability to provide support in the following areas:

a. C&A task event schedule planning and management – including schedule development, compliance monitoring and reviews along with process definition;
b. Establish and maintain a high level of quality assurance in documentation such as consistent use of C&A templates and formatting with minimal grammatical, spelling or factual errors.
c. Establish compliance review checklists that mirror DOC "Smart Spot Check" templates;
d. C&A metric performance tracking/reporting – C&A metric performance tracking/reporting must address progress in meeting C&A deadlines, and periodic compliance reviews, and progress for corrective actions;
e. The use of training and standardization of reporting processes and refresher training on meeting NIST and DOC requirements;
f. Working knowledge with a FISMA automation tool.
g. The cost advantage realized by centralizing all independent C&A support services under the OCIO;

Critical components

- Centralization and consolidation of Quality Assurance Capabilities and System Certification Testing Capabilities within the NOAA OCIO/IT Security Office.
- Centralized Quality Assurance review to ensure submitted C&A packages, the core security documents and associated artifacts are compliant with NIST, DOC and NOAA policies and guidelines. The Contractor shall perform C&A quality assurance review activities for NOAA Line Offices and Staff Offices for the all related C&A documents. A small representative set of example documents include, but not exclusive:
    - System Security Plan

  - System Risk Assessment Results
  - System Continuous Monitoring Test Plan
  - System Continuous Monitoring Test Result Report
  - Configuration Management Plan
  - System Contingency Plan and Test Plan
  - Contingency Plan Test Results Report
  - Certification and Accreditation Letters
- NOAA OCIO will offer to the Line Office IT Security Officers the ability to use a centralized System Certification Testing services. The Certification service will provide discovery and assessment of its findings. Activities are represented by the following.
  - Prepare vulnerability scanning or penetration testing Rules of Engagement (ROE) Agreement between OCIO and the system owner.
  - Schedule and conduct vulnerability scanning or penetration testing
  - Conduct System Security Test & Evaluation (ST&E):
    - Prepare and finalize ST&E Report,
    - Prepare and finalize ST&E system vulnerability test results report which will include the vulnerability scanning and penetration test results,
    - Conduct Annual Security Assessment Security controls testing CA-7 (NIST SP 800-53 Rev 1),
    - Prepare and finalize the Annual Security Assessment Report and Test results,
  - Penetration Testing as required for moderate or high systems:
    - Conduct internal Penetration Testing
    - Conduct external Penetration Testing
  - Produce and present a final Security Assessment Report (SAR)
    - Prepare and finalize the Annual Security Assessment Report and Test Results
    - Prepare inputs to the Plans of Action and Milestone (POA&M)
  - Produce and present an assessment of the Common Controls shared at a Line Office level and at a NOAA level.

**4.0 Specific Tasks**

**4.1 Task Planning and Management**

The Contractor will meet with NOAA within five (5) business days from the date the task order is awarded under this contract to conduct a kickoff meeting. At the kickoff meeting, the Contractor will present a project plan ("straw man") in Microsoft Project. Within two (2) business days of the kickoff meeting, the contractor will provide NOAA a baseline Project Plan.

The Contractor will conduct weekly meetings with the NOAA C&A Task Monitor and other members, as required, to discuss C&A activities (scheduling, ST&E progress, penetration testing, C&A review coordination, issues, metric and progress) along with status of C&A template development. The contractor will document the results of the meetings. The meeting report will include status, points of discussion, issues, resolutions, and action items. The frequency of meetings will be detailed in the task order under this contract and verified at the kickoff meeting. The contractor will conduct ad hoc meetings, as required, to discuss issues identified by either NOAA or the contractor.

a) Task 1.0 Centralized Enterprise Quality Assurance Capability

Total objectivity must be maintained between the contractor who will perform the actions under this task and the actions under the second task. Therefore, the Contractor awarded this particular task shall not be concurrently awarded the second task nor will be affiliated with the Contractor of the second task.

(i) Task 1.1 – Task Order Document Management

The Contractor shall develop and mature a process to centrally manage and maintain all Certification and Accreditation (C&A) documentation and associated artifacts for all Line Office and Staff Office systems. Proper security labeling of all documentation shall be followed. Each processes shall be documented in both narrative and flowchart fashion.

(ii) Task 1.2 – Cyber Security Assessment and Management (CSAM) Support

The Contractor shall be the data custodian for the CSAM database for NOAA systems. This responsibility is to ensure that NOAA system owners submits the required C&A documentation into the CSAM database on time and in the correct format. Once the CSAM application is operational, the Contractor shall develop a schedule for each system owner to complete this task. The Contractor shall be the subject matter expert for operating and maintaining the CSAM database and application.

(iii) Task 1.3 - C&A Quality Assurance Support

The Contractor will review the entire Certification and Accreditation (C&A) package and ensure completeness, correctness, and consistency against DOC, NIST and NOAA standards. The Contractor will document all deficiencies and conduct a review briefing with NOAA, Line Office / Staff Office ITSO and System Owners to discuss the review findings. Review findings are to be mitigated by System Owners and returned to the Contractor for compliance inspection. The NOAA C&A Task Monitor will provide the contractor with a list of systems to be reviewed and prioritize what packages are required for review and forwarding to DOC.

- Separation of Duties

  In support of the security certification process, security certification requires an independent assessment of a system's security controls. Under no circumstance shall the individual acting as a Quality Assurance (QA) analyst or the Certification Agent, be the same individual who is, was or will be involved in the preparation of the C&A package. The QA analyst and the Certification agent shall not be involved with the mitigation of the findings or be involved in Disaster Recovery or Continuity of Operations activity.

(iv) Task 1.4 – Develop C&A Compliance Review Checklist

The contractor will develop and implement compliance review checklists that mirror the templates created using NIST, DOC and NOAA guidance. The checklists will be used to monitor and track non-compliant security documents and C&A Packages.

(v) Task 1.5 – Conduct Compliance Review on C&A Packages & Core Security Documents

Based on NIST, DOC and NOAA-specific guidance, process and related documentation, the Contractor shall review and validate C&A packages, which include the following component documents:

- System Security Plan
- FIPS 199 Criticality Assessment
- System Risk Assessment
- Configuration Management Plan
- System Rules of Engagement Agreement
- System Contingency Plan (CP), BIA and CP Test Result Report
- System Continuous Monitoring Test Results Report
- Incident Response Plan
- Security Training Awareness Plan
- System Security Test & Evaluation (ST&E) Report
- Update System Security Plan and Risk Assessment to reflect ST&E
- Security Assessment Report (SAR)
- Privacy Impact Assessment (PIA) and/or Privacy Threshold Analysis (PTA)
- The Plans of Action and Milestones (POA&M)
- System Certifier's letter to the DAA listing significant risks
- System Accreditation Letter
- Common Controls Testing
- Secure Configuration Implementation

The Contractor shall brief review findings with the NOAA OCIO prior to briefing Line Office system owners. At that time, the system owner will have a chance to discuss findings for clarification and/or correction. The Contractor will conduct a final review to assure comments have been addressed and incorporated into the final C&A package and the C&A package is considered compliant for NOAA CIO Office final approval.

(vi) Task 1.6 – Develop Corrective Actions for C&A Documentation and Process

The Contractor shall develop recommendations to correct C&A documentation and process deficiencies discovered in the reviewed packages. In the initial review briefing, the Contractor shall clearly illustrate a way forward in improving the C&A package and processes. The Contractor shall follow the progress of the improvement process and offer course corrections to help the system owner achieve the desired goals and close the POA&M item.

(vii) Task 1.7 – C&A Performance Metric Tracking/Reporting

The Contractor shall prepare C&A performance metrics to track and report weekly, monthly, and quarterly progress of C&A activities. The contractor is expected to collect reporting data to establish an accurate reporting process. Metrics should include, but not limited to, the following reports: Current State of C&A activity, FY progress for C&A/Continuous monitoring system, FISMA Documents Progress, annual state and corrective action status by system and costing for Exhibit 300 purposes. Some reports can be developed as graphical views with supportive data collection/analysis to describe the report outcome. In addition to tracking C&A performance metrics, the contractor shall develop and/or recommend an automated tracking tool for data collection and reporting. The tool must utilize Relational database technology and able to interface with the NOAA Enterprise messaging system (Microsoft Mozilla Thunderbird). The automated tracking tool will also track C&A compliance reviews, and the C&A documentation being submitted for review. The tracking tool must be able to provide notification to the submitter of review completion. The compliance review process will utilize the database to store and retrieve and maintain compliance review templates.

(viii) Task 1.8 - Develop C&A Core Security Document Templates

The C&A process must follow the practices and requirements that NOAA has provided for conducting C&A activities. The Contractor shall not be responsible for providing the information needed for each template. The guidance is to use the C&A methodology to verify security measures are in place and adequately protect the system. The Contractor will develop and implement standardized templates, based on NIST and DOC requirements to improve the C&A process across the NOAA line offices. The templates to be developed are as follows:

- System Security Plan (SSP) Template
- System Risk Assessment Template
- System Contingency Plan (CP) and CP Test Result Report Template
- System Security Test & Evaluation (ST&E) Template
- Vulnerability Identification Template
- Security Assessment Report Template
- C&A Package Template
- Incident Response Plan Template
- Configuration Management Plan Template
- Vulnerability / Penetration Test Rules of Engagement (ROE) Template
- Penetration Test Result Report Template
- Privacy Impact Assessment Template
- FIPS 199, Standards for Security Categorization of Federal Information and Information Systems Template
- System Accreditation Letter Template.

The SSP, CP, CP Test Results, the Configuration Management Plan, the ROE, and the System Accreditation Letter templates will require a signature page as a part of the template format. Upon the completion of a review, all signature pages must be signed by the System Owner.

b) Task 2.0 Centralized Enterprise Certification Agent

Total objectivity must be maintained between the contractor who will perform the actions under this task and the actions under the first task. Therefore, the Contractor awarded this particular contract shall separate their personnel into two teams. Team 1 works on Task 01 and team 2 works on Task 02. The contractor shall maintain two separate teams for the life of this contract. The team members designated for team 1, Task 01 can not perform work on Task 02 and vise versa. Each task requires a Project Manager to handle work distribution and management. The Project Managers will report to the Task Monitor as outlined in task 5.5. During the life of the contract, the

contractor shall comply with all applicable certifications that qualify the company to provide security assessment services for federal agencies under the NIST FISMA Implementation Project Phase II: Organizational Credentialing Program when the certification becomes available.[1]

(i) Task 2.1 – Preparation of the Security Test and Evaluation Plan

For assessing the minimum security controls, the Contractor will create a Security Test and Evaluation (ST&E) plan in accordance with NIST SP 800-42, *Guidelines on Network Security Testing* and other applicable guidance. The Contractor shall establish a security testing approach, establish the IT system security objectives to be tested, and develop test scenarios for conducting the controls being tested in coordination with the system owner. Specific tests will be based on the selected security controls previously identified and documented by NOAA and verified by the Contractor. The ST&E Plan will:

- Provide a complete process for testing the systems;
- Address each unique operating system identified in the system boundary;
- Be conducted in accordance with NIST SP 800-53 Rev 1 and consistent with NIST 800-53A third DRAFT testing guidance;
- Include rationale for Test Strategy, including any decisions to test less than 100% of the system or 100% of the controls;
- Describe ST&E Security Control Testing for each applicable Security Control listed in NIST SP800-53 Rev 1 as per a "High", "Moderate" and "Low" Security Categorization baseline to include:
    - Testing Objectives
    - Testing Procedures
    - Testing Expectations
    - Testing Findings and Results
    - Recommendation

(ii) Task 2.2 – Certification Support

This task focuses on the correct implementation by a system owner of the NIST Special Publication 800-53 rev.1 controls required for a system based on FIPS 199 and FIPS 200 categorization of the system. The objectives of this task are to:

- Verify the IT system certification level required for certification and accreditation and testing
- Demonstrate through NIST SP 800-53A verification techniques, verification procedures, and procedure refinements (as needed), that the management, operational, and security controls for the IT system are implemented correctly and are effective.
- Prepare the final Annual Security Assessment Reports based on the results of the testing activities.
- Assist the system owner in developing a realistic Plans of Action and Milestone (POA&M) according to OMB guidance.
- Track and report progress of POA&M items for all NOAA Line Office and Staff Office systems.

The Contractor will test the NOAA Line Office system at the required Security Certification Level in accordance with NIST SP 800-37. The common control and certification testing will include activities at the low, moderate, or high level in accordance with FIPS 199, FIPS 200, and NIST SP 800-37 and the IT system certification level, as appropriate. Certification testing activities will include federal and industry available tools for technical security control test objectives and verification techniques such as personnel interviews, documentation reviews, observations, inspections and demonstrations. The Security Controls Testing and Evaluation Report will include:

- Findings and Results Analysis Statement
- Analysis Determinations
- Remediation Recommendations
- Impact to the system should the remediation not be implemented
- The raw output from any automated tools used to test the devices

The Security Controls Testing and Evaluation Report will show traceability of security requirements from the NOAA Line Office system documented security requirements to test case and test results. The

[1] http://csrc.nist.gov/groups/SMA/fisma/overview.html

Contractor will meet with NOAA OCIO and person that will monitor the testing to discuss the initial findings of the Security Controls Testing and the Security Control Testing Report.

(iii) Task 2.3 – Accreditation Support: Conducting and analyzing the results of the ST&E

The Contractor will support the NOAA Line Office in the following areas:

- Prepare for ST&E
- Analyze Results – Identify findings or discrepancies in relation to IT system (Category I, II, III, IV), determine findings or discrepancy resolutions to ensure needed corrections and regression testing is performed
- Prepare the ST&E Report
- Coordinate Results with System Owner
- Update ST&E Report
- Update C&A package documents

Prior to completing the ST&E plan, the Contractor will review the current Security Requirements Traceability Matrix (SRTM) developed by NOAA in accordance with FIPS 200 and NIST SP 800-53 Rev 1 for tailoring. The Contractor will meet with NOAA to make any recommendations for changes to the SRTM. The meeting and all decisions will be documented in the meeting notes.

The Contractor will assist the NOAA in preparing updates to documents which may include but not be limited to Risk Assessment POA&M, and System Security Plan. The level of assistance will be designated in the task order. The level of assistance can include review of required updates with NOAA, preparation of all updates and changes needed as a result of ST&E.

The Contractor will review the complete system C&A package as part of a Certification determination and recommendation to the Accrediting Official for compliance. The Contractor will review for completeness, correctness, and consistency with DOC and NOAA policy and will document all findings.

(iv) Task 2.4 – Conduct ST&E: System Security Auditing

The Contractor will conduct a System Security Audit as a part of a Corrective Action Process. The System Security audit for the NOAA Line Office Systems will be conducted in accordance with NIST 800-37 and will be tailored to the System level (low, medium, high) and the required level of certification testing based on the FIPS 199 evaluation of the system proposed for test.

Under this task, the Contractor will audit the NOAA Line Office System and provide the results of security audit to the requesting NOAA Line Office. This task does not include the conducting of vulnerability scanning or penetration testing. Under this task, the Contractor shall review the results of existing vulnerability assessments and penetration tests, POA&M'ed items and report the status of each vulnerability identified in the Vulnerability Assessment Report. The Contractor shall identify vulnerabilities which will require an enterprise solution and make recommendations needed to close the documented vulnerability. The format of the Security Audit Report will be appropriate for a C&A package submission in accordance with NIST 800-37 and DOC guidelines and requirements.

NOTE: The Contractor shall not be responsible for conducting Disaster Recovery or Continuity of Operations exercises. The Contractor shall be responsible for validating if the Disaster Recovery or Continuity of Operation exercise was performed and to be able to substantiate the dates with the appropriate artifacts.

(v) Task 2.5 – Conduct System Penetration Testing

The Contractor shall plan, coordinate, and conduct formal penetration testing for NOAA's systems. The Contractor shall generate formal reports on the results of this testing, and present the results at a formal briefing for each system tested. The Contractor shall eliminate any false positive vulnerability from the report. The Contractor shall identify all repeat findings on the report.

The following paragraphs described how the Contractor shall conduct the System Penetration Testing Task. Penetration testing will be conducted externally and internally. The external tests will be conducted from a specified Contractor static IP address located in the Contractor's facility. The internal testing will be

conducted from the point of view of an insider. In this case, the insider will be defined as an NOAA employee with no special privileges beyond normal user access.

- External Penetration Testing

  External testing shall be performed to identify potential vulnerabilities visible from the Internet. In the first step of this process, network scans shall be conducted to determine what systems are accessible from the point of view of the attackers. Since this test shall be conducted from outside the NOAA network, this step would enable the testers to determine what systems the border firewall allows external users to connect to the Internet.

  Depending on the type and settings of the firewall this may require several different scanning techniques to be used in order to correctly determine the total set of systems that is accessible beyond the firewall. In the next step, port scanning shall be conducted to determine the services that are accessible on responding systems. Similar to host scanning, various techniques may be needed to correctly determine the set of services that are running on the target systems. From these two initial steps, an initial set of likely targets shall be identified. This results in an initial focus group of systems against which to perform exploitation testing in the next phase. During the rest of the penetration testing, the following shall be accomplished:
  - Determine firewall rules through testing
  - Conduct automated and manual network vulnerability discovery to determine the potential exploits paths into the target network.
  - Detect and monitor the way applications use the network where feasible
  - Enumerate the network by searching public databases, web sites, and news groups; querying Domain Name Service (DNS) servers; querying InterNIC records and conducting host and services scans of the ACP network.
  - Identify potential vulnerabilities by analyzing the collected network enumeration data (DNS, public services information, etc.) and/or executing vulnerability scans using commercial tools against the target set.
  - Develop an initial target set of systems on which to focus vulnerability analysis. Since this test is directed at the security infrastructure targets will be limited to:
    - External Servers (public web servers, hosted services)
    - Perimeter Devices (Firewalls, Routers, Switches)
    - Authentication Servers (certificate, dial-up, wireless)
    - DMZ Servers (i.e. email, web server, DNS Servers)

- Internal Penetration Testing

The internal testing process shall be very similar to the external analysis. The primary difference being that the work is conducted from internal NOAA network as an identified user. The test team will work with the NOAA Line Office IT Security Officer (LO ITSO) to determine what information about the organization and its systems would be typical for an average employee to have obtained. The team will also be granted accounts on NOAA systems that would be appropriate for an average employee.

The test team will use techniques such as port scanning to analyze the TCP/IP "fingerprint" of accessible hosts in order to identify the Operating System (OS), system hardware/software running and network services that are running on accessible hosts. Subsequent actions will involve more intensive vulnerability scanning against the target set to identify any vulnerabilities or mis-configurations. Examples of types of vulnerabilities the test team will search for include:
- User Accounts with weak passwords
- Existence of manufactures system accounts with default passwords
- Vulnerable CGI and other dynamic web server applets
- Remote Procedure Call (RPC) vulnerabilities
- Name server (bind) buffer overflow and cache poising problems.
- SENDMAIL and other SMTP based vulnerabilities
- IMAP and POP3 vulnerabilities
- Global file sharing with Network File System (NFS), Windows System Message Block (SMP), or AppleShare
- Simple Network Management Protocol (SNMP) mis-configurations

(vi) Task 2.6 – Penetration Test Deliverables

The following deliverables for each system shall be provided to the NOAA provided POC's in support of this task:

- A Draft Penetration Testing Plan (PTP) detailing the suggested testing approach
- A Final Approved Penetration Testing Plan (PTP) detailing the overall testing approach
- An Approved Test Procedure (TP) for each system to undergo testing
- An Approved Rules of Engagement (ROE) for the Penetrations Testing
- A Final Penetration Test and Recommended Remediation Report (PTR) for each system tested.
    - Final penetration test results shall include a device level inventory in excel format for all detected devices. The format for the inventory is attached.
- In addition the contractor shall conduct:
    - A formal in-brief for each system tested
    - A formal out-brief for each system tested, summarizing to the NOAA POCs and Office/Center the results of the test and recommending remedial actions.

(vii) Task 2.7 – Test Conditions and Rules of Engagement

The Rules of Engagement for system penetration testing will be established at the task kick off meeting and documented in the Kick off Meeting Notes. The Rules of Engagement (ROE) will be signed by authorized representatives of NOAA and the Contractor before penetration testing begins for a NOAA system. Any changes to the rules of ROE will require an updated, signed ROE.

The Rules of Engagement shall contain the following elements:

- Introduction
- Purpose
- Test objective
- Scope
- Testing methodology
    - Vulnerability assessment testing
    - Automated vulnerability assessment tools
    - Basic vulnerability assessment methodology
    - Vulnerability types examined
    - Test plan
    - Mapping the network/system being tested
    - Scanning the network for any weakness or vulnerability
- Exploitation of weaknesses and vulnerabilities
- Scope of notification
- Testing safeguards
- Information required prior to testing
- What the security testing may include
- What the security testing will not include
- Limitation of liability

The Contractor will conduct Internal and External Penetration Testing, as determined in the kick off meeting and documented in the ROE. The client may elect to observe during the external and internal penetration testing. Testing Hours for penetration testing will be established at the kick off meeting and documented in the ROE.

The Line Office IT Security Officer (LO ITSO) will provide a list of target (primary goal) machines. They will include, at a minimum but not exclusive, the following:

- External Servers (public web servers, hosted services)
- Perimeter Devices (Firewalls, Routers, Switches)
- Authentication Servers (certificate, dial-up, wireless)
- DMZ Servers (i.e. email, web servers, DNS Servers)

It will be the test team's goal to gain access on the goal hosts. The Contractor test team shall need to work with the LO ITSO and system owner to determine which network ranges are to be considered part of the valid target set. Networks that are attached to a NOAA network but are not under the control of NOAA -

such as contractor or other government networks cannot be considered as part of the valid test set. Additionally, the LO ITSO should indicate any additional systems that are to be considered off limits for testing purposes.

No testing activities will be conducted without prior approval of the LO ITSO and system owner. The NOAA Computer Incident Response Team (N-CIRT) must be formally notified at least 48 hours prior to testing.

Testing shall be performed against live NOAA systems, including servers and workstations connected to the sites' networks and system infrastructure. Testing will primarily be performed during the testing hours outlined above; however, some scanning and penetration efforts may be set up to automatically operate during non-working hours to prevent interference with day to day operations. General testing should not affect normal network or host operations. Any tests that may negatively affect network or host performance will not be conducted without the written permission of the LO ITSO and the system owner. Testing will include denial of service and buffer overflow attacks. No NOAA information or data shall be modified, altered, deleted or changed in any way as a result of a successful access or penetration by the contractor.

Should the test team succeed at penetrating a system, the LO ITSO will be notified and evaluation of the penetrated system will be suspended until approval has been granted by the LO ITSO to continue.

At any point during the testing, the LO ITSO or designated personnel can command a pause or termination of the test. Should the tests be terminated, the test team will document the rationale given by the LO ITSO for the termination including a description of the potential adverse consequences that might have occurred were the test to be continued.

- Limitations of Penetration Test Activities

The network mapping activities will be limited to the valid address ranges provided by the ITSOs. In no case will potentially dangerous or damaging scanning or attacks be run against the networks or against individual computers. Two of these potential attack types include:

- ***Denial of Service (DoS) Attacks*** - Vulnerability scanning may identify a host that is susceptible to an attack that could cause the target host to crash or be otherwise unavailable.
- ***Buffer Overflow Attacks*** - Vulnerability scanning may identify a host that is susceptible to buffer overflow attacks. These systems will be recorded, but no buffer overflow attacks will be conducted.

The main purpose of the penetration test team is to identify weaknesses. The test team may identify potential targets for exploitation and develop basic attack strategies. In all cases there shall be no exploitation without the express permission of the LO ITSO. System or configuration files will not be modified to test potential vulnerabilities detected by the scans. Executable files shall not be installed or executed on any computer. Key loggers shall be installed or executed on any computer.

Additional limits to penetration testing will be established as needed at the task kick off meeting and documented in the kick-off meeting notes.

(viii) Task 2.8 – Certification Findings

The Contractor shall review the complete system C&A package as part of a Certification determination and recommend changes to the POA&M to the Accrediting Official. The contractor shall review for completeness, correctness, and consistency with DOC and NOAA policies. The Contractor shall document all findings

- Prepare POA&M inputs
- Update Risk Assessment based on ST&E
- Based on ST&E and Final Risk Assessment, update the security plan
- Prepare the final certification findings and assemble the final certification package

(ix) Task 2.9 – Training & Standardization

The Contractor will provide training and refresher training (as applicable) for NOAA staff on C&A review process and packages. This training emphasizes the use of standardized reporting processes and templates that improve the overall consistency of the C&A of NOAA line office systems. The Contractor will provide training on NIST, Department of Commerce, and NOAA policy as required. Refresher training is to be provided on all new NIST, DOC, and NOAA policies. Training sessions on lessons learned will be provided as part of the execution of all POA&M items.

- Task 1 - Contract-Level and Task Order (TO) Management
    - Subtask 1 – Contract-Level Program Management
        - TO Project Management

The Contractor shall manage tasks, projects, or programs assigned by the NOAA C&A Task Monitor to ensure that the contracting staff completes the work in a timely manor. The Contractor shall be responsible for documenting tasks, managing the staff, and communicating with the NOAA C&A Task Monitor on resource leveling and ensuring the correct staff meets the goals and objectives of any of the tasks listed. The Contractor shall manage projects utilizing the project management tools provided by NOAA. The Contractor shall use Earned Value Management (EVM) methodologies and shall report progress on all project milestones using EVM metrics.

The Contractor shall provide a point of contact to plan and manage tasks and resources to meet project schedules. The point of contact shall be responsible for activities including, but not limited to:

- Receiving work requests from the NOAA C&A Task Monitor;
- Clarifying the scope of work requests with the NOAA C&A Task Monitor;
- Estimating the resources and time required to complete the work;
- Obtaining approval from the NOAA C&A Task Monitor to start work;
- Allocating work to Contractor staff;
- Preparing and maintaining project work plans;
- Identifying and resolving all project related technical and managerial issues;
- Reporting on the progress of performed work and on the use of staff resources;
- Preparing and delivering consolidated status reports, documenting the status of activities, providing EVM metrics, issues for NOAA attention, hours worked, dollars expended on a per task or project basis; and
- Obtaining NOAA C&A Task Monitor sign off on deliverables.

- Definitions
    - Certification Agent[2]

The certification agent is an individual, group, or organization such as the NOAA OCIO IT Security Office, responsible for conducting a security certification, or comprehensive assessment of the management, operational, and technical security controls in an information system to determine the extent to which the controls are implemented correctly, operating as intended, and producing the desired outcome with respect to meeting the security requirements for the system. The certification agent also provides recommended corrective actions to reduce or eliminate vulnerabilities in the information system.

Prior to initiating the security assessment activities that are a part of the certification process, the certification agent provides an independent assessment of the system security plan to ensure the plan provides a set of security controls for the information system that is adequate to meet all applicable security requirements. NOAA interprets this assessment of the Certification and Accreditation documentation as a Quality Assurance function.

[2] Adopted from NIST Special Publication (SP) 800-37 Guide for the Security Certification and Accreditation of Federal Information Systems

To preserve the impartial and unbiased nature of the security certification, the certification agent shall be in a position that is independent from the persons directly responsible for the development and day-to-day operation of the information system, and for mitigating the findings identified during the security certification. The independence of the certification agent is an important factor in assessing the credibility of the security assessment results and ensuring the authorizing official receives the most objective information possible in order to make an informed, risk-based, accreditation decision. To address the diversity of security categories across all NOAA systems, we will enforce the highest degree of independence between the two tasks defined in this SOW. No one contractor, or its affiliates, will be concurrently awarded both tasks.

- Subtask 2 - Task Order Management

Certification and Accreditation experience must be a core competency of the contractor and, the contractor must demonstrate a well-skilled understanding and implementation of the requirements associated with the NIST Special Publication (SP) 800-37 Guide for the Security Certification and Accreditation of Federal Information Systems, the NIST SP 800-53 Rev 2, Recommended Security Controls for Federal Information Systems, and the FIPS 199, Standards for Security Categorization of Federal Information and Information Systems. These three key documents, coupled with a suite of NIST special publications and FIPS documents, are the basis for defining security categories for federal information systems according to impact levels for confidentiality, integrity, availability; identifying recommended minimum security requirements; selecting appropriate security controls that should be documented in the System Security Plan (SSP), and continuously monitoring and testing for compliance.

The Contractor shall manage tasks, projects, or programs assigned by the NOAA C&A Task Monitor to ensure that the contracting staff completes the work in a timely manor. The Contractor shall be responsible for documenting tasks, managing the staff, and communicating with the NOAA C&A Task Monitor on resource leveling and ensuring the correct staff meets the goals and objectives of any of the tasks listed. The Contractor shall manage projects utilizing the project management tools provided by NOAA. The Contractor shall use Earned Value Management (EVM) methodologies and shall report progress on all project milestones using EVM metrics.

The Contractor shall provide a point of contact to plan and manage tasks and resources to meet project schedules. The point of contact shall be responsible for activities including, but not limited to:

- Receiving work requests from the NOAA C&A Task Monitor;
- Clarifying the scope of work requests with the NOAA C&A Task Monitor;
- Estimating the resources and time required to complete the work;
- Obtaining approval from the NOAA C&A Task Monitor to start work;
- Allocating work to Contractor staff;
- Preparing and maintaining project work plans;
- Identifying and resolving all project related technical and managerial issues;
- Reporting on the progress of performed work and on the use of staff resources;
- Preparing and delivering consolidated status reports, documenting the status of activities, providing EVM metrics, issues for NOAA attention, hours worked, dollars expended on a per task or project basis; and Obtaining NOAA C&A Task Monitor sign off on deliverables.

**5.0 Place of Performance**

Work hours shall be (Monday-Friday) 5 days a week and some Government holidays. The majority of the work will be performed at the NOAA facilities located at the following address:

NOAA Office of the Chief Information Officer
1315 East West Highway, SSMC3
Silver Spring, MD 20910

**6.0 Period of Performance**

The period of performance is from date of award through 12 months and one option year of 12 months.

**7.0 Cost and Schedule Control**

The Contractor shall provide evidence of cost controls and schedule controls to be used on this project. The Contractor shall provide a plan to communicate status on both project deliverables and project financials on a regular basis using both formal and informal means.

**8.0 Communication**

The Contractor shall communicate, coordinate and interact with NOAA OCIO personnel and other NOAA Line Office / Staff Office contractors as necessary in the execution of the work under this task order. Contractor staff shall attend scheduled and occasional ad hoc status meetings, requirements analysis meetings, project planning and management meetings, technical problem resolution meetings, and other such gatherings to fulfill the communication requirements of tasks. Contractor shall provide timely information such as status of work efforts, issues or impediments to successful completion of work, accomplishments, and suggestions for improvements.

**9.0 Emergency Action**

The contractor shall take corrective action as necessary and provide immediate remediation for all operational, technical and management emergencies. The contractor may work closely with NOAA staff for all data call collection, analysis and reporting. Corrective actions shall be documented. In the case of when the government is closed due to emergency situations, the Contractor is expected to be available (via telecommuting) to continue performing required services.

**10.0 Deliverables**

- Schedules/Milestones

The Contractor shall maintain a project schedule showing planned progress and progress to date. The schedule shall be included in the monthly progress report. A master C&A life cycle schedule shall be maintained for the OCIO addressing all NOAA systems.

- Deliverables for Project Management

- NOAA requires the following deliverables from the Contractor in order to monitor progress and ensure compliance:
  - Weekly Progress Report — Weekly
  - Work Breakdown Structure Schedule — Bi-weekly
  - Meeting Summaries — as required
  - Miscellaneous technical correspondence — as required

**11.0 Deliverables for Centralized Enterprise Quality Assurance Capability**

Table 2 – Task 1.0 and associated Deliverables

| Task | Task Name | Deliverable | Schedule |
|---|---|---|---|
| 1.0 | Centralized Enterprise Quality Assurance Capability | | Days are "work" days and does not include holidays. |
| 1.1 | Document Management | Document Management Processes are documented and illustrated with flowcharts. | As required |
| 1.2 | CSAM Support | Schedule for when NOAA C&A documentation and artifacts for each system is entered in the CSAM database. | Schedule for each system is developed within 30 days of CSAM implementation. |
| 1.3 | C&A Quality Assurance Support | Comprehensive Project Plan Schedule to review C&A documentation for all NOAA systems | 30 days after award start date |
| 1.4 | Develop C&A Compliance Review Checklist | Develop and implement compliance review checklists that mirror DOC and NOAA Guidance | 10 days after award start date |
| 1.5 | Conduct Compliance Review | Review report (Word Document) and | Review Report to System |

| Task | Task Name | Deliverable | Schedule |
|---|---|---|---|
| | on C&A Packages and Core Security Documents | briefing presentation (PowerPoint) per system. | Owner & NOAA OCIO 10 days after each formal system review. System Owner & NOAA OCIO C&A Package briefing 20 days after formal review. |
| 1.6 | Develop Corrective Actions for C&A Documentation and Processes | To be included in deliverable for Task 1.3. | To be included in deliverable for Task 1.3. |
| 1.7 | C&A Performance Metric Tracking and Reporting.<br><br>A C&A Automated Tracking Tool. | Status report (Word Document) and briefing presentation (PowerPoint).<br>An automated tracking tool to store, manage, track and report C&A Performance Metric and Compliance Reviews. | C&A Performance Metric Monthly<br>C&A Compliance Review tracking - Daily |
| 1.8 | Develop C&A Core Security Document Templates | Templates as discussed under section 4.2.6 | 30 days after award start date |

**12.0 Deliverables for Centralized Enterprise Certification Agent**

Table 3 – Task 2.0 and associated Deliverables

| Task | Task Name | Deliverable | Schedule |
|---|---|---|---|
| 2.0 | Centralized Enterprise Certification Agent | | Days are "work" days and does not include holidays. |
| 2.1 | Preparation of the Controls Testing / Security Test and Evaluation (ST&E) Plan | ST&E Plan (MS Word document) per system. | 5 days after kick-off meeting with each System Owner. |
| 2.2 | Certification Support | ST&E Final Report (MS Word document) per system. | 10 days after ST&E review completion |
| 2.3 | Conduct and Analyze the Results of the ST&E | Analysis to be included in deliverable for Task 2.2. | 10 days after ST&E review completion |
| 2.4 | System Security Auditing | System Security Audit Report (MS Word document) per system. The SAR is included in Task 2.2 | 10 days after ST&E review completion |
| 2.5 | Conduct Penetration Testing | Penetration Internal/External Test Results Report (MS Word document) per system. The Penetration Test results is included in Task 2.8 | 10 days after ST&E review completion |
| 2.6 | Penetration Test Deliverables | Signed PTP, TP, ROE documentation (MS Word document). Conduct briefing (PowerPoint) for system owner | 20 days before Penetration Test event |
| 2.7 | Rules of Engagement | ROE to be included in Task 2.6 | 20 days before Penetration Test event |
| 2.8 | Update POA&M | POA&M Inputs (Excel Spreadsheet) | 10 days after test event |
| 2.9 | Training & Standardization | Reporting templates | 45 days delivery of the entire C&A Package |

**13.0 Security**

The Contractor shall guarantee strict confidentiality of the information/data that it is provided by the Government during the performance of the task order. The Government has determined that the information/data that the Contractor will be provided during the performance of the task order is of a sensitive nature.

Disclosure of the information/data, in whole or in part, by the Contractor can only be made after the Contractor receives prior written approval from the Contracting Officer. Whenever the Contractor is uncertain with regard to the proper handling of information/data under the contract, the Contractor shall obtain a written determination from the Contracting Officer.

Constraint

This Statement of Work (SOW) requires the contractor to (1) develop, (2) have the ability to access, or (3) host and/or maintain a Federal information system(s). Pursuant to Federal and HHS Information Security Program Policies, the contractor and any subcontractor performing under this task order shall comply with the following requirements:

**14.0 Applicable Document(s)**

Federal Information Security Management Act of 2002 (FISMA), Title III, E-Government Act of 2002, Pub. L. No. 107-347 (Dec. 17, 2002); **http://csrc.nist.gov/policies/FISMA-final.pdf**.

**15.0 Government Furnished Equipment (GFE)/ Government Furnished Information (GFI)**

NOAA shall provide all computer equipment and data storage devices, work space, facility and NOAA documentation, for the duration of the engagement. The Contractor shall not use any contractor owned or personally owned computer equipment or data storage devices.

**16.0 Packaging, Packing, and Shipping Instructions**

The contractor shall ensure that all items are preserved, packaged, packed and marked in accordance with best commercial practices to meet the packing requirements of the carrier and to ensure safe and timely delivery at the intended destination. All data and correspondence submitted shall reference:

1. The CIO-SP2*i* Task Order Authorization Number
2. The NITAAC Tracking Number
3. National Oceanic and Atmospheric Administration (NOAA) OCIO, IT Security Program

**17.0 Containers shall be clearly marked as follows:**

1. Name of contractor
2. The CIO-SP2*i* Task Order Authorization Number
3. The NITAAC Tracking Number
4. Description of items contained therein
5. Consignee(s) name and address

**18.0 Performance Measures and Acceptance Criteria**

The contractor shall be evaluated annually in accordance with the Standard Matrix included in Table 4 below. The Objective of this plan is to encourage and maintain high standards of performance. The work products of project personnel shall be reviewed bi-weekly and revisions will be made as necessary. The C&A Project Manager will have 15 working days to review the deliverables submitted and make comments and/or changes. If changes are necessary, the contractor will have 15 working days to make the necessary changes and return the final deliverables to the C&A Project Manager. Upon receipt of the final deliverables, the C&A Project Manager will have 30 days for final review prior to acceptance or to provide documented reasons for rejection.

Table 4 – Project Management Performance Measures and Acceptance Criteria

| Desired Output | Required Service | Performance Standard | Acceptance Criteria |
|---|---|---|---|
| Accurate Reporting for all C&A activities | Project Management | Weekly progress reports for each project and program | Reports must include the following:<br>• Title Page<br>• Project/Program description<br>• Summary Page<br>• EVM project metrics<br>• Work Accomplished<br>• Work Scheduled<br>• Critical Path Issues/Business Risks |

Table 5 – QA Performance Measures and Acceptance Criteria

| Desired Output | Required Service | Performance Standard | Acceptance Criteria |
|---|---|---|---|

| Desired Output | Required Service | Performance Standard | Acceptance Criteria |
|---|---|---|---|
| Centralized Enterprise Quality Assurance Capability | C&A Quality Assurance Support | Accurate documentation of Project Plan schedule. Templates used throughout C&A process. All documentation shall be identified with the correct security label. | Deadlines met 99% and deliverables submitted on time. Schedule baseline only once. All C&A documentation reviewed must free of spelling, grammatical or factual errors before final acceptance. EVM deviations less then 10%. |
| | Document Management | Processes should be repeatable without ad hoc adjustments. | Document Management Processes are at CMM level 3. |
| | CSAM Support | CSAM dashboard is accurate and up to date. | The executive dashboard is 100% accurate. |
| | Develop C&A Compliance Review Checklist | Accurate documentation of C&A checklist with revision cycles as appropriate to policy changes. All documentation shall be identified with the correct security label. | Deadlines met 99% and deliverables submitted on time. Documentation must free of spelling, grammatical or factual errors. EVM deviations less then 10%. |
| | Conduct Compliance Review on C&A Packages and Core Security Documents | Accurate documentation and oral summaries of C&A packages and core security documents. All documentation shall be identified with the correct security label. | Deliverables submitted 99% on time. Documentation must free of spelling, grammatical or factual errors. EVM deviations less then 10%. |
| | Develop Corrective Actions for C&A Documentation and Processes | Accurate documentation and oral summaries of C&A packages and core security documents. All documentation shall be identified with the correct security label. | Deliverables submitted 99% on time. Documentation must free of spelling, grammatical or factual errors. EVM deviations less then 10%. |
| | C&A Performance Metric Tracking and Reporting | Accurate reporting of C&A progress, continuous monitoring and configuration management. System inventory updated weekly. All documentation shall be identified with the correct security label. | Status reports submitted 99% on time. Documentation must free of spelling, grammatical or factual errors. System inventory must be kept up-to-date at all times. |
| | Develop C&A Core Security Document Templates | Templates used with revision cycles as appropriate to policy changes. | Deliverables submitted 99% on time. Documentation must free of spelling, grammatical or factual errors. |

Table 6 – CA Performance Measures and Acceptance Criteria

| Desired Output | Required Service | Performance Standard | Acceptance Criteria |
|---|---|---|---|
| Centralized Enterprise Certification Agent | Preparation of the Controls Testing / Security Test and Evaluation (ST&E) Plan | ST&E plans accurately describe all the controls to be tested with revision cycles as appropriate to policy changes. . | Control test scripts followed 100% of the time. |
| | Certification Support | Substantiate all control testing via checklists and artifacts (i.e. screen shots, logs, interview notes) as a result of the tested control | 100% of the control test results can be substantiated. |
| | Conduct and Analyze the Results of the ST&E | Substantiate all control testing via checklists and artifacts (i.e. screen shots, logs, interview notes) as a result of the tested control | 100% of the control test results can be substantiated. All false positives are removed from the test results but archived for further analysis. |
| | System Security Auditing | Previous assessments will be IV&V'ed by the contractor. | 100% of all documented vulnerabilities will have an associated recommendation with realistic time frames. |

| Desired Output | Required Service | Performance Standard | Acceptance Criteria |
|---|---|---|---|
| | Conduct Penetration Testing | The system must resume normal operations within established Recovery Time Objectives (RTO). | 100% of all planned simulated intrusion attacks are employed unless there is a stop order by the system owner. |
| | Penetration Test | Multiple attack vectors will be used. At least 3 vulnerable assessment tools will be used and are appropriate to the OS. | Network production is impacted by the testing less than 2% cumulatively throughout the year. |
| | Rules of Engagement | Lead times prior to testing are observed. | Attacks kept within the defined ROE boundaries 100% of the time. |
| | Update C&A Packages | Positive findings and recommendations are documented in the POA&M. All documentation shall be identified with the correct security label. | 100% of the findings are verified by the system owner and tracked. |
| | Training & Standardization | Processes related to CA testing is documented and managed. | 100% of the system owners how a vulnerability is exploited through training. |

**19.0 Other Pertinent Information or Special Considerations**

Travel for this SOW maybe required. Detail requirements for travel are to be determined.

**20.0 Knowledge Transfer**

The contractor shall provide periodic training whenever the contractor introduces new C&A processes or when the contractor changes existing C&A processes. All C&A processes and changes to established C&A processes shall be thoroughly documented. It is the responsibility of the contractor to mentor personnel regarding C&A processes. When there is a transition within the Contractor's staffing, the Contractor shall be responsible for ensuring the incoming personnel is fully versed on any outstanding project deadlines, roles and responsibilities before the new person arrives on the job. In the case of when the services of the Contractor is no longer required, the Contractor shall begin the knowledge transfer to Government personnel or its designated representative at least four weeks before the final contract termination date.

(END OF TASK ORDERS)

# ATTACHMENT L

# LABOR PRICE TEMPLATE

## ATTACHMENT L: LABOR PRICE TEMPLATE

Note 1: The Offeror shall enter proposed prices into this labor hour template and escalate the prices for 1-year by the offeror's proposed escalation factors for each subsequent year.

Note 2: The below hourly labor rates are maximum rates during the period of the contract. The Contractor may propose lower hourly rates under individual task orders.

| | Business Category Code | Corporate Job Titles | Hours | Fully Burden Rate Year 1 | Fully Burden Rate Year 2 | Fully Burden Rate Year 3 | Fully Burden Rate Year 4 | Fully Burden Rate Year 5 | Fully Burden Rate Year 6 | Fully Burden Rate Year 7 | Fully Burden Rate Year 8 | Fully Burden Rate Year 9 | Fully Burden Rate Year 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Core Business Services (CBS) | CBS | Administrative Assistant I | 1 | | | | | | | | | | |
| | CBS | Administrative Assistant II | 1 | | | | | | | | | | |
| | CBS | Administrative Specialist III | 1 | | | | | | | | | | |
| | CBS | Administrative Specialist IV | 1 | | | | | | | | | | |
| | CBS | Administrative Specialist V | 1 | | | | | | | | | | |
| | CBS | Business Analyst I | 1 | | | | | | | | | | |
| | CBS | Business Analyst II | 1 | | | | | | | | | | |
| | CBS | Business Analyst III | 1 | | | | | | | | | | |
| | CBS | Business Analyst IV | 1 | | | | | | | | | | |
| | CBS | Business Analyst V | 1 | | | | | | | | | | |
| | CBS | Clerk I | 1 | | | | | | | | | | |
| | CBS | Clerk II | 1 | | | | | | | | | | |
| | CBS | Clerk III | 1 | | | | | | | | | | |
| | CBS | Clerk IV | 1 | | | | | | | | | | |
| | CBS | Clerk V | 1 | | | | | | | | | | |
| | CBS | Contracts Administration I | 1 | | | | | | | | | | |
| | CBS | Contracts Administration II | 1 | | | | | | | | | | |
| | CBS | Contracts Administration III | 1 | | | | | | | | | | |
| | CBS | Contracts Administration IV | 1 | | | | | | | | | | |
| | CBS | Contracts Administration V | 1 | | | | | | | | | | |
| | CBS | Department Manager I | 1 | | | | | | | | | | |
| | CBS | Department Manager II | 1 | | | | | | | | | | |
| | CBS | Department Manager III | 1 | | | | | | | | | | |
| | CBS | Department Manager IV | 1 | | | | | | | | | | |
| | CBS | Department Manager V | 1 | | | | | | | | | | |
| | CBS | Executive Management I | 1 | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CBS | Executive Management II | 1 | | | | | | | | | | |
| | CBS | Executive Management III | 1 | | | | | | | | | | |
| | CBS | Executive Management IV | 1 | | | | | | | | | | |
| | CBS | Executive Management V | 1 | | | | | | | | | | |
| | CBS | Finance / Accounting Specialist I | 1 | | | | | | | | | | |
| | CBS | Finance / Accounting Specialist II | 1 | | | | | | | | | | |
| | CBS | Finance / Accounting Specialist III | 1 | | | | | | | | | | |
| | CBS | Finance / Accounting Specialist IV | 1 | | | | | | | | | | |
| | CBS | Finance / Accounting Specialist V | 1 | | | | | | | | | | |
| | CBS | Group Lead I | 1 | | | | | | | | | | |
| | CBS | Group Lead II | 1 | | | | | | | | | | |
| | CBS | Group Lead III | 1 | | | | | | | | | | |
| | CBS | Group Lead IV | 1 | | | | | | | | | | |
| | CBS | Group Lead V | 1 | | | | | | | | | | |
| | CBS | H/R Specialist I | 1 | | | | | | | | | | |
| | CBS | H/R Specialist II | 1 | | | | | | | | | | |
| | CBS | H/R Specialist III | 1 | | | | | | | | | | |
| | CBS | H/R Specialist IV | 1 | | | | | | | | | | |
| | CBS | H/R Specialist V | 1 | | | | | | | | | | |
| | CBS | Procurement / Logistics Specialist I | 1 | | | | | | | | | | |
| | CBS | Procurement / Logistics Specialist II | 1 | | | | | | | | | | |
| | CBS | Procurement / Logistics Specialist III | 1 | | | | | | | | | | |
| | CBS | Procurement / Logistics Specialist IV | 1 | | | | | | | | | | |
| | CBS | Procurement / Logistics Specialist V | 1 | | | | | | | | | | |
| | CBS | Program Manager I | 1 | | | | | | | | | | |
| | CBS | Program Manager II | 1 | | | | | | | | | | |
| | CBS | Program Manager III | 1 | | | | | | | | | | |
| | CBS | Program Manager IV | 1 | | | | | | | | | | |
| | CBS | Program Manager V | 1 | | | | | | | | | | |
| | CBS | Project Manager I | 1 | | | | | | | | | | |
| | CBS | Project Manager II | 1 | | | | | | | | | | |
| | CBS | Project Manager III | 1 | | | | | | | | | | |
| | CBS | Project Manager IV | 1 | | | | | | | | | | |
| | CBS | Project Manager V | 1 | | | | | | | | | | |
| | CBS | Quality Assurance Specialist I | 1 | | | | | | | | | | |
| | CBS | Quality Assurance Specialist II | 1 | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CBS | Quality Assurance Specialist III | 1 | | | | | | | | | | |
| | CBS | Quality Assurance Specialist IV | 1 | | | | | | | | | | |
| | CBS | Quality Assurance Specialist V | 1 | | | | | | | | | | |
| Communication & Outreach Support Services (COSS) | COSS | Editor I | 1 | | | | | | | | | | |
| | COSS | Editor II | 1 | | | | | | | | | | |
| | COSS | Editor III | 1 | | | | | | | | | | |
| | COSS | Editor IV | 1 | | | | | | | | | | |
| | COSS | Editor V | 1 | | | | | | | | | | |
| | COSS | Media Specialist I | 1 | | | | | | | | | | |
| | COSS | Media Specialist II | 1 | | | | | | | | | | |
| | COSS | Media Specialist III | 1 | | | | | | | | | | |
| | COSS | Media Specialist IV | 1 | | | | | | | | | | |
| | COSS | Media Specialist V | 1 | | | | | | | | | | |
| | COSS | Outreach & Education Specialist I | 1 | | | | | | | | | | |
| | COSS | Outreach & Education Specialist II | 1 | | | | | | | | | | |
| | COSS | Outreach & Education Specialist III | 1 | | | | | | | | | | |
| | COSS | Outreach & Education Specialist IV | 1 | | | | | | | | | | |
| | COSS | Outreach & Education Specialist V | 1 | | | | | | | | | | |
| | COSS | Technical Writer I | 1 | | | | | | | | | | |
| | COSS | Technical Writer II | 1 | | | | | | | | | | |
| | COSS | Technical Writer III | 1 | | | | | | | | | | |
| | COSS | Technical Writer IV | 1 | | | | | | | | | | |
| | COSS | Technical Writer V | 1 | | | | | | | | | | |
| Engineering Support Services (ESS) | ESS | Engineer I | 1 | | | | | | | | | | |
| | ESS | Engineer II | 1 | | | | | | | | | | |
| | ESS | Engineer III | 1 | | | | | | | | | | |
| | ESS | Engineer IV | 1 | | | | | | | | | | |
| | ESS | Engineer V | 1 | | | | | | | | | | |
| | ESS | Chief Engineer | 1 | | | | | | | | | | |
| | ESS | Engineering Technician I | 1 | | | | | | | | | | |
| | ESS | Engineering Technician II | 1 | | | | | | | | | | |
| | ESS | Engineering Technician III | 1 | | | | | | | | | | |
| | ESS | Engineering Technician IV | 1 | | | | | | | | | | |
| | ESS | Engineering Technician V | 1 | | | | | | | | | | |
| | ESS | Environmental Engineer I | 1 | | | | | | | | | | |
| | ESS | Environmental Engineer II | 1 | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ESS | Environmental Engineer III | 1 | | | | | | | | | | |
| | ESS | Environmental Engineer IV | 1 | | | | | | | | | | |
| | ESS | Environmental Engineer V | 1 | | | | | | | | | | |
| | ESS | Safety Engineer I | 1 | | | | | | | | | | |
| | ESS | Safety Engineer II | 1 | | | | | | | | | | |
| | ESS | Safety Engineer III | 1 | | | | | | | | | | |
| | ESS | Safety Engineer IV | 1 | | | | | | | | | | |
| | ESS | Safety Engineer V | 1 | | | | | | | | | | |
| | ESS | Software Engineer I | 1 | | | | | | | | | | |
| | ESS | Software Engineer II | 1 | | | | | | | | | | |
| | ESS | Software Engineer III | 1 | | | | | | | | | | |
| | ESS | Software Engineer IV | 1 | | | | | | | | | | |
| | ESS | Software Engineer V | 1 | | | | | | | | | | |
| | ESS | Technical Specialist I | 1 | | | | | | | | | | |
| | ESS | Technical Specialist II | 1 | | | | | | | | | | |
| | ESS | Technical Specialist III | 1 | | | | | | | | | | |
| | ESS | Technical Specialist IV | 1 | | | | | | | | | | |
| | ESS | Technical Specialist V | 1 | | | | | | | | | | |
| Environmental Services (EVS) | EVS | Analyst I | 1 | | | | | | | | | | |
| | EVS | Analyst II | 1 | | | | | | | | | | |
| | EVS | Analyst III | 1 | | | | | | | | | | |
| | EVS | Analyst IV | 1 | | | | | | | | | | |
| | EVS | Analyst V | 1 | | | | | | | | | | |
| | EVS | Environmental Scientist I | 1 | | | | | | | | | | |
| | EVS | Environmental Scientist II | 1 | | | | | | | | | | |
| | EVS | Environmental Scientist III | 1 | | | | | | | | | | |
| | EVS | Environmental Scientist IV | 1 | | | | | | | | | | |
| | EVS | Environmental Scientist V | 1 | | | | | | | | | | |
| | EVS | Technician I | 1 | | | | | | | | | | |
| | EVS | Technician II | 1 | | | | | | | | | | |
| | EVS | Technician III | 1 | | | | | | | | | | |
| | EVS | Technician IV | 1 | | | | | | | | | | |
| | EVS | Technician V | 1 | | | | | | | | | | |
| | EVS | UXO Safety Officer | 1 | | | | | | | | | | |
| | EVS | UXO Supervisor | 1 | | | | | | | | | | |
| | EVS | UXO Technician I | 1 | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EVS | UXO Technician II | 1 | | | | | | | | | | |
| | EVS | UXO Technician III | 1 | | | | | | | | | | |
| Information Technology Support Services (ITSS) | ITSS | Configuration Management Specialist I | 1 | | | | | | | | | | |
| | ITSS | Configuration Management Specialist II | 1 | | | | | | | | | | |
| | ITSS | Configuration Management Specialist III | 1 | | | | | | | | | | |
| | ITSS | Configuration Management Specialist IV | 1 | | | | | | | | | | |
| | ITSS | Configuration Management Specialist V | 1 | | | | | | | | | | |
| | ITSS | Database Administrator I | 1 | | | | | | | | | | |
| | ITSS | Database Administrator II | 1 | | | | | | | | | | |
| | ITSS | Database Administrator III | 1 | | | | | | | | | | |
| | ITSS | Database Administrator IV | 1 | | | | | | | | | | |
| | ITSS | Database Administrator V | 1 | | | | | | | | | | |
| | ITSS | Database Specialist I | 1 | | | | | | | | | | |
| | ITSS | Database Specialist II | 1 | | | | | | | | | | |
| | ITSS | Database Specialist III | 1 | | | | | | | | | | |
| | ITSS | Database Specialist IV | 1 | | | | | | | | | | |
| | ITSS | Database Specialist V | 1 | | | | | | | | | | |
| | ITSS | Help Desk Specialist I | 1 | | | | | | | | | | |
| | ITSS | Help Desk Specialist II | 1 | | | | | | | | | | |
| | ITSS | Help Desk Specialist III | 1 | | | | | | | | | | |
| | ITSS | Help Desk Specialist IV | 1 | | | | | | | | | | |
| | ITSS | Help Desk Specialist V | 1 | | | | | | | | | | |
| | ITSS | IT Security Specialist I | 1 | | | | | | | | | | |
| | ITSS | IT Security Specialist II | 1 | | | | | | | | | | |
| | ITSS | IT Security Specialist III | 1 | | | | | | | | | | |
| | ITSS | IT Security Specialist IV | 1 | | | | | | | | | | |
| | ITSS | IT Security Specialist V | 1 | | | | | | | | | | |
| | ITSS | IT/Computer Specialist I | 1 | | | | | | | | | | |
| | ITSS | IT/Computer Specialist II | 1 | | | | | | | | | | |
| | ITSS | IT/Computer Specialist III | 1 | | | | | | | | | | |
| | ITSS | IT/Computer Specialist IV | 1 | | | | | | | | | | |
| | ITSS | IT/Computer Specialist V | 1 | | | | | | | | | | |
| | ITSS | Network Engineer I | 1 | | | | | | | | | | |
| | ITSS | Network Engineer II | 1 | | | | | | | | | | |

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| | ITSS | Network Engineer III | 1 | | | | | | | | | | |
| | ITSS | Network Engineer IV | 1 | | | | | | | | | | |
| | ITSS | Network Engineer V | 1 | | | | | | | | | | |
| | ITSS | Programmer Analyst I | 1 | | | | | | | | | | |
| | ITSS | Programmer Analyst II | 1 | | | | | | | | | | |
| | ITSS | Programmer Analyst III | 1 | | | | | | | | | | |
| | ITSS | Programmer Analyst IV | 1 | | | | | | | | | | |
| | ITSS | Programmer Analyst V | 1 | | | | | | | | | | |
| | ITSS | System Administrator I | 1 | | | | | | | | | | |
| | ITSS | System Administrator II | 1 | | | | | | | | | | |
| | ITSS | System Administrator III | 1 | | | | | | | | | | |
| | ITSS | System Administrator IV | 1 | | | | | | | | | | |
| | ITSS | System Administrator V | 1 | | | | | | | | | | |
| | ITSS | System Engineer I | 1 | | | | | | | | | | |
| | ITSS | System Engineer II | 1 | | | | | | | | | | |
| | ITSS | System Engineer III | 1 | | | | | | | | | | |
| | ITSS | System Engineer IV | 1 | | | | | | | | | | |
| | ITSS | System Engineer V | 1 | | | | | | | | | | |
| | ITSS | Web Designer/Developer I | 1 | | | | | | | | | | |
| | ITSS | Web Designer/Developer II | 1 | | | | | | | | | | |
| | ITSS | Web Designer/Developer III | 1 | | | | | | | | | | |
| | ITSS | Web Designer/Developer IV | 1 | | | | | | | | | | |
| | ITSS | Web Designer/Developer V | 1 | | | | | | | | | | |
| | ITSS | Web Programmer I | 1 | | | | | | | | | | |
| | ITSS | Web Programmer II | 1 | | | | | | | | | | |
| | ITSS | Web Programmer III | 1 | | | | | | | | | | |
| | ITSS | Web Programmer IV | 1 | | | | | | | | | | |
| | ITSS | Web Programmer V | 1 | | | | | | | | | | |
| Scientific Support Services (SSS) | SSS | Data Technician I | 1 | | | | | | | | | | |
| | SSS | Data Technician II | 1 | | | | | | | | | | |
| | SSS | Data Technician III | 1 | | | | | | | | | | |
| | SSS | Data Technician IV | 1 | | | | | | | | | | |
| | SSS | Data Technician V | 1 | | | | | | | | | | |
| | SSS | GIS Specialist I | 1 | | | | | | | | | | |
| | SSS | GIS Specialist II | 1 | | | | | | | | | | |
| | SSS | GIS Specialist III | 1 | | | | | | | | | | |

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| | SSS | GIS Specialist IV | 1 | | | | | | | | | | |
| | SSS | GIS Specialist V | 1 | | | | | | | | | | |
| | SSS | Scientific Programmer I | 1 | | | | | | | | | | |
| | SSS | Scientific Programmer II | 1 | | | | | | | | | | |
| | SSS | Scientific Programmer III | 1 | | | | | | | | | | |
| | SSS | Scientific Programmer IV | 1 | | | | | | | | | | |
| | SSS | Scientific Programmer V | 1 | | | | | | | | | | |
| | SSS | Scientist I | 1 | | | | | | | | | | |
| | SSS | Scientist II | 1 | | | | | | | | | | |
| | SSS | Scientist III | 1 | | | | | | | | | | |
| | SSS | Scientist IV | 1 | | | | | | | | | | |
| | SSS | Scientist V | 1 | | | | | | | | | | |
| | SSS | Chief Scientist | 1 | | | | | | | | | | |

# ATTACHMENT M

# LABOR CATEGORY DESCRIPTION

## ATTACHMENT M: LABOR CATEGORY DESCRIPTION

| | Business Category Code | Corporate Job Titles | Industry Labor Code | Description |
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| Core Business Services (CBS) | CBS | Administrative Assistant I | AS | **ADMINISTRATIVE SPECIALIST I** Performs a variety of secretarial duties, such as typing correspondence, reports, and memos using a word processor, maintaining computer-based and paper files, answering and screening calls, and opening and distributing mail for a department or unit. This is an entry-level secretarial position. Requires standard typing and language skills and may require transcription skills. Requires a HS diploma (or equivalent), and up to **0 to 2** year of experience. |
| | CBS | Administrative Assistant II | AS | **ADMINISTRATIVE SPECIALIST II** Performs similar duties as Administrative Specialist I. In addition, answers routine inquires and prepares standard correspondence. May operate spreadsheet programs, use electronic mail, maintain personal information systems and databases, and perform other semi-automated administrative support tasks. Works under general supervision and usually requires typing and dictations skills. Requires HS diploma (or equivalent), and 2 to 4 years experience. |
| | CBS | Administrative Specialist III | AS | **ADMINISTRATIVE SPECIALIST III** Performs a variety of both complex and routine administrative and secretarial duties. May provide work direction to lower-level secretarial staff in the same department or unit. Requires extensive working knowledge of assigned department's practices and procedures. Requires a HS diploma (or equivalent), and 4 to 6 years related experience. May require relevant college courses. |
| | CBS | Administrative Specialist IV | AS | **ADMINISTRATIVE SPECIALIST IV** Performs secretarial and administrative duties for a department or single top executive other than the chief executive. Reports to a senior officer in a small organization or to the person responsible for a major activity in a large organization. Performs duties of a highly confidential nature that may require comprehensive knowledge of organizational policies, practices, and procedures. Sets up meetings and may act as proxy for superior. May directly supervise lower-level secretarial or clerical staff. Requires a HS diploma (or equivalent), and 6 to 8 years related experience. AA degree preferred. May require relevant college courses. |
| | CBS | Administrative Specialist V | AS | **ADMINISTRATIVE SPECIALIST V** Performs administrative, secretarial, and related duties for a department, top executive or the chief executive officer. Duties are highly confidential and require broad and comprehensive knowledge of the organization's policies and operations. Responsibilities require discretion, judgment, tact and poise. Incumbent may have considerable latitude and flexibility in carrying out assigned tasks. Normally uses word processing or similar equipment in performing routine secretarial duties. May directly supervise lower-level secretarial or clerical staff. Requires a HS diploma (or equivalent), and 8 to 10 years related experience. AA degree perferred. May require relevant college courses. |
| | CBS | Business Analyst I | PS | **BUSINESS ANALYST I** Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Primary job functions do not typically require exercising independent judgment. Typically reports to a manager. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Requires BS/BA in appropriate field (or equivalent) and 0 to 2 years experience. |
| | CBS | Business Analyst II | PS | **BUSINESS ANALYST II** Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs. Familiar with relational database concepts, and client-server concepts. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Requires BS/BA in appropriate field (or equivalent) and 2 to 4 years experience. |
| | CBS | Business Analyst III | PS | **BUSINESS ANALYST III** Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs. Familiar with relational database concepts, and client-server concepts. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Requires BS/BA in appropriate field (or equivalent) and 4 to 6 years experience. |

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| | CBS | Business Analyst IV | PS | **BUSINESS ANALYST IV** Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs. Familiar with related computer software/programs used to perform job functions. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Requires BS/BA in appropriate field (or equivalent) and 6 to 8 years experience. |
| | CBS | Business Analyst V | PS | **BUSINESS ANALYST V** Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs. Familiar with related computer software/programs used to perform job functions. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Requires BS/BA in appropriate field (or equivalent) and 8 to 10 years experience. |
| | CBS | Clerk I | AS | **CLERK I** Performs routine accounting activities such as maintenance of the general ledger, preparation of various accounting statements and financial reports and accounts payable or receivable functions. Performs a variety of clerical tasks such as competing forms, preparing reports, letters, and responds to customer, vendor, or employee phone requests and inquiries. Requires a high school diploma or its equivalent with 0-2 years of experience in the field or in a related area. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager. Requires a HS diploma (or equivalent), and up to 0 to 2 year of experience. |
| | CBS | Clerk II | AS | **CLERK II** Performs routine accounting activities such as maintenance of the general ledger, preparation of various accounting statements and financial reports and accounts payable or receivable functions. Performs a variety of clerical tasks such as competing forms, preparing reports, letters, and responds to customer, vendor, or employee phone requests and inquiries. Requires a high school diploma or its equivalent with 2-4 years of experience in the field or in a related area. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. Requires a HS diploma (or equivalent), and up to 2 to 4 year of experience. |
| | CBS | Clerk III | AS | **CLERK III** Performs routine accounting activities such as maintenance of the general ledger, preparation of various accounting statements and financial reports and accounts payable or receivable functions. Performs a variety of clerical tasks such as competing forms, preparing reports, letters, and responds to customer, vendor, or employee phone requests and inquiries. Requires a high school diploma or its equivalent and 4-6 years of related experience. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a supervisor or manager. Requires a HS diploma (or equivalent), and up to 4 to 6 year of experience. |
| | CBS | Clerk IV | AS | **CLERK IV** Performs routine accounting activities such as maintenance of the general ledger, preparation of various accounting statements and financial reports and accounts payable or receivable functions. Performs a variety of clerical tasks such as competing forms, preparing reports, letters, and responds to customer, vendor, or employee phone requests and inquiries. Requires a high school diploma or its equivalent and 6-8 years of related experience. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a supervisor or manager. Requires a HS diploma (or equivalent), and up to 6 to 8 year of experience. |

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| | CBS | Clerk V | AS | **CLERK V** Performs routine accounting activities such as maintenance of the general ledger, preparation of various accounting statements and financial reports and accounts payable or receivable functions. Performs a variety of clerical tasks such as competing forms, preparing reports, letters, and responds to customer, vendor, or employee phone requests and inquiries. Requires a high school diploma or equivalent and 8-10 years of related experience, AA degree preferred. May require management training. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a supervisor or manager. Requires a HS diploma (or equivalent), and up to 8 to 10 year of experience. |
| | CBS | Contracts Administration I | CPS | **CONTRACT ADMINISTRATOR I** Administers most aspect of contract from proposal administration to contract close-out phase. Coordinates estimates of materials, equipment, labor costs, performance requirements, and assists in developing final bids, Works under general supervision. Performs other duties as assigned. This is usually an exempt position. Requires BS/BA in appropriate field (or equivalent) and 0 to 2 years experience. |
| | CBS | Contracts Administration II | CPS | **CONTRACT ADMINISTRATOR II** Negotiates and administers all aspects of contracts from proposals to contract close-out phase. Works on more complex bids that may require integrating proposal from subcontractors and other potential vendors. Coordinates estimates of materials, equipment, labor costs, performance requirements, and delivery schedules. Prepares bids, cost model, and cost narrative, Reviews bids for conformity to request for proposal (RFP) requirements and develops final bids. May supervise lower-level contracts administrators. Requires BS/BA in appropriate field (or equivalent) and 2 to 4 years experience. |
| | CBS | Contracts Administration III | CPS | **CONTRACT ADMINISTRATOR III** Supervises contracts administration staff. Ensures that contractual activities comply with all terms and conditions to include the FAR and/or other government regulations. Develops bid strategy and negotiates complex contracts and contract modification. Reviews and resolves issues affecting company compliance and ensures satisfaction of legal requirements. Requires BS/BA in appropriate field (or equivalent) and 4 to 6 years experience. |
| | CBS | Contracts Administration IV | CPS | **CONTRACT ADMINISTRATOR IV** Typically the senior executive in charge of preparing bids and proposals and ensuring that contractual activities comply with all terms and conditions. Directs the preparation, negotiation, and administration of all contracts, subcontracts, modifications, and related activities. Establishes major contract objectives or policies for the organization, ensuring compliance with FAR and other regulations. May also direct the regulatory compliance oversight function. Requires BS/BA in appropriate field (or equivalent) and 6 to 8 years experience. |
| | CBS | Contracts Administration V | CPS | **CONTRACT ADMINISTRATOR V** Typically the senior executive in charge of preparing bids and proposals and ensuring that contractual activities comply with all terms and conditions. Directs the preparation, negotiation, and administration of all contracts, subcontracts, modifications, and related activities. Establishes major contract objectives or policies for the organization, ensuring compliance with FAR and other regulations. May also direct the contracting department. Requires BS/BA in appropriate field (or equivalent) and 8 to 10 years experience. |
| | CBS | Department Manager I | M | **DEPARTMENT MANAGER I** Will work under minimum supervision in providing day-to-day direction of organization, branch, or department operation strategies and activities. The functional activities generally will be of a routine nature. Will regularly exercise independent judgment, as well as a moderate level of problem-solving ability in solving various technical, administrative, and managerial problems. The individual will: (1) Assign work and monitor performance to ensure satisfactory completion; (2) Assign priorities as necessary to maximize production; (3) Train assigned personnel in order to increase the capability of the group; (4) Implement and interpret company policies; (5) May participate in recruiting of personnel. Typically reports to a Director or Chief Operating Officer and may have Operations Supervisor(s) reporting to this position. Requires an **AA** or equivalent plus 4 years, 2 of which must be in a supervisory role with directly related experience. |

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| | CBS | Department Manager II | M | **DEPARTMENT MANAGER II** Will work under minimum supervision in providing day-to-day direction of organization, branch, or department operation strategies and activities. The functional activities generally will be of a routine nature. Will regularly exercise independent judgment, as well as a moderate level of problem-solving ability in solving various technical, administrative, and managerial problems. The individual will: (1) Assign work and monitor performance to ensure satisfactory completion; (2) Assign priorities as necessary to maximize production; (3) Train assigned personnel in order to increase the capability of the group; (4) Implement and interpret company policies; (5) May participate in recruiting of personnel. Typically reports to a Director or Chief Operating Officer and may have Operations Supervisor(s) reporting to this position. Requires an BS/BA or equivalent plus 4 years, 2 of which must be in a supervisory role with directly related experience. |
| | CBS | Department Manager III | M | **DEPARTMENT MANAGER III** Will work under minimum supervision in providing day-to-day direction of organization, branch, or department operation strategies and activities. The functional activities generally will be of a routine nature. Will regularly exercise independent judgment, as well as a moderate level of problem-solving ability in solving various technical, administrative, and managerial problems. The individual will: (1) Assign work and monitor performance to ensure satisfactory completion; (2) Assign priorities as necessary to maximize production; (3) Train assigned personnel in order to increase the capability of the group; (4) Implement and interpret company policies; (5) May participate in recruiting of personnel. Typically reports to a Director or Chief Operating Officer and may have Operations Supervisor(s) reporting to this position. Requires an BS/BA or equivalent plus 6 years, 3 of which must be in a supervisory role with directly related experience. |
| | CBS | Department Manager IV | M | **DEPARTMENT MANAGER IV** Will work under minimum supervision in providing day-to-day direction of organization, branch, or department operation strategies and activities. The functional activities generally will be of a routine nature. Will regularly exercise independent judgment, as well as a moderate level of problem-solving ability in solving various technical, administrative, and managerial problems. The individual will: (1) Assign work and monitor performance to ensure satisfactory completion; (2) Assign priorities as necessary to maximize production; (3) Train assigned personnel in order to increase the capability of the group; (4) Implement and interpret company policies; (5) May participate in recruiting of personnel. Typically reports to a Director or Chief Operating Officer and may have Operations Supervisor(s) reporting to this position. Requires an BS/BA or equivalent plus 8 years, 4 of which must be in a supervisory role with directly related experience. |
| | CBS | Department Manager V | M | **DEPARTMENT MANAGER V** Will work under minimum supervision in providing day-to-day direction of organization, branch, or department operation strategies and activities. The functional activities generally will be of a routine nature. Will regularly exercise independent judgment, as well as a moderate level of problem-solving ability in solving various technical, administrative, and managerial problems. The individual will: (1) Assign work and monitor performance to ensure satisfactory completion; (2) Assign priorities as necessary to maximize production; (3) Train assigned personnel in order to increase the capability of the group; (4) Implement and interpret company policies; (5) May participate in recruiting of personnel. Typically reports to a Director or Chief Operating Officer and may have Operations Supervisor(s) reporting to this position. Requires an BS/BA or equivalent plus 10 years, 5 of which must be in a supervisory role with directly related experience. |
| | CBS | Executive Management I | EX | **EXECUTIVE MANAGEMENT I** Responsible for directing an organization's overall major operations, such as financial operations (CFO). Oversees, designs and coordinates a wide variety of high-level functions and organizational operations. Requires high-level analyses and reporting. Requires a BS/BA degree (or equivalent) and at least 10 years of direct experience in the field. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to CEO or COO. |

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| | CBS | Executive Management II | EX | **EXECUTIVE MANAGEMENT II** Responsible for directing an organization's overall major operations, such as financial operations (CFO). Oversees, designs and coordinates a wide variety of high-level functions and organizational operations. Requires high-level analyses and reporting. Requires a BS/BA degree (or equivalent) and at least 15 years of direct experience in the field. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to CEO or COO. |
| | CBS | Executive Management III | EX | **EXECUTIVE MANAGEMENT III** (COO, President, CEO) Plans and directs all aspects of an organization's policies, objectives, and initiatives. Responsible for the short- and long-term profitability and growth of the company. Requires a BS/BA degree (or equivalent) and at least 15 years of direct experience in the field. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. May preside over board of directors. |
| | CBS | Executive Management IV | EX | **EXECUTIVE MANAGEMENT IV** (COO, President, CEO) Plans and directs all aspects of an organization's policies, objectives, and initiatives. Responsible for the short- and long-term profitability and growth of the company. May require a bachelor's degree with at least 15 years of experience in the field. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. May preside over board of directors. |
| | CBS | Executive Management V | EX | **EXECUTIVE MANAGEMENT V** (COO, President, CEO) Plans and directs all aspects of an organization's policies, objectives, and initiatives. Responsible for the short- and long-term profitability and growth of the company. May require a bachelor's degree with at least 15 years of experience in the field. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. May preside over board of directors. |
| | CBS | Finance / Accounting Specialist I | AC | **FINANCE/ACCOUNTING I** Examines a variety of financial statements for completeness, internal accuracy, and conformance with uniform accounting classifications. Reconciles reports and financial data with statement on file and points out apparent inconsistencies or errors. May prepare simple financial statements not involving problems of analysis. Prepares tables, charts, and other exhibits for reports. This is usually an exempt position. Requires a **BS/BA** degree (or equivalent) plus **0 to 2** years experience in related field. |
| | CBS | Finance / Accounting Specialist II | AC | **FINANCE/ACCOUNTING II** Prepares various accounting papers, schedules, exhibits, and summaries. Examines assigned accounting documents to verify accuracy of computations and uniform application of policies, procedures, and acceptable accounting standards. May develop some nonstandard report and statements. Analyzes trends or deviations from standards. Works under general supervision. Requires a BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | CBS | Finance / Accounting Specialist III | AC | **FINANCE/ACCOUNTING III** Analyzed the accounting system to determine the need for new account, revisions in the account structure, new types of ledgers, revisions in reporting system, changes in the use of accounts, and new account classifications or definitions. Makes daily decisions concerning the accounting treatment of financial transactions and recommends solutions to complex accounting problems. May be a specialist in one or more areas of accounting, such as a preparation of tax returns. May provide work directions to lower level accountants. Requires a BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |

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| | CBS | Finance / Accounting Specialist IV | AC | **FINANCE/ACCOUNTING IV** Responsible for conducting financial analysis projects and statistical studies. Provides financial oversight, leadership and support. Designation of CPA may be required. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to top management. Requires a BS/BA degree in related field and may be expected to have an advanced degree (or equivalent), with 6 to 8 years of related experience. |
| | CBS | Finance / Accounting Specialist V | AC | **FINANCE/ACCOUNTING V** Responsible for directing an organization's accounting functions. These functions include establishing and maintaining the organization's accounting principles, practices, and procedures. Prepares financial reports and presents findings and recommendations to top management. Designation of CPA may be required. Typically reports to top financial officer or CEO. Requires a BS/BA degree in related field and may be expected to have an advanced degree (or equivalent), with 8 to 10 years of related experience. |
| | CBS | Group Lead I | M | **GROUP LEAD I** Designs, plans, and coordinates a work team or teams on task-level projects. Provides technical support to project team members. Designs and implements the components required for complex technical functions. Generally manages a group of technical, engineering, and/or scientific analysts. Relies on experience and judgment to plan and accomplish goals. The individual will: (1) Identify and assign priorities to complete assigned projects as required in order to optimize schedules, budgets, and technical excellence; (2) Maintain close contact with customer representatives to identify and respond to customer requests and to ensure that potential sources of difficulty are made known to Company management; (3) Establish and maintain status reports in order to show progress and problems to the customer and to Company management; (4) Provide support to Advanced Program personnel in identifying and acquiring potential business. Typically reports to a senior manager. Requires a B.S. in an associated discipline or equivalent in addition to 4 years of applicable experience. |
| | CBS | Group Lead II | M | **GROUP LEAD II** Designs, plans, and coordinates a work team or teams on task-level projects. Provides technical support to project team members. Designs and implements the components required for complex technical functions. Generally manages a group of technical, engineering, and/or scientific analysts. Relies on experience and judgment to plan and accomplish goals. The individual will: (1) Identify and assign priorities to complete assigned projects as required in order to optimize schedules, budgets, and technical excellence; (2) Maintain close contact with customer representatives to identify and respond to customer requests and to ensure that potential sources of difficulty are made known to Company management; (3) Establish and maintain status reports in order to show progress and problems to the customer and to Company management; (4) Provide support to Advanced Program personnel in identifying and acquiring potential business. Typically reports to a senior manager. Requires an BS/BA or equivalent plus 4 years, 2 of which must be in a supervisory role with directly related experience. |
| | CBS | Group Lead III | M | **GROUP LEAD III** Designs, plans, and coordinates a work team or teams on task-level projects. Provides technical support to project team members. Designs and implements the components required for complex technical functions. Generally manages a group of technical, engineering, and/or scientific analysts. Relies on experience and judgment to plan and accomplish goals. The individual will: (1) Identify and assign priorities to complete assigned projects as required in order to optimize schedules, budgets, and technical excellence; (2) Maintain close contact with customer representatives to identify and respond to customer requests and to ensure that potential sources of difficulty are made known to Company management; (3) Establish and maintain status reports in order to show progress and problems to the customer and to Company management; (4) Provide support to Advanced Program personnel in identifying and acquiring potential business. Typically reports to a senior manager. Requires an BS/BA or equivalent plus 6 years, 3 of which must be in a supervisory role with directly related experience. |

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| | CBS | Group Lead IV | M | **GROUP LEAD IV** Designs, plans, and coordinates a work team or teams on task-level projects. Provides technical support to project team members. Designs and implements the components required for complex technical functions. Generally manages a group of technical, engineering, and/or scientific analysts. Relies on experience and judgment to plan and accomplish goals. The individual will: (1) Identify and assign priorities to complete assigned projects as required in order to optimize schedules, budgets, and technical excellence; (2) Maintain close contact with customer representatives to identify and respond to customer requests and to ensure that potential sources of difficulty are made known to Company management; (3) Establish and maintain status reports in order to show progress and problems to the customer and to Company management; (4) Provide support to Advanced Program personnel in identifying and acquiring potential business. Typically reports to a senior manager. Requires an BS/BA or equivalent plus 8 years, 4 of which must be in a supervisory role with directly related experience. |
| | CBS | Group Lead V | M | **GROUP LEAD V** Designs, plans, and coordinates a work team or teams on task-level projects. Provides technical support to project team members. Designs and implements the components required for complex technical functions. Generally manages a group of technical, engineering, and/or scientific analysts. Relies on experience and judgment to plan and accomplish goals. The individual will: (1) Identify and assign priorities to complete assigned projects as required in order to optimize schedules, budgets, and technical excellence; (2) Maintain close contact with customer representatives to identify and respond to customer requests and to ensure that potential sources of difficulty are made known to Company management; (3) Establish and maintain status reports in order to show progress and problems to the customer and to Company management; (4) Provide support to Advanced Program personnel in identifying and acquiring potential business. Typically reports to a senior manager. Requires an BS/BA or equivalent plus 10 years, 5 of which must be in a supervisory role with directly related experience. |
| | CBS | H/R Specialist I | HR | **HR SPECIALIST I** Performs a variety of professional/administrative human resource functions, which include recruitment, employee/labor relations, training, compensation and benefits, and Equal Employment Opportunity/Affirmative Action programs. Participated in special assignments related to developing and/or designing new or changed human resource programs and practices. Requires a HS diploma and 0 to 2 years relavant experience. |
| | CBS | H/R Specialist II | HR | **HR SPECIALIST II** Performs a variety of professional/administrative human resource functions in areas such as recruitment, compensation, employee/labor relations, training and development, Equal Employment Opportunity/Affirmative Action programs and benefits administration. Advises management and staff of relevant corporate personnel practices, policies and procedures, and informs them of the impact of legislation, regulations and precedents on the organization as they relate to the human resource function. Requires an AA degree (or equivalent) and 1 to 2 years relevant experience. Typically reports to a human resource or administrative manager. |
| | CBS | H/R Specialist III | HR | **HR SPECIALIST III** Administers human resource programs in areas such as recruitment, compensation, employee/labor relations, training and development, Equal Employment Opportunity/Affirmative Action programs and benefits administration. Provides guidance in addressing a variety of human resource related issues and interprets applicable precedents, legislation and regulations pertaining to the human resource function. May give presentations on current human resource topics to employees, management or third parties. This position requires a BSBA degree (or equivalent), and 1 to 2 years of related experience, and typically reports to a human resource or administrative manager. |
| | CBS | H/R Specialist IV | HR | **HR SPECIALIST IV** Develops and administers policies and programs covering one, several, or all of the following: recruitment, wage and salary administration, training, employee/labor relations, benefits, and EEO/Affirmative Action programs. Prepares recommendations for top management concerning human resource policies and practices. Works closely with line and staff management to develop human resource plans and strategies to meet organizational requirements. Ensures that programs, practices, and policies comply with applicable laws and regulations. Regularly informs and present to management and staff current human resource issues and topics affecting the organization. This position is a first-level manager, supervising a human resource staff in larger organizations, the position typically reports to Human Resources manager/director. Requires a BSBA degree (or equivalent), and 2 to 4 years experience. |

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| | CBS | H/R Specialist V | HR | **HR SPECIALIST V** Develops and administers policies and programs covering one, several, or all of the following: recruitment, wage and salary administration, training, employee/labor relations, benefits, and EEO/Affirmative Action programs. Prepares recommendations to top management concerning human resource policies and practices. Works closely with line and staff management to develop human resource plans and strategies to meet organizational requirements. Ensures that programs, practices, and policies comply with applicable laws and regulations. Regularly informs and present to management and staff current human resource issues and topics affecting the organization. This position is a first-level manager, supervising a human resource staff in larger organizations, the position typically reports to Human Resources manager/director. Requires a BSBA degree (or equivalent), and 4 to 6 years experience. |
| | CBS | Procurement / Logistics Specialist I | CPS | **PROCURE/LOGISTICS SPECIALIST I** Responsible for purchasing and negotiating low dollar value materials, equipment, and supplies from vendors. Evaluates vendor quotes and services to determine most desirable suppliers. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. This is an entry level position. Typically reports to a supervisor or manager. HS diploma (or equivalent), and 0 to 2 years of experience in the field or in a related area. |
| | CBS | Procurement / Logistics Specialist II | CPS | **PROCURE/LOGISTICS SPECIALIST II** Responsible for purchasing and negotiating materials, equipment, and supplies from vendors. Evaluates vendor quotes and services to determine most desirable suppliers. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals to perform a variety of tasks. Works under general supervision; typically reports to a supervisor or manager. A certain degree of creativity and latitude is required. HS diploma (or equivalent), and 2 to 4 years of experience in the field or in a related area. |
| | CBS | Procurement / Logistics Specialist III | CPS | **PROCURE/LOGISTICS SPECIALIST III** Responsible for purchasing and negotiating materials, equipment, and supplies from vendors. Evaluates vendor quotes and services to determine most desirable suppliers. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May report to an executive or a manager. A wide degree of creativity and latitude is expected. AA degree (or equivalent) with 2 to 4 years experience in the field or in a related area. |
| | CBS | Procurement / Logistics Specialist IV | CPS | **PROCURE/LOGISTICS SPECIALIST IV** Responsible for purchasing and negotiating materials, equipment, and supplies from vendors. Evaluates vendor quotes and services to determine most desirable suppliers. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. Requires an BS/BA degree (or equivalent) with 2 to 4 years experience in the field or in a related area. |
| | CBS | Procurement / Logistics Specialist V | CPS | **PROCURE/LOGISTICS SPECIALIST V** Responsible for purchasing and negotiating materials, equipment, and supplies from vendors. Evaluates vendor quotes and services to determine most desirable suppliers. Analyzes development in materials and supply to reduce costs and improve quality. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. May manage a staff and typically reports to a manager or head of a unit/department. Requires a BS/BA degree (or equivalent) with 4 to 6 years of experience in a related field. |
| | CBS | Program Manager I | M | **PROGRAM MANAGER I** This individual will work under very broad supervision in providing management and technical direction to program personnel. Will regularly exercise independent judgment, as well as a high-level of analytical skill in solving complex technical, administrative and managerial problems. Will be responsible for all aspects of program performance. The individual will: (1) Be responsible for all aspects of program performance (*i.e.,* technical, contractual, administrative, financial); (2) Manage all aspects of program activity; (3) Provide technical and financial reports in order to show progress to Corporate management and customers; (4) Maintain customer contacts to ensure conformity to all contractual obligations; (5) Assume the initiative and provide support to Corporate management in identifying future requirements; (6) Develop, maintain, and implement a Program Management Plan that guides the performance of all functional activities performed on the Program. Requires a B.S. in an associated discipline (or equivalent) and 4 years of related experience, 2 of which must be in a supervisory role. |

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| | CBS | Program Manager II | M | **PROGRAM MANAGER II** This individual will work under very broad supervision in providing management and technical direction to program personnel. Will regularly exercise independent judgment, as well as a high-level of analytical skill in solving complex technical, administrative and managerial problems. Will be responsible for all aspects of program performance. The individual will: (1) Be responsible for all aspects of program performance (*i.e.,* technical, contractual, administrative, financial); (2) Manage all aspects of program activity; (3) Provide technical and financial reports in order to show progress to Corporate management and customers; (4) Maintain customer contacts to ensure conformity to all contractual obligations; (5) Assume the initiative and provide support to Corporate management in identifying future requirements; (6) Develop, maintain, and implement a Program Management Plan that guides the performance of all functional activities performed on the Program. Requires a B.S. in an associated discipline (or equivalent) and 6 years of related experience, 3 of which must be in a supervisory role. |
| | CBS | Program Manager III | M | **PROGRAM MANAGER III** This individual will work under very broad supervision in providing management and technical direction to program personnel. Will regularly exercise independent judgment, as well as a high-level of analytical skill in solving complex technical, administrative and managerial problems. Will be responsible for all aspects of program performance. The individual will: (1) Be responsible for all aspects of program performance (*i.e.,* technical, contractual, administrative, financial); (2) Manage all aspects of program activity; (3) Provide technical and financial reports in order to show progress to Corporate management and customers; (4) Maintain customer contacts to ensure conformity to all contractual obligations; (5) Assume the initiative and provide support to Corporate management in identifying future requirements; (6) Develop, maintain, and implement a Program Management Plan that guides the performance of all functional activities performed on the Program. Requires a B.S. in an associated discipline (or equivalent) and 8 years of related experience, 4 of which must be in a supervisory role. |
| | CBS | Program Manager IV | M | **PROGRAM MANAGER IV** This individual will work under very broad supervision in providing management and technical direction to program personnel. Will regularly exercise independent judgment, as well as a high-level of analytical skill in solving complex technical, administrative and managerial problems. Will be responsible for all aspects of program performance. The individual will: (1) Be responsible for all aspects of program performance (*i.e.,* technical, contractual, administrative, financial); (2) Manage all aspects of program activity; (3) Provide technical and financial reports in order to show progress to Corporate management and customers; (4) Maintain customer contacts to ensure conformity to all contractual obligations; (5) Assume the initiative and provide support to Corporate management in identifying future requirements; (6) Develop, maintain, and implement a Program Management Plan that guides the performance of all functional activities performed on the Program. Requires a B.S. in an associated discipline (or equivalent) and 10 years of related experience, 5 of which must be in a supervisory role. |
| | CBS | Program Manager V | M | **PROGRAM MANAGER V** This individual will work under very broad supervision in providing management and technical direction to program personnel. Will regularly exercise independent judgment, as well as a high-level of analytical skill in solving complex technical, administrative and managerial problems. Will be responsible for all aspects of program performance. The individual will: (1) Be responsible for all aspects of program performance (*i.e.,* technical, contractual, administrative, financial); (2) Manage all aspects of program activity; (3) Provide technical and financial reports in order to show progress to Corporate management and customers; (4) Maintain customer contacts to ensure conformity to all contractual obligations; (5) Assume the initiative and provide support to Corporate management in identifying future requirements; (6) Develop, maintain, and implement a Program Management Plan that guides the performance of all functional activities performed on the Program. Requires a B.S. in an associated discipline (or equivalent) and 15 years of related experience, 7 of which must be in a supervisory role. |
| | CBS | Project Manager I | M | **PROJECT MANAGER I** Under general supervision, is responsible for assisting with all aspects of field and/or task-level project performance (*i.e.,* technical, contractual, administrative, financial). Supervises personnel involved in all aspects of project activity, organizes and assigns responsibilities to subordinates, oversees the successful completion of all assigned tasks, and maintains customer contacts to ensure conformity to all contractual obligations. Exercises independent judgment, as well as a high-level of analytical skill, in solving non-routine technical, administrative, and managerial problems. BS/BA degree in related field (or equivalent) plus 2 to 4 years of related experience. |

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| | CBS | Project Manager II | M | **PROJECT MANAGER II** Under general supervision, is responsible for all aspects of field and/or task-level project performance (*i.e.,* technical, contractual, administrative, financial). Supervises personnel involved in all aspects of project activity, organizes and assigns responsibilities to subordinates, oversees the successful completion of all assigned tasks, and maintains customer contacts to ensure conformity to all contractual obligations. Exercises independent judgment, as well as a high-level of analytical skill, in solving non-routine technical, administrative, and managerial problems. BS/BA degree in related field (or equivalent) plus 4 to 6 years of related experience, 2 of which must be in a supervisory role. |
| | CBS | Project Manager III | M | **PROJECT MANAGER III** Is responsible for all aspects of field and/or task-level project performance (*i.e.,* technical, contractual, administrative, financial). May work on multiple projects simultaniously. Supervises personnel involved in all aspects of project activity, organizes and assigns responsibilities to subordinates, oversees the successful completion of all assigned tasks, and maintains customer contacts to ensure conformity to all contractual obligations. Exercises independent judgment, as well as a high-level of analytical skill, in solving non-routine technical, administrative, and managerial problems. BS/BA degree in related field (or equivalent) plus 6 to 8 years of related experience, 4 of which must be in a supervisory role. |
| | CBS | Project Manager IV | M | **PROJECT MANAGER IV** Is responsible for all aspects of field and/or task-level project performance (*i.e.,* technical, contractual, administrative, financial). Will probably work on multiple projects simultaniously. Supervises personnel involved in all aspects of project activity, organizes and assigns responsibilities to subordinates, oversees the successful completion of all assigned tasks, and maintains customer contacts to ensure conformity to all contractual obligations. Exercises independent judgment, as well as a high-level of analytical skill, in solving non-routine technical, administrative, and managerial problems. BS/BA degree in related field (or equivalent) plus 8 to 10 years of related experience, 4 of which must be in a supervisory role. |
| | CBS | Project Manager V | M | **PROJECT MANAGER V** Is responsible for all aspects of field and/or task-level project performance (*i.e.,* technical, contractual, administrative, financial). Will work on multiple projects simultaniously.Supervises personnel involved in all aspects of project activity, organizes and assigns responsibilities to subordinates, oversees the successful completion of all assigned tasks, and maintains customer contacts to ensure conformity to all contractual obligations. Exercises independent judgment, as well as a high-level of analytical skill, in solving non-routine technical, administrative, and managerial problems. BS/BA degree in related field (or equivalent) plus 10 + years of related experience, 4 of which must be in a supervisory role. |
| | CBS | Quality Assurance Specialist I | QC | **QUALITY ASSURANCE SPECIALIST I** Responsible for assisting with quality assurance and compliance with applicable regulatory requirements; conducts audits and reviews/analyzes data and documentation. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) in area of specialty and 0 to 2 years of experience in the field or in a related area. |
| | CBS | Quality Assurance Specialist II | QC | **QUALITY ASSURANCE SPECIALIST II** Responsible for assisting with all activities involving quality assurance and compliance with applicable regulatory requirements; conducts audits and reviews/analyzes data and documentation. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. Relies on instructions and pre-established guidelines to perform the functions of the job., but a certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) in area of specialty and 2 to 4 years of experience in the field or in a related area. |
| | CBS | Quality Assurance Specialist III | QC | **QUALITY ASSURANCE SPECIALIST III** Responsible for quality assurance and compliance with applicable regulatory requirements; conducts audits and reviews/analyzes data and documentation. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in area of specialty and 4 to 6 years of experience in the field or in a related area. May require an advanced degree. |

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| | CBS | Quality Assurance Specialist IV | QC | **QUALITY ASSURANCE SPECIALIST IV** Responsible for quality assurance and compliance with applicable regulatory requirements; conducts audits and reviews/analyzes data and documentation. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in area of specialty and 6 to 8 years of experience in the field or in a related area. May require an advanced degree. |
| | CBS | Quality Assurance Specialist V | QC | **QUALITY ASSURANCE SPECIALIST V** Responsible for all aspects of quality assurance and compliance with applicable regulatory requirements; conducts audits and reviews/analyzes data and documentation. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Will very likely lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in area of specialty and 8 to 10 years of experience in the field or in a related area. May require an advanced degree. |
| Communication & Outreach Support (COS) | COSS | Editor I | MS | **EDITOR I** Asists with writing, editing, and proofreading a variety of documents. Ensures that all documents meet established content standards. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under immediate supervision. Relies on instructions and pre-established guidelines to perform the functions of the job. BS/BA degree (or equivalent) in a related area as well as 0 to 2 years of experience in the field or in a related area. |
| | COSS | Editor II | MS | **EDITOR II** Asists with writing, editing, and proofreading a variety of documents. Ensures that all documents meet established content standards. Familiar with standard concepts, practices, and procedures within a particular field. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision; typically reports to a supervisor or manager. A certain degree of creativity and latitude is required. BS/BA degree (or equivalent) in a related area as well as 2 to 4 years of experience in the field or in a related area. |
| | COSS | Editor III | MS | **EDITOR III** Writes, edits, proofreads, and copyedits a variety of documents. Plans and prepares stories for dissemination. Ensures that all documents meet established content standards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in a related area as well as 4 to 6 years of experience in the field or in a related area. |
| | COSS | Editor IV | MS | **EDITOR IV** Writes, edits, proofreads, and copyedits a variety of documents. Plans and prepares stories for dissemination. Ensures that all documents meet established content standards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in a related area as well as 6 to 8 years of experience in the field or in a related area. |
| | COSS | Editor V | MS | **EDITOR V** Writes, edits, proofreads, and copyedits a variety of documents. Plans and prepares stories for dissemination. Ensures that all documents meet established content standards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Will very likely lead and direct the work of others. Typically reports to a manager or head of a unit/department. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. |
| | COSS | Media Specialist I | MS | **MEDIA SPECIALIST I** Assists with the design and implementation of one or more technical media tools such as film, web, audio, etc. to promote the organization and/or its services to the community and the target population. Works with single or multiple forms of media to help ensure a pleasant user experience while imparting precise and accurate content. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under immediate supervision. Relies on instructions and pre-established guidelines to perform the functions of the job. BS/BA degree (or equivalent) in a related area as well as 0 to 2 years of experience in the field or in a related area. |

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| | COSS | Media Specialist II | MS | **MEDIA SPECIALIST II** Assists with the design and implementation of one or more technical media tools such as film, web, audio, etc. to promote the organization and/or its services to the community and the target population. Works with single or multiple forms of media to help ensure a pleasant user experience while imparting precise and accurate content. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) in a related area as well as 2 to 4 years of experience in the field or in a related area. |
| | COSS | Media Specialist III | MS | **MEDIA SPECIALIST III** Designs and implements one or more technical media tools such as film, web, audio, etc. to promote the organization and/or its services to the community and the target population. Works with single or multiple forms of media to help ensure a pleasant user experience while imparting precise and accurate content. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 4 to 6 years of experience in the field or in a related area. |
| | COSS | Media Specialist IV | MS | **MEDIA SPECIALIST IV** Designs and implements one or more technical media tools such as film, web, audio, etc. to promote the organization and/or its services to the community and the target population. Works with single or multiple forms of media to help ensure a pleasant user experience while imparting precise and accurate content. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 6 to 8 years of experience in the field or in a related area. |
| | COSS | Media Specialist V | MS | **MEDIA SPECIALIST V** Designs and implements one or more technical media tools such as film, web, audio, etc. to promote the organization and/or its services to the community and the target population. Works with single or multiple forms of media to help ensure a pleasant user experience while imparting precise and accurate content. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. Will very likely direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. |
| | COSS | Outreach & Education Specialist I | EO | **OUTREACH & EDUCATION SPECIALIST I** Assists with the development and coordination of programs designed to promote the organization and its services and to educate the community and the target population. Creates and distributes educational materials and publications for the community and may be responsible for conducting staff training sessions. Promotes activities and services through various forms of media. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under immediate supervision. Relies on instructions and pre-established guidelines to perform the functions of the job. BS/BA degree (or equivalent) in a related area as well as 0 to 2 years of experience in the field or in a related area. |
| | COSS | Outreach & Education Specialist II | EO | **OUTREACH & EDUCATION SPECIALIST II** Assists with the development and coordination of programs designed to promote the organization and its services and to educate the community and the target population. Creates and distributes educational materials and publications for the community and may be responsible for conducting staff training sessions. Promotes activities and services through various forms of media. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) in a related area as well as 2 to 4 years of experience in the field or in a related area. |
| | COSS | Outreach & Education Specialist III | EO | **OUTREACH & EDUCATION SPECIALIST III** Develops and coordinates programs designed to promote the organization and its services and to educate the community and the target population. Creates and distributes educational materials and publications for the community and may be responsible for conducting staff training sessions. Promotes activities and services through various forms of media. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 4 to 6 years of experience in the field or in a related area. |

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| | COSS | Outreach & Education Specialist IV | EO | **OUTREACH & EDUCATION SPECIALIST IV** Develops and coordinates programs designed to promote the organization and its services and to educate the community and the target population. Creates and distributes educational materials and publications for the community and may be responsible for conducting staff training sessions. Promotes activities and services through various forms of media. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 6 to 8 years of experience in the field or in a related area. |
| | COSS | Outreach & Education Specialist V | EO | **OUTREACH & EDUCATION SPECIALIST V** Develops and coordinates programs designed to promote the organization and its services and to educate the community and the target population. Creates and distributes educational materials and publications for the community and may be responsible for conducting staff training sessions. Promotes activities and services through various forms of media. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. Will very likely direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. |
| | COSS | Technical Writer I | MS | **TECHNICAL WRITER I** Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under immediate supervision. Relies on instructions and pre-established guidelines to perform the functions of the job. BS/BA degree (or equivalent) in a related area as well as 0 to 2 years of experience in the field or in a related area. |
| | COSS | Technical Writer II | MS | **TECHNICAL WRITER II** Researches subject matter, writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) in a related area as well as 2 to 4 years of experience in the field or in a related area. |
| | COSS | Technical Writer III | MS | **TECHNICAL WRITER III** Researches subject matter, writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document. Familiar with standard concepts, practices, and procedures within a particular field. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 4 to 6 years of experience in the field or in a related area. |
| | COSS | Technical Writer IV | MS | **TECHNICAL WRITER IV** Researches subject matter, writes and edits material for reports, manuals, proposals, instructional material, catalogs, technical and outreach publications, and software and hardware documentations. Task may also include obtaining technical data from independent observation, reviews with staff members, and/or studies of published materials and existing documentation. Coordinate efforts of technical artists and illustrators in preparing reports, articles, and publications of internal and external distribution. Obtain background information on technologies, methods, and standards. Revises text and recommends changes in scope, format, and content to ensure conformance with established standards. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 6 to 8 years of experience in the field or in a related area. |

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| | COSS | Technical Writer V | MS | **TECHNICAL WRITER V** Researches subject matter, writes and edits material for reports, manuals, proposals, instructional material, catalogs, technical and outreach publications, and software and hardware documentations. Task may also include obtaining technical data from independent observation, reviews with staff members, and/or studies of published materials and existing documentation. Coordinate efforts of technical artists and illustrators in preparing reports, articles, and publications of internal and external distribution. Obtain background information on technologies, methods, and standards. Revises text and recommends changes in scope, format, and content to ensure conformance with established standards. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. Will very likely direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. |
| Engineering Support Services (ESS) | ESS | Engineer I | E | **ENGINEER I** Assists with the design, development, implementation, and analysis of technical products and systems. Performs engineering design evaluations. May develop a range of products. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) in a related area as well as 0 to 2 years of experience in the field or in a related area. |
| | ESS | Engineer II | E | **ENGINEER II** Assists with the design, development, implementation, and analysis of technical products and systems. Performs engineering design evaluations. May develop a range of products. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) in a related area as well as 2 to 4 years of experience in the field or in a related area. |
| | ESS | Engineer III | E | **ENGINEER III** Responsible for design, development, implementation, and analysis of technical products and systems. Performs engineering design evaluations. May develop a range of products. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. **A** wide degree of creativity and latitude is expected. May be required to lead and/or provide guidance to other engineers/technician. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 4 to 6 years of experience in the field or in a related area. |
| | ESS | Engineer IV | E | **ENGINEER IV** Provides expert judgment and analysis for the design, development and implementation of technical products and systems. Resolves highly complex technical issues, conducts advanced research, and identifies product/service innovations. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. May direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 6 to 8 years of experience in the field or in a related area. License and certification may be required. |
| | ESS | Engineer V | E | **ENGINEER V** Provides expert consultation in one or more areas for the design, development, analysis, and implementation of technical products and systems. Recognized as technical leader and resource. Responsible for all internal activities and product development. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. Will very likely direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. License and certification may be required. |
| | ESS | Chief Engineer | E | **CHIEF ENGINEER** Establishes the overall objectives and initiatives of an engineering department. Develops ideas for new products or product enhancements and oversees the creation and improvement of products that involve the engineering department. Provides engineering expertise to other departments where needed. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to CEO or top management. BS/BA degree (or equivalent) in a related area as well as 10+ years of experience in the field or in a related area. License and certification may be required. |

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| | ESS | Environmental Engineer I | E | **ENVIRONMENTAL ENGINEER I** Assists with planning, designing, and overseeing construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power-plants, water and sewage systems, and waste disposal units to solve environmental problems. Conducts research to identify and abate or eliminate sources of pollutants. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and engineers abatement operations, waste disposal sites, and reclaimation of contaminated land and water. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ESS | Environmental Engineer II | E | **ENVIRONMENTAL ENGINEER II** Assists with planning, designing, and overseeing construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power-plants, water and sewage systems, and waste disposal units to solve environmental problems. Conducts research to identify and abate or eliminate sources of pollutants. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and engineers abatement operations, waste disposal sites, and reclaimation of contaminated land and water. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) in plus 2 to 4 years experience in related field. |
| | ESS | Environmental Engineer III | E | **ENVIRONMENTAL ENGINEER III** Plans, designs, and oversees construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power-plants, water and sewage systems, and waste disposal units to solve environmental problems. Conducts research to identify and abate or eliminate sources of pollutants. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and engineers abatement operations, waste disposal sites, and reclaimation of contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | ESS | Environmental Engineer IV | E | **ENVIRONMENTAL ENGINEER IV** Plans, designs, and oversees construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power-plants, water and sewage systems, and waste disposal units to solve environmental problems. Conducts research to identify and abate or eliminate sources of pollutants. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and engineers abatement operations, waste disposal sites, and reclaimation of contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | ESS | Environmental Engineer V | E | **ENVIRONMENTAL ENGINEER V** Plans, designs, and oversees construction and maintenance of structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power-plants, water and sewage systems, and waste disposal units to solve environmental problems. Conducts research to identify and abate or eliminate sources of pollutants. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and engineers abatement operations, waste disposal sites, and reclaimation of contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Will very likely direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |

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| | ESS | Safety Engineer I | E | **SAFETY ENGINEER I** Assists with the development and coordination of environmental control activities affecting the organization and/or site-specific safety. Evaluates hazards and environmental risks. Advises management on steps to prevent or mitigate environmental issues in accordance with Federal, State, and local regulations. May develop and implement facility and/or site-specific safety programs. May inspect machinery, equipment, and working conditions in industrial or other setting to ensure compliance with OSHA regulations. May inspect specified areas for fire safety, fire-prevention equipment, and other safety and first-aid supplies. May test working areas for noise, toxic, and other hazards. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ESS | Safety Engineer II | E | **SAFETY ENGINEER II** Assists with the development and coordination of environmental control activities affecting the organization and/or site-specific safety. Evaluates hazards and environmental risks. Advises management on steps to prevent or mitigate environmental issues in accordance with Federal, State, and local regulations. May develop and implement facility and/or site-specific safety programs. May inspect machinery, equipment, and working conditions in industrial or other setting to ensure compliance with OSHA regulations. May inspect specified areas for fire safety, fire-prevention equipment, and other safety and first-aid supplies. May test working areas for noise, toxic, and other hazards. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ESS | Safety Engineer III | E | **SAFETY ENGINEER III** Develops and coordinates environmental control activities affecting the organization and/or site-specific safety. Evaluates hazards and environmental risks. Advises management on steps to prevent or mitigate environmental issues in accordance with Federal, State, and local regulations. May develop and implement facility and/or site-specific safety programs. May inspect machinery, equipment, and working conditions in industrial or other setting to ensure compliance with OSHA regulations. May inspect specified areas for fire safety, fire-prevention equipment, and other safety and first-aid supplies. May test working areas for noise, toxic, and other hazards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | ESS | Safety Engineer IV | E | **SAFETY ENGINEER IV** Develops and coordinates environmental control activities affecting the organization and/or site-specific safety. Evaluates hazards and environmental risks. Advises management on steps to prevent or mitigate environmental issues in accordance with Federal, State, and local regulations. May develop and implement facility and/or site-specific safety programs. May inspect machinery, equipment, and working conditions in industrial or other setting to ensure compliance with OSHA regulations. May inspect specified areas for fire safety, fire-prevention equipment, and other safety and first-aid supplies. May test working areas for noise, toxic, and other hazards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | ESS | Safety Engineer V | E | **SAFETY ENGINEER V** Develops and coordinates environmental control activities affecting the organization and/or site-specific safety. Evaluates hazards and environmental risks. Advises management on steps to prevent or mitigate environmental issues in accordance with Federal, State, and local regulations. May develop and implement facility and/or site-specific safety programs. May inspect machinery, equipment, and working conditions in industrial or other setting to ensure compliance with OSHA regulations. May inspect specified areas for fire safety, fire-prevention equipment, and other safety and first-aid supplies. May test working areas for noise, toxic, and other hazards. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Will very likely direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |

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| | ESS | Technical Specialist I | TS | **TECHNICAL SPECIALIST I** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as technical, such as electrical engineering, construction engineering, computer engineering, other engineering fields, chemistry, scientific research, and other related technical and engineering fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 2 to 4 years experience in related field. |
| | ESS | Technical Specialist II | TS | **TECHNICAL SPECIALIST II** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as technical, such as electrical engineering, construction engineering, computer engineering, other engineering fields, chemistry, scientific research, and other related technical and engineering fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 4 to 6 years experience in related field. |
| | ESS | Technical Specialist III | TS | **TECHNICAL SPECIALIST III** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as technical, such as electrical engineering, construction engineering, computer engineering, other engineering fields, chemistry, scientific research, and other related technical and engineering fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 6 to 8 years experience in related field. May require an advanced degree. |
| | ESS | Technical Specialist IV | TS | **TECHNICAL SPECIALIST IV** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as technical, such as electrical engineering, construction engineering, computer engineering, other engineering fields, chemistry, scientific research, and other related technical and engineering fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 8 to 10 years experience in related field. May require an advanced degree. |
| | ESS | Technical Specialist V | TS | **TECHNICAL SPECIALIST V** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as technical, such as electrical engineering, construction engineering, computer engineering, other engineering fields, chemistry, scientific research, and other related technical and engineering fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 10+ years experience in related field. May require an advanced degree. |
| | ESS | Software Engineer I | SWE | **SW ENGINEER I** Assists in design and coding of software product components, units, and modules according to detailed specifications. Participates in analysis and development of test plans. Tests assigned components and units. Provides test results and recommends corrections to senior developers. Requires practical knowledge of one or more platforms and operating systems, and of programming languages. Typically requires knowledge of one or more systems architectures. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ESS | Software Engineer II | SWE | **SW ENGINEER II** Assist in the design and coding of software products. Prepares comprehensive test plans. Conducts tests. Identifies and debugs relatively simple problems. Provides test results and recommends more complex corrections to senior developers. Codes enhancements and supports features. Participates in writing product and user documentation. Requires extensive knowledge of one or more platforms and operating systems, and of programming languages. Typically requires knowledge of one or more systems architectures. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |

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| | ESS | Software Engineer III | SWE | **SW ENGINEER III** Designs and codes software components, units, and modules that meet product specification and development schedules. Tests and debugs assigned components and units, Participated in large system and subsystem planning. Adheres to product build and release schedules and strategies. Acts as a technical resource for lower-level developers. Requires comprehensive knowledge of one or more platforms and operating systems, and of programming languages. Typically requires knowledge of one or more systems architectures. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | ESS | Software Engineer IV | SWE | **SW ENGINEER IV** Develops technical designs and specifications for software products. Researched and integrated design strategies, product specifications, development schedules, and user expectations into product capabilities. Uses software development technologies and tools to build, test, and maintain product modules, components, and subsystems. Provides technical leadership to lower-level developers. May provide product demonstrations and participate in trade shows and seminars. May require interaction with customers, vendors and external development partners. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | ESS | Software Engineer V | SWE | **SW ENGINEER V** Oversees technical design, development, and implementation of large projects and/or major software products and systems. Assists in defining architecture requirements and establishing standards for design and development. Consults with management and customers regarding product feasibility and viability of product plans and designs. Factors emerging technologies and product supportability into design and implementation. Serves as primary technical resource to development team. May act as team leader in prioritizing group tasks, determining individual assignments, and reviewing work of lower-level developers. Provides product demonstrations and participates in trade shows, seminars, industry panels, and user group meetings. Interacts with customers regarding strategies, requirements, problem solving, and support. This is normally the senior non-management developer level. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| Environmental Services (EVS) | EVS | Analyst I | A | **ANALYST I** Assists to solve computer, business, scientific, engineering, policy/compliance or other discipline system/process problems and enables system to meet the needs of the organization. Performs system studies to assist organization to realize maximum benefit from investments in equipment, personnel, and business processes or to comply with internal or external requirements. Plans and designs new systems/processes or devises ways to apply existing systems resources to additional operations. Analyzes requirements, procedures, and problems to improve existing system/processes. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | EVS | Analyst II | A | **ANALYST II** Assists to solve computer, business, scientific, engineering, policy/compliance or other discipline system/process problems and enables system to meet the needs of the organization. Performs system studies to assist organization to realize maximum benefit from investments in equipment, personnel, and business processes or to comply with internal or external requirements. Plans and designs new systems/processes or devises ways to apply existing systems resources to additional operations. Analyzes requirements, procedures, and problems to improve existing system/processes. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |

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| | EVS | Analyst III | A | **ANALYST III** Solves computer, business, scientific, engineering, policy/compliance or other discipline system/process problems and enables system to meet the needs of the organization. Performs system studies to assist organization to realize maximum benefit from investments in equipment, personnel, and business processes or to comply with internal or external requirements. Plans and designs new systems/processes or devises ways to apply existing systems resources to additional operations. Analyzes requirements, procedures, and problems to improve existing system/processes. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | EVS | Analyst IV | A | **ANALYST IV** Solves computer, business, scientific, engineering, policy/compliance or other discipline system/process problems and enables system to meet the needs of the organization. Performs system studies to assist organization to realize maximum benefit from investments in equipment, personnel, and business processes or to comply with internal or external requirements. Plans and designs new systems/processes or devises ways to apply existing systems resources to additional operations. Analyzes requirements, procedures, and problems to improve existing system/processes. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | EVS | Analyst V | A | **ANALYST V** Solves computer, business, scientific, engineering, policy/compliance or other discipline system/process problems and enables system to meet the needs of the organization. Performs system studies to assist organization to realize maximum benefit from investments in equipment, personnel, and business processes or to comply with internal or external requirements. Plans and designs new systems/processes or devises ways to apply existing systems resources to additional operations. Analyzes requirements, procedures, and problems to improve existing system/processes. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Will very likely direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | EVS | Environmental Scientist I | S | **ENVIRONMENTAL SCIENTIST I** Assist to conduct research to identify and abate or eliminate sources of pollutants that affect people, wildlife, and their environments. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and monitors waste disposal sites, preserves water supplies, and reclaims contaminated land and water. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | EVS | Environmental Scientist II | S | **ENVIRONMENTAL SCIENTIST II** Assist to conduct research to identify and abate or eliminate sources of pollutants that affect people, wildlife, and their environments. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and monitors waste disposal sites, preserves water supplies, and reclaims contaminated land and water. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |

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| | EVS | Environmental Scientist III | S | **ENVIRONMENTAL SCIENTIST III** Conducts research to identify and abate or eliminate sources of pollutants that affect people, wildlife, and their environments. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and monitors waste disposal sites, preserves water supplies, and reclaims contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | EVS | Environmental Scientist IV | S | **ENVIRONMENTAL SCIENTIST IV** Conducts research to identify and abate or eliminate sources of pollutants that affect people, wildlife, and their environments. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and monitors waste disposal sites, preserves water supplies, and reclaims contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | EVS | Environmental Scientist V | S | **ENVIRONMENTAL SCIENTIST V** Conducts research to identify and abate or eliminate sources of pollutants that affect people, wildlife, and their environments. Analyzes and reports measurements and observations of air, water, soil, and other sources to make recommendations on how best to clean and preserve the environment. Designs and monitors waste disposal sites, preserves water supplies, and reclaims contaminated land and water. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | EVS | Technician I | T | **TECHNICIAN I** Assists engineers/scientists in project efforts. Operates, constructs, maintains, and/or tests electrical/mechanical systems and components. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Typically works under immediate supervision. Primary job functions do not typically require exercising independent judgment. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), and 0-2 years of experience in the field or in a related area. |
| | EVS | Technician II | T | **TECHNICIAN II** Assists engineers/scientists in project efforts. Operates, constructs, maintains, and/or tests electrical/mechanical systems and components. Must be familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. A certain degree of creativity and latitude is required. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 2 to 4 years of experience in the field or related area. |
| | EVS | Technician III | T | **TECHNICIAN III** Assists engineers/scientists in project efforts. Operates, constructs, maintains, and/or tests electrical/mechanical systems and components. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 4 to 6 years of experience in the field or related area. |
| | EVS | Technician IV | T | **TECHNICIAN IV** Assists engineers/scientists in project efforts. Operates, constructs, maintains, and/or tests electrical/mechanical systems and components. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. May lead and direct others. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 6 to 8 years of experience in the field or related area. |

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| | EVS | Technician V | T | **TECHNICIAN V** Assists engineers/scientists in project efforts. Operates, constructs, maintains, and/or tests electrical/mechanical systems and components. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. Will likely lead and direct others. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 6 to 8 years of experience in the field or related area. |
| | EVS | UXO Safety Officer | QC | |
| | EVS | UXO Supervisor | QC | |
| | EVS | UXO Technician I | QC | The Unexploded Ordnance (UXO) Technician I will perform the following tasks: assist in performing reconnaissance and classification of UXO identification of U.S. and foreign guided missiles, bombs and bomb fuses, projectiles and projectile fuses, grenades and grenade fuses, rockets and rocket fuses, land mines and associated components, pyrotechnic items, military explosives and demolition materials. Work also requires that the incumbent perform location of subsurface UXO using military and/or civilian magnetometers, assists in performing excavation procedures on buried UXO, perform operator maintenance of military and/or civilian magnetometers. This technician will locate surface UXO using visual means, and assist in the following: transporting and storing UXO and demolition materials, preparing non-electric firing system for an UXO disposal operation, and preparing electric firing system for an UXO disposal operation disposing of ammunition/ explosives by burning. This worker is responsible for disposing of ammunition/explosives by detonation, assisting in the operation of a personnel decontamination station, wear appropriate personal protective equipment in contaminated areas, and assist in the inspection of salvage UXO-related material and erection of UXO-related protective works. |
| | EVS | UXO Technician II | QC | The Unexploded Ordnance (UXO) Technician II will perform: reconnaissance and classification of UXO, identification of U.S. and foreign guided missiles, bombs and bomb fuses, projectiles and projectile fuses, grenades and grenades fuses, rockets and rocket fuses, land mines and associated components, pyrotechnics, military explosives and demolition materials. This technician will locate subsurface UXO using military and/or civilian magnetometers, perform excavation procedures on buried UXO by manual and mechanical means, and perform operator maintenance of military and/or civilian magnetometers. This technician will also locate surface UXO using visual means, operate motor vehicle transporting UXO, prepare an on-site safe holding area for UXO, perform storage of UXO and demolition materials and prepare an UXO disposal site; prepare non-electric firing system for an UXO disposal operation, electric firing system for an UXO disposal operation, and a detonating cord firing system. The technician will dispose of UXO/explosives by burning and/or detonation, operate a personnel decontamination station, and wear appropriate personal protective equipment in contaminated areas. This worker will inspect salvage UXO-related material, erect UXO-related protective works, determine a magnetic azimuth using a lensatic compass, perform field expedient identification procedures to ID explosive-contaminated soil, perform emergency leak seal and packaging of chemical warfare material, and use radiographic (x-ray) equipment. |
| | EVS | UXO Technician III | QC | In this capacity, the technician will perform the following: reconnaissance and classification of UXO; identification of U.S. and foreign guided missiles, bombs and bomb fuses, projectiles and projectile fuses, grenades and grenade fuses, rockets and rocket fuses, land mines and associated components, pyrotechnic items, military explosives and demolition materials. The incumbent will supervise the location of subsurface UXO using military and/or civilian magnetometers, the excavation and recovery of subsurface UXO, construction of UXO-related protective works and the location of surface UXO by visual means. Work involves transporting and storing UXO assuring compliance with Federal, state, and local laws; disposal of UXO by burning/detonation, preparation of an UXO disposal site, and preparation of an on-site safe holding area for UXO. This incumbent will determine UXO-related storage compatibility, prepare an explosive storage plan, supervise donning and doffing of personal protective equipment; operation of a personnel decontamination station; maintenance and operator checks on all team equipment, prepare UXO related administrative reports according to standard operating procedures, and conduct daily team safety briefing. This worker supervises the segregation of UXO-related scrap from non-UXO related scrap, safe handling procedures, team preventive medicine and field sanitation procedures, perform risk hazard analyses, interpret x-ray of UXO, supervise field expedient identification procedures to ID explosive contaminated soil, the determining of a magnetic azimuth using a lensatic compass, and emergency leak sealing and packaging of chemical warfare material. |

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| Information Technology Support Services (ITSS) | ITSS | Configuration Management Specialist I | ITS | **CONFIGURATION MANAGEMENT SPECIALIST I** Assists with analyses of changes of product design to determine the effect on the end product design and function and determines and prepares documentation necessary for change. Coordinates with customers and manufacturers to determine a process for change reporting. Reviews released engineering change data and changes documenting activities to ensure adherence to configuration management procedures and policies. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Configuration Management Specialist II | ITS | **CONFIGURATION MANAGEMENT SPECIALIST II** Assists with analyses of changes of product design to determine the effect on the end product design and function and determines and prepares documentation necessary for change. Coordinates with customers and manufacturers to determine a process for change reporting. Reviews released engineering change data and changes documenting activities to ensure adherence to configuration management procedures and policies. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ITSS | Configuration Management Specialist III | ITS | **CONFIGURATION MANAGEMENT SPECIALIST III** Analyzes changes of product design to determine the effect on the end product design and function and determines and prepares documentation necessary for change. Coordinates with customers and manufacturers to determine a process for change reporting. Reviews released engineering change data and changes documenting activities to ensure adherence to configuration management procedures and policies. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 4 to 6 years experience in related field. |
| | ITSS | Configuration Management Specialist IV | ITS | **CONFIGURATION MANAGEMENT SPECIALIST IV** Analyzes changes of product design to determine the effect on the end product design and function and determines and prepares documentation necessary for change. Coordinates with customers and manufacturers to determine a process for change reporting. Reviews released engineering change data and changes documenting activities to ensure adherence to configuration management procedures and policies. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. May direct and lead others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | ITSS | Configuration Management Specialist V | ITS | **CONFIGURATION MANAGEMENT SPECIALIST V** Analyzes changes of product design to determine the effect on the end product design and function and determines and prepares documentation necessary for change. Coordinates with customers and manufacturers to determine a process for change reporting. Reviews released engineering change data and changes documenting activities to ensure adherence to configuration management procedures and policies. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 6 to 8 years experience in related field. |
| | ITSS | Database Administrator I | ITS | **DATABASE ADMINISTRATOR I** Assists with planning and coordinated administration of one or more large, centralized databases. Reviews database design and integration of host systems and makes recommendations for enhancements and improvements. Ensures accurate, appropriated, and effective use of data, including database structure, documentation, and operational guidelines. Performs audits to ensure accuracy and proper use of data in tables, applications, and supporting dictionaries. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |

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| | ITSS | Database Administrator II | ITS | **DATABASE ADMINISTRATOR II** Assists with planning and coordinated administration of one or more large, centralized databases. Reviews database design and integration of host systems and makes recommendations for enhancements and improvements. Ensures accurate, appropriated, and effective use of data. Performs audits to ensure accuracy and proper use of data. Matches user requirements with system capabilities. Develops and formulates standards, procedures, and conventions for database use. Works with technical/programming staff to ensure database security. Determines file organization, indexing methods, and security procedures for specific user applications. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ITSS | Database Administrator III | ITS | **DATABASE ADMINISTRATOR III** Reviews, evaluates, designs, implements and maintains company database[s]. Identifies data sources, constructs data decomposition diagrams, provides data flow diagrams and documents the process. Writes codes for database access, modifications, and constructions including stored procedures.Develops and formulates standards, procedures, and conventions for database use. Works with technical/programming staff to ensure database security. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Database Administrator IV | ITS | **DATABASE ADMINISTRATOR IV** Reviews, evaluates, designs, implements and maintains company database[s]. Identifies data sources, constructs data decomposition diagrams, provides data flow diagrams and documents the process. Writes codes for database access, modifications, and constructions including stored procedures. Develops and formulates standards, procedures, and conventions for database use. Works with technical/programming staff to ensure database security. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |
| | ITSS | Database Administrator V | ITS | **DATABASE ADMINISTRATOR V** Reviews, evaluates, designs, implements and maintains company database[s]. Identifies data sources, constructs data decomposition diagrams, provides data flow diagrams and documents the process. Writes codes for database access, modifications, and constructions including stored procedures. Develops and formulates standards, procedures, and conventions for database use. Works with technical/programming staff to ensure database security. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | ITSS | Database Specialist I | ITS | **DATABASE SPECIALIST I** Assists to design and build relational databases for data storage or processing. Develops strategies for warehouse implementation, data acquisition, and archive recovery. Cleans and maintains the database by removing and deleting old data. May evaluate new data sources for adherence to the organization's quality standards and ease of integration. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Database Specialist II | ITS | **DATABASE SPECIALIST II** Assists to design and build relational databases for data storage or processing. Develops strategies for warehouse implementation, data acquisition, and archive recovery. Cleans and maintains the database by removing and deleting old data. May evaluate new data sources for adherence to the organization's quality standards and ease of integration. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |

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| | ITSS | Database Specialist III | ITS | **DATABASE SPECIALIST III** Designs and builds relational databases for data storage or processing. Develops strategies for warehouse implementation, data acquisition, and archive recovery. Cleans and maintains the database by removing and deleting old data. May evaluate new data sources for adherence to the organization's quality standards and ease of integration. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Database Specialist IV | ITS | **DATABASE SPECIALIST IV** Designs and builds relational databases for data storage or processing. Develops strategies for warehouse implementation, data acquisition, and archive recovery. Cleans and maintains the database by removing and deleting old data. May evaluate new data sources for adherence to the organization's quality standards and ease of integration. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |
| | ITSS | Database Specialist V | ITS | **DATABASE SPECIALIST V** Designs and builds relational databases for data storage or processing. Develops strategies for warehouse implementation, data acquisition, and archive recovery. Cleans and maintains the database by removing and deleting old data. May evaluate new data sources for adherence to the organization's quality standards and ease of integration. May provide consultation on complex projects and is considered to be the top level contributor/specialist. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | ITSS | Enterprise System Architect I | SE | **ENTERPRISE SYSTEM ARCHITECT I** Assists with designing architecture for an organization on an enterprise level. Helps defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Enterprise System Architect II | SE | **ENTERPRISE SYSTEM ARCHITECT II** Assists with designing architecture for an organization on an enterprise level. Helps defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ITSS | Enterprise System Architect III | SE | **ENTERPRISE SYSTEM ARCHITECT III** Responsible for designing architecture for an organization on an enterprise level. Defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Enterprise System Architect IV | SE | **ENTERPRISE SYSTEM ARCHITECT IV** Responsible for designing architecture for an organization on an enterprise level. Defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |

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| | ITSS | Enterprise System Architect V | SE | **ENTERPRISE SYSTEM ARCHITECT V** Responsible for designing architecture for an organization on an enterprise level. Defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Recognized as technical leader and resource. A high degree of creativity and latitude is required. Relies on experience and judgment to plan and accomplish goals. Works under general supervision. Performs a variety of tasks. Will very likely direct and lead the work of others. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) in a related area as well as 8 to 10 years of experience in the field or in a related area. License and certification may be required. May require an advanced degree. |
| | ITSS | Chief Enterprise System Architect | SE | **CHIEF ENTERPRISE SYSTEM ARCHITECT** Responsible for designing architecture for an organization on an enterprise level. Defines system and application architecture and provides vision, problem anticipation, and problem solving ability to organization. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to CEO or top management. BS/BA degree (or equivalent) in a related area as well as 10+ years of experience in the field or in a related area. License and certification may be required. May require an advanced degree. |
| | ITSS | Help Desk Specialist I | ITS | **HELP DESK SPECIALIST I** Provides support to end users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks and monitors the problem to ensure a timely resolution. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor. AA degree (or equivalent) with 0 to 2 years experience in the field or in a related area. |
| | ITSS | Help Desk Specialist II | ITS | **HELP DESK SPECIALIST II** Provides support to end users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks and monitors the problem to ensure a timely resolution. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. AA degree (or equivalent) with 2 to 4 years experience in the field or in a related area. |
| | ITSS | Help Desk Specialist III | ITS | **HELP DESK SPECIALIST III** Provides support to end users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks and monitors the problem to ensure a timely resolution. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. AA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Help Desk Specialist IV | ITS | **HELP DESK SPECIALIST IV** Helps supervise the day-to-day operations of the help desk. Identifies, researches, and resolves complex technical problems. Creates and manages escalation procedures and ensures service levels are maintained. Documents, tracks, and monitors problems to ensure resolution in a timely manner. A level I supervisor is considered a working supervisor with little authority for personnel actions. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Help Desk Specialist V | ITS | **HELP DESK SPECIALIST V** Supervises the day-to-day operations of the help desk. Identifies, researches, and resolves complex technical problems. Creates and manages escalation procedures and ensures service levels are maintained. Documents, tracks, and monitors problems to ensure resolution in a timely manner. A level II supervisor has authority for personnel actions and oversees most day-t- day operations of group. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |

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| | ITSS | IT Security Specialist I | ITS | **IT SECURITY SPECIALIST I** Assists in the maintenance of systems to protect data from unauthorized users. Identifies, reports, and resolves security violations. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | IT Security Specialist II | ITS | **IT SECURITY SPECIALIST II** Assists in the maintenance of systems to protect data from unauthorized users. Identifies, reports, and resolves security violations. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ITSS | IT Security Specialist III | ITS | **IT SECURITY SPECIALIST III** Analyzes information security systems and applications and recommends and develops security measures to protect information against unauthorized modification or loss. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | IT Security Specialist IV | ITS | **IT SECURITY SPECIALIST IV** Responsible for developing and managing Information Systems security, including disaster recovery, database protection and software development. Analyzes information security systems and applications and recommends and develops security measures to protect information against unauthorized modification or loss. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |
| | ITSS | IT Security Specialist V | ITS | **IT SECURITY SPECIALIST V** Ensures that all system platforms are functional and secure. Works with upper management to determine acceptable level of risk for enterprise computing platforms. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | ITSS | IT/Computer Specialist I | ITS | **IT/COMPUTER SPECIALIST I** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as information technology, computer programming, computer security, computer systems analysis, database management, information systems, Internet applications and development, software development, and related fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 2 to 4 years experience in related field. |
| | ITSS | IT/Computer Specialist II | ITS | **IT/COMPUTER SPECIALIST II** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as information technology, computer programming, computer security, computer systems analysis, database management, information systems, Internet applications and development, software development, and related fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 4 to 6 years experience in related field. |
| | ITSS | IT/Computer Specialist III | ITS | **IT/COMPUTER SPECIALIST III** Conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as information technology, computer programming, computer security, computer systems analysis, database management, information systems, Internet applications and development, software development, and related fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 6 to 8 years experience in related field. |

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| | ITSS | IT/Computer Specialist IV | ITS | **IT/COMPUTER SPECIALIST IV** Consults with client or department heads to define need or problem, conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as information technology, computer programming, computer security, computer systems analysis, database management, information systems, Internet applications and development, software development, and related fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 8 to 10 years experience in related field. |
| | ITSS | IT/Computer Specialist V | ITS | **IT/COMPUTER SPECIALIST V** Consults with client or department heads to define need or problem, conducts research, performs studies and surveys to obtain data, and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. Requires knowledge in fields defined as information technology, computer programming, computer security, computer systems analysis, database management, information systems, Internet applications and development, software development, and related fields. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. BS/BA degree (or equivalent) in appropriate specialty plus 10+ years experience in related field. |
| | ITSS | Network Engineer I | SE | **NETWORK ENGINEER I** Provides technical support in the installation and maintenance of employer's or customer's Local Area Network (LAN). Assists in the evaluation of hardware and software, including peripheral, output, and telecommunications equipment. Installs network hardware and software, including network operating systems. Monitors data communications to ensure that network is available to all users. Troubleshoots and resolves routine problems. Generally responsible for maintaining a simple network of 25 or fewer nodes, or for a section of a larger network. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Network Engineer II | SE | **NETWORK ENGINEER II** Install, maintains, and coordinates the use of employer's or customer's Local Area or Wide Area Network (LANWAN). Evaluates hardware and software, including peripheral, output, and telecommunications equipment. Enforces security procedures, installs network software, and manages network performance. Troubleshoots and resolves complex problems. Implements and coordinated network policies, procedures, and standards. Trains users. Generally responsible for maintaining moderately complex networks of 25 to 100 nodes. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. May require certification as a network engineer. |
| | ITSS | Network Engineer III | SE | **NETWORK ENGINEER III** Installs and maintains complex networks that typically link numerous computing platforms, operating systems, and network topologies across widely dispersed geographic areas. Evaluates hardware and software suitable for large, complex networks. Tests and implements interface programs. Develops security procedures. Manages network performance. Troubleshoots and resolves complex problems to ensure minimal disruption of mission-critical applications. Maintains fault-tolerant systems and manages systems backups. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. Typically requires certification as a network engineer and may require extensive expertise across hardware and systems supplies by multiple vendors. |

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| | ITSS | Network Engineer IV | SE | **NETWORK ENGINEER IV** Installs and maintains complex networks that typically link numerous computing platforms, operating systems, and network topologies across widely dispersed geographic areas. Evaluates hardware and software suitable for large, complex networks. Tests and implements interface programs. Develops security procedures. Manages network performance. Troubleshoots and resolves complex problems to ensure minimal disruption of mission-critical applications. Maintains fault-tolerant systems and manages systems backups. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. Typically requires certification as a network engineer and may require extensive expertise across hardware and systems supplies by multiple vendors. |
| | ITSS | Network Engineer V | SE | **NETWORK ENGINEER V** Installs and maintains complex networks that typically link numerous computing platforms, operating systems, and network topologies across widely dispersed geographic areas. Evaluates hardware and software suitable for large, complex networks. Tests and implements interface programs. Develops security procedures. Manages network performance. Troubleshoots and resolves complex problems to ensure minimal disruption of mission-critical applications. Maintains fault-tolerant systems and manages systems backups. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. Typically requires certification as a network engineer and may require extensive expertise across hardware and systems supplies by multiple vendors. |
| | ITSS | Programmer Analyst I | SWE | **PROGRAMMER ANALYST I** Reviews, analyzes, and modifies programming systems including encoding, testing, debugging and installing to support an organization's application systems. Consults with users to identify current operating procedures and to clarify program objectives. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a project leader or manager. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Programmer Analyst II | SWE | **PROGRAMMER ANALYST II** Reviews, analyzes, and modifies programming systems including encoding, testing, debugging and installing to support an organization's application systems. Consults with users to identify current operating procedures and to clarify program objectives. May be expected to write documentation to describe program development, logic, coding, and corrections. Writes manuals for users to describe installation and operating procedures. Familiar with relational databases and client-server concepts. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Requires proficiency in programming languages. BS/BA degree in a related area (or equivalent), and 2 to 4 years of related experience. |
| | ITSS | Programmer Analyst III | SWE | **PROGRAMMER ANALYST III** Reviews, analyzes, and modifies programming systems including encoding, testing, debugging and installing to support an organization's application systems. Consults with users to identify current operating procedures and to clarify program objectives. May be expected to write documentation to describe program development, logic, coding, and corrections: Writes manuals for users to describe installation and operating procedures. Must have a working knowledge of relational databases and client-server concepts. A wide degree of creativity and latitude is expected. Requires proficiency in programming languages. May lead and direct others. BS/BA degree in a related area (or equivalent), and 4 to 6 years of related experience. |

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| | ITSS | Programmer Analyst IV | SWE | **PROGRAMMER ANALYST IV** Works with users to identify current operating procedures and clarify program objectives. Outlines steps required for program development, including diagrams and charts. Writes program documentation and operations guidelines. Provides technical guidance to lower-level analyst/programmers. Requires comprehensive knowledge of programming techniques, networked and centralized operating systems, and the capabilities of enterprise database products and development suites. May team with external consultants in the development of unique applications that meet employer's requirements. Requires detailed and comprehensive knowledge of employer's applications and systems. A wide degree of creativity and latitude is expected. Requires proficiency in programming languages. May lead and direct others. BS/BA degree in a related area (or equivalent), and 6 to 8 years of related experience. |
| | ITSS | Programmer Analyst V | SWE | **PROGRAMMER ANALYST V** Leads lower-level analyst/programmers and other technical staff on a large, complex internal development project or serves as lead analyst/programmer on numerous smaller projects and systems. Typically a senior internal technical consultant who directs program development in complex applications and systems where existing architectures and techniques provide little guidance. Consults with user management and technical staff as necessary to clarify program intent, identify problems, suggest changes, and determine required coding. Assigns, coordinates and reviews work of lower-level analyst/programmers in advanced techniques. Prescribes standard to simplify interpretation of programs and documentations. Supervises preparation of records and reports. Requires detailed and comprehensive knowledge of employer's applications and systems. A wide degree of creativity and latitude is expected. Requires proficiency in programming languages. BS/BA degree in a related area (or equivalent), and 8 to 10 years of related experience. |
| | ITSS | System Administrator I | SE | **SYSTEMS ADMINISTRATOR I** Maintains data files and control procedures for a simple system of networked personal computers or for a group of desktop computers linked to a host server. Responsible for system security and data integrity. Assigns passwords and monitors use of resources. Back up files as required. May produce periodic business reports, generate output such as labels, letters, and forms, and respond to frequent management request for information. May require extensive knowledge of software such as Microsoft Office and similar suites of business applications. May be a resident expert for applications running on a department-wide LAN or for the entire computer system in a smaller enterprise. BS/BA degree (or equivalent), plus 0 to 2 years in related field. |
| | ITSS | System Administrator II | SE | **SYSTEMS ADMINISTRATOR II** Maintains data files and control procedures for a simple system of networked personal computers or for a group of desktop computers linked to a host server. Responsible for system security and data integrity. Assigns passwords and monitors use of resources. Back up files as required. May produce periodic business reports, generate output such as labels, letters, and forms, and respond to frequent management request for information. May require extensive knowledge of software such as Microsoft Office and similar suites of business applications. May be a resident expert for applications running on a department-wide LAN or for the entire computer system in a smaller enterprise. BS/BA degree (or equivalent), plus 2 to 4 years in related field. |
| | ITSS | System Administrator III | SE | **SYSTEMS ADMINISTRATOR III** Installs new software releases, system upgrades, evaluates and installs patches and resolves software related problems. Performs system backups and recovery. Maintains data files and monitors system configuration to ensure data integrity. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Familiar with standard concepts, practices, and procedures within a particular field. May lead or direct others. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | System Administrator IV | SE | **SYSTEMS ADMINISTRATOR IV** Installs new software releases, system upgrades, evaluates and installs patches and resolves software related problems. Performs system backups and recovery. Maintains data files and monitors system configuration to ensure data integrity. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Familiar with standard concepts, practices, and procedures within a particular field. May lead or direct others. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |

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| | ITSS | System Administrator V | SE | **SYSTEMS ADMINISTRATOR V** Installs new software releases, system upgrades, evaluates and installs patches and resolves software related problems. Performs system backups and recovery. Maintains data files and monitors system configuration to ensure data integrity. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Familiar with standard concepts, practices, and procedures within a particular field. Will likely will lead or direct others. BS/BA degree in a related area (or equivalent), and 8 to 10 years of experience in the field or in a related area. |
| | ITSS | System Engineer I | SE | **SYSTEMS ENGINEER I** Assists more senior engineers with development, design, and analysis of work that may include logic design, circuit design, instrumentation design, firmware development, model formulation, manufacturing and development cost projections, computer architecture analysis and design, network structure design, and analog or binary systems engineering. Projects may include fabrication, modification, and evaluation of components or circuitry for use in electronic equipment. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | System Engineer II | SE | **SYSTEMS ENGINEER II** Performs standard engineering development, design, and analysis of work such as logic design, circuit design, I/O design, instrumentation design, firmware development, model formulation, cost projection, computer architecture analysis and design, network structure design, and systems engineering. Projects may include fabrication, modification, and evaluation of components or circuitry for use in electronic equipment. May be assigned to interact with client engineers, respond to technical questions and requests from customers, and implement systems at customer sites. BS/BA degree in related field (or equivalent) and 2 to 4 years related experience. |
| | ITSS | System Engineer III | SE | **SYSTEMS ENGINEER III** Performs non-standard engineering analysis, development and design work that requires considerable engineering skill, creative ability, and independent judgment. May provide technical supervision to lower level engineers and technical staff. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | System Engineer IV | SE | **SYSTEMS ENGINEER IV** Performs a full range of engineering tasks represented by the activities listed under less senior engineering positions. Work requires a high degree of creative ability and engineering and programming skills. May coordinate and lead the work of subordinate engineers on assigned projects. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |
| | ITSS | System Engineer V | SE | **SYSTEMS ENGINEER V** Performs engineering work in the research, development, analysis, and design of products and systems. Interacts at the highest levels with client engineers and customers. Work requires the highest degree of creative ability, engineering and programming skills, and independent judgment. Will likely coordinate and technically lead projects and subordinated engineers. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | ITSS | Web Designer/Developer I | MS | **WEB DESIGNER/DEVELPER I** Assists with website design and creation. Helps plan, design, develop, test, edit, maintain, and document look and flow of websites. Interviews clients to help them clarify their goals for establishing a website. Designs or supervises design of digitized images, banners, bullets, charts, image maps and other graphics to enhance appearance of site. May require knowledge of programming techniques and computer internet systems. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |

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| | ITSS | Web Designer/Developer II | MS | **WEB DESIGNER/DEVELPER II** Assists with website design and creation. Helps plan, design, develop, test, edit, maintain, and document look and flow of websites. Interviews clients to help them clarify their goals for establishing a website. Designs or supervises design of digitized images, banners, bullets, charts, image maps and other graphics to enhance appearance of site. May require knowledge of programming techniques and computer internet systems. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Works under general supervision. BS/BA degree (or equivalent) plus 2 to 4 years experience in related field. |
| | ITSS | Web Designer/Developer III | MS | **WEB DESIGNER/DEVELPER III** Performs website design and creation. Plans, designs, develops, tests, edits, maintains, and documents look and flow of websites. Interviews clients to help them clarify their goals for establishing a website. Designs or supervises design of digitized images, banners, bullets, charts, image maps and other graphics to enhance appearance of site. Requires knowledge of programming techniques and computer internet systems. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Familiar with standard concepts, practices, and procedures within a particular field. May lead or direct others. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in the field or in a related area. |
| | ITSS | Web Designer/Developer IV | MS | **WEB DESIGNER/DEVELPER IV** Performs website design and creation. Plans, designs, develops, tests, edits, maintains, and documents look and flow of websites. Interviews clients to help them clarify their goals for establishing a website. Designs or supervises design of digitized images, banners, bullets, charts, image maps and other graphics to enhance appearance of site. Requires knowledge of programming techniques and computer internet systems. Performs a variety of tasks. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. Familiar with standard concepts, practices, and procedures within a particular field. May lead or direct others. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in the field or in a related area. |
| | ITSS | Web Designer/Developer V | MS | **WEB DESIGNER/DEVELPER V** Controls all technical aspects of website, including performance issues, such as speed of access, and approving site content. May also have responsibilities for site design and creation. Plans, develops, tests, edits, maintains, documents and controls content, look, and flow of websites. Applies knowledge of programming techniques and computer internet systems. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| | ITSS | Web Programmer I | MS | **WEB PROGRAMMER I** Assists with planning, designing, developing, testing, editing, maintaining, and documenting web programs. Applies knowledge of programming techniques and computer internet systems. Formulates plans outlining steps required to develop program, using structured analysis and design. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision and guidance. BS/BA degree (or equivalent) plus 0 to 2 years experience in related field. |
| | ITSS | Web Programmer II | MS | **WEB PROGRAMMER II** Assists with planning, designing, developing, testing, editing, maintaining, and documenting web programs. Applies knowledge of programming techniques and computer internet systems. Formulates plans outlining steps required to develop program, using structured analysis and design. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 2 to 4 years of experience in related field. |
| | ITSS | Web Programmer III | MS | **WEB PROGRAMMER III** Plans, designs, development, tests, edits, maintains, and documents web programs. Applies knowledge of programming techniques and computer internet systems. Formulates plan outlining steps required to develop program, using structured analysis and design. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 4 to 6 years of experience in related field. |

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| | ITSS | Web Programmer IV | MS | **WEB PROGRAMMER IV** Plans, designs, development, tests, edits, maintains, and documents web programs. Applies knowledge of programming techniques and computer internet systems. Formulates plan outlining steps required to develop program, using structured analysis and design. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. May lead and direct the work of others. Typically reports to a project leader or manager. A wide degree of creativity and latitude is expected. BS/BA degree in a related area (or equivalent), and 6 to 8 years of experience in related field. |
| | ITSS | Web Programmer V | MS | **WEB PROGRAMMER V** Plans, designs, development, tests, edits, maintains, and documents web programs. Applies knowledge of programming techniques and computer internet systems. Formulates plan outlining steps required to develop program, using structured analysis and design. Familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. A wide degree of creativity and latitude is expected. Very likely directs and leads others. Works under general supervision. Typically reports to a manager or head of a unit/department. BS/BA degree (or equivalent) plus 8 to 10 years experience in related field. |
| Science Support Services (SSS) | SSS | Data Technician I | ITS | **DATA TECHNICIAN I** Collects, reviews, and inputs data into a computer processing system; audits output data. May be expected to code data and input data for computer processing. Identifies and resolves production related errors. Maintains and revises procedural lists, control records and coding schemes to process source data. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor. HS degree (or equivalent) plus 0 to 2 years experience in related field. |
| | SSS | Data Technician II | ITS | **DATA TECHNICIAN II** Collects, reviews, and inputs data into a computer processing system; audits output data. May be expected to code data and input data for computer processing. Identifies and resolves production related errors. Maintains and revises procedural lists, control records and coding schemes to process source data. Must be familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. A certain degree of creativity and latitude is required. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 2 to 4 years of experience in the field or related area. |
| | SSS | Data Technician III | ITS | **DATA TECHNICIAN III** Collects, reviews, and inputs data into a computer processing system; audits output data. May be expected to code data and input data for computer processing. Identifies and resolves production related errors. Maintains and revises procedural lists, control records and coding schemes to process source data. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 4 to 6 years of experience in the field or related area. |
| | SSS | Data Technician IV | ITS | **DATA TECHNICIAN IV** Collects, reviews, and inputs data into a computer processing system; audits output data. May be expected to code data and input data for computer processing. Identifies and resolves production related errors. Maintains and revises procedural lists, control records and coding schemes to process source data. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. May lead and direct others. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 6 to 8 years of experience in the field or related area. |
| | SSS | Data Technician V | ITS | **DATA TECHNICIAN V** Collects, reviews, and inputs data into a computer processing system; audits output data. May be expected to code data and input data for computer processing. Identifies and resolves production related errors. Maintains and revises procedural lists, control records and coding schemes to process source data. Must be familiar with a variety of the field's concepts, practices, and procedures. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Typically reports to a supervisor or manager. A wide degree of creativity and latitude is expected. Will likely lead and direct others. May be required to complete an apprenticeship and/or formal training in area of specialty. HS diploma (or equivalent), with 6 to 8 years of experience in the field or related area. |

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| | SSS | GIS Specialist I | ITS | **GIS SPECIALIST I** Utilizes Geographic Information System techniques to provide a better understanding of certain variables in a given geographic location. Extracts data from GIS software and uses varying analysis methods to arrive at results. Recommends appropriate reactionary strategies in response to GIS analysis. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CADD drafters and technicians. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 0 to 2 years of experience in related area. |
| | SSS | GIS Specialist II | ITS | **GIS SPECIALIST II** Utilizes Geographic Information System techniques to provide a better understanding of certain variables in a given geographic location. Extracts data from GIS software and uses varying analysis methods to arrive at results. Recommends appropriate reactionary strategies in response to GIS analysis. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CADD drafters and technicians. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 2 to 4 years of experience in related area. |
| | SSS | GIS Specialist III | ITS | **GIS SPECIALIST III** Utilizes Geographic Information System techniques to provide a better understanding of certain variables in a given geographic location. Extracts data from GIS software and uses varying analysis methods to arrive at results. Recommends appropriate reactionary strategies in response to GIS analysis. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CADD drafters and technicians. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 4 to 6 years of experience in related area. |
| | SSS | GIS Specialist IV | ITS | **GIS SPECIALIST I**V Utilizes Geographic Information System techniques to provide a better understanding of certain variables in a given geographic location. Extracts data from GIS software and uses varying analysis methods to arrive at results. Recommends appropriate reactionary strategies in response to GIS analysis. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CADD drafters and technicians. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 6 to 8 years of experience in related area. |
| | SSS | GIS Specialist V | ITS | **GIS SPECIALIST V** Utilizes Geographic Information System techniques to provide a better understanding of certain variables in a given geographic location. Extracts data from GIS software and uses varying analysis methods to arrive at results. Recommends appropriate reactionary strategies in response to GIS analysis. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CADD drafters and technicians. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. Ver likely will lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 8 to 10 years of experience in related area. |
| | SSS | Scientific Programmer I | SWE | **SCIENTIFIC PROGRAMMER I** Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 0 to 2 years of experience in related area. |

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| | SSS | Scientific Programmer II | SWE | **SCIENTIFIC PROGRAMMER II** Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 2 to 4 years of experience in related area. |
| | SSS | Scientific Programmer III | SWE | **SCIENTIFIC PROGRAMMER III** Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 4 to 6 years of experience in related area. |
| | SSS | Scientific Programmer IV | SWE | **SCIENTIFIC PROGRAMMER IV** Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 6 to 8 years of experience in related area. |
| | SSS | Scientific Programmer V | SWE | **SCIENTIFIC PROGRAMMER V** Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. Ver likely will lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 8 to 10 years of experience in related area. |
| | SSS | Scientist I | S | **SCIENTIST I** Perform routine technical tasks using standard scientific methods and techniques. Provide support to analyze, design, code, and document computer applications used for scientific projects. Provide technical science and engineering support in the areas of data acquisition and reduction, equipment maintenance and repair, and information display for scientific analysis. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 0 to 2 years of experience in related area. |
| | SSS | Scientist II | S | **SCIENTIST II** Perform scientific analysis/research in support of more senior level scientists. Analyze, design, code, and document computer applications used for scientific projects. Provide technical science and engineering support in the areas of data acquisition and education, equipment maintenance and repair, and information display for scientific analysis. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under imm |

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| | SSS | Scientist III | S | **SCIENTIST III** Perform complex scientific research and analysis. Analyze, design, code, and document complex computer applications used for scientific projects. Provide advanced technical science and engineering support in the areas of data acquisition and reduction, equipment maintenance and repair, and information display for scientific analysis. Support the design, development, and test of complex instruments for scientific measurements. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 4 to 6 years of experience in related area. May require an advanced degree. |
| | SSS | Scientist IV | S | **SCIENTIST IV** Conduct advanced scientific research and analyses to solve physical problems. Analyze, design, code, and document complex computer applications used for scientific projects. Perform the design, development, and test of complex instruments for scientific measurements. Contribute to scientific papers to be published in refereed scientific publications and/or presented at scientific conferences. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. May lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 6 to 8 years of experience in related area. May require an advanced degree. |
| | SSS | Scientist V | S | **SCIENTIST V** Lead advanced scientific research and analyses to solve physical problems. Lead efforts to analyze, design, code, and document complex applications for computers appropriate to scientific projects. Lead the design, development, and test of complex instruments for scientific measurements. Author papers to be published in refereed scientific publications and/or presented at scientific conferences. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision. Ver likely will lead and direct others. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. BS/BA degree (or equivalent) and 8 to 10 years of experience in related area. May require an advanced degree. |
| | SSS | Chief Scientist | S | **CHIEF SCIENTIST** Establishes the overall objectives and initiatives of a science department. Leads advanced scientific research and analyses to solve physical problems. Leads efforts to analyze, design, code, and document complex applications for computers appropriate to scientific projects. Lead the design, development, and test of complex instruments for scientific measurements. Author papers to be published in refereed scientific publications and/or presented at scientific conferences. Provides scientific expertise to other departments where needed. Demonstrates expertise in a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to CEO or top management. BS/BA degree (or equivalent) in a related area as well as 10+ years of experience in the field or in a related area. May require an advanced degree. |