National Geospatial-Intelligence Agency (NGA)

Human Development Directorate (HD)

Task Order (TO): 0006

Statement of Work (SOW) Version 3.0

05 November 2020

TABLE OF CONTENTS

SOW Version	Change	Section	Date
2.0	Updated Background	1.1	4/23/20
2.0	Updated Scope	1.2	4/23/20
2.0	Updated Description of Work	3.0	4/23/20
2.0	Updated App. A/App. B, removed Integration engineer, changed 2 positons to Systems Engineers	App. A/App. B	4/23/20
3.0	Updated Weekly Meeting to Biweekly and added Telework section	3.6.2 and 4.1	11/5/20

1.0 Introduction

This Statement of Work (SOW) supports a Task Order (TO) procurement of Systems Engineering (SE) support for the Advanced Capabilities Office (HDS) and the National Geospatial-Intelligence College (HDN) within the National Geospatial-Intelligence Agency's (NGAs), Human Development (HD) Directorate. Introduction, background, objectives and scope material contained in the Base NEE SOW are applicable to this TO. The contractor shall provide all appropriate support to assist accomplishment of the requirements stated below.

1.1 Background

The Human Development Directorate (HD) recruits, hires, develops, recognizes, and retains a professional, highly skilled, and diverse workforce to support current and future mission needs. HD is committed to quality customer service, offering benefits, nurturing leaders, and providing academic programs to GEOINT professionals within the National System for Geospatial-Intelligence.

NGC: The National Geospatial-Intelligence College (HDN/NGC) is a learning institution that provides training programs to GEOINT professionals within the National System for Geospatial Intelligence (NSG). It employs more than 350 faculty and staff who train ~15,000 students each year. The College curriculum includes more than 1700 courses, delivered by classroom and web-based instruction. Classroom instruction is delivered at two main campuses, plus several Extended Learning Sites. Additionally, College mobile training teams augment on-campus

instruction by offering timely and relevant training support to the military services, combatant commands and IC professionals around the world.

In October 2001, NGC was accredited by the Council on Occupational Education (COE); a national accreditor. Since then, NGC has continuously maintained its status as one of approximately 40 nationally accredited DoD institutions.

Accreditation has two fundamental purposes:

- To assure the quality of the institution and its programs and
- To assist in continuous improvement

To maintain its accredited status, NGC must abide by specific educational standards and criteria established by COE. Today, these standards serve as the foundation for NGC's operating policies and procedures.

HDS: The Advanced Capabilities Office supports HD's technical and non-technical capabilities over the full life-cycle from concept to delivery and retirement. HDS works closely and collaborates with other offices within and external to HD to facilitate end-to-end user–driven design and customer care for future human capital systems. HDS collects, analyzes, and processes IT requirements in accordance with HD and Corporate governance processes, best practices and policies.

1.2 Scope

The Contractor shall perform SE work in accordance with the requirements specified in this task order. A brief description of the engineering activities to be supported under this Task Order are as follows:

- **HD Solutions Documentation Engineering.** The NEE contractor shall define the orchestration of systems and services across the HD Enterprise relevant to delivery of the functions required to satisfy HD operational capabilities and HD mission activities.
- **HD Requirements Engineering.** The NEE contractor shall provide services to develop, document, decompose and allocate requirements to establish and enable HD mission solutions (e.g., Statements of Capabilities (SOCs), Capabilities Description Documents (CDDs), etc.) The NEE contractor shall collaborate/support the NGA Segment Engineering (NSE) contractor in tracing System and Software Requirements Documents (SysRDs and SRDs) to Enterprise requirements.
- **HD Integration Engineering (Cross Organization and Program Office).** The NEE contractor shall provide Cross Organization and Program Office integration services to ensure discrete program and project level solutions come together seamlessly to deliver comprehensive mission capabilities.
- **HD Capability Analysis and Assessment.** The NEE contractor shall provide services to perform Capabilities-based Analysis, and AoAs, Trade Studies, and Engineering

Assessments as required by HD's Solutions Delivery partners (e.g., CIO-T, DSR, and others defined by the Government).

2.0 Applicable Documents

Applicable documents specified in this section are required for execution of the work described in the TO SOW. These documents provide additional detail to those listed in the Base SOW.

2.1 Compliance Documents

Refer to Base SOW.

2.2 Reference Documents

Refer to Base SOW.

3.0 Description of Work

3.1 Solutions-level Documentation Support

Defining the orchestration of systems and services across the HD Enterprise relevant to delivery of the functions required to satisfy HD operational capabilities and HD mission activities. This shall include the identification of functions, services, requirement responsibility and interface definitions in an IT Project Plan complete with timelines, funding requirements, dependencies (both technical and non-technical) and other pertinent details as may be defined by the government. .

a. Support HD Hire-to Retire (H2R) effort:
    i. Provide engineering assistance in preparing for implementation of enhanced technology solutions for H2R effort
    ii. Assist in developing artifacts that succinctly translate strategic HD objectives into executable projects to include phased roadmaps, architectural diagrams, capability models, and system views.
    iii. Assist in reviewing, revising, documenting and implementing business processes using government and industry best practices
    iv. Assist HD in developing a strategy to implement technology and automation enhancements
b. Provide recommendations for program investments.
c. Assist the Government in planning the transition from paper based processes to digital representations.

3.1.1 Executable Project Plans Development and Support

Activities necessary to build, manage and execute time-phased, Project Plans that identify the development journey to future capabilities.

Executable Project Plan activities the contractor shall support in the performance of this Task Order include, but are not limited to:

a. Define, develop, document and maintain the time-phased activities required to achieve the required capability(ies) captured via the HD Requirements Intake and Management processes.
b. Coordinate across all appropriate elements of NGA
c. Coordinate with internal and external service providers to advance HD requirements capability delivery

3.2 Requirements Engineering

HD requires support in Strategic, Enterprise, and Capabilities-level Requirements Engineering. Resources applied against this effort shall assist the Government in aligning traceability of capabilities and needs through developing, documenting, decomposing and allocating strategic level requirements to establish and enable HD mission solutions for all HD components and users. The collective requirements engineering activity is inclusive of agile techniques to define requirements using capabilities, epics, features and user stories and must be compliant with HD, CIO-T, DSR and other applicable governance processes, frameworks and policies. This service includes top-down and bottom-up planning and coordination with respect to retiring legacy entities into receiving, future entities.

Requirements Engineering includes support for, but is not limited to, the strategic, enterprise, and capabilities-level requirements engineering activities that follow.

3.2.1 High-Level Requirements Engineering Support

The contractor shall support the Government in developing, documenting, decomposing and allocating mission needs from strategic to implementable requirements to establish and enable HD mission solutions.

The contractor shall support High-Level Requirements Engineering activities in the performance of this Task Order to include, but are not limited to:

a. Support the continued development, maintenance, and documentation of all HD requirements/needs repositories, digital representations, and documents.
b. Support the decomposition and allocation of all HD requirements/needs to integration and Enterprise level requirement repositories, digital representations, and documents. This shall include the decomposition of high-level needs, epics, and requirements into implementable features and user stories which Program Offices, programs and projects

will use to develop their program backlogs features and user stories for implementation using the most appropriate and efficient systems engineering approach.

c. Populate and manage an HD Requirements Database to provide a centralized location to capture all requirements and requirements documentation.
d. Comply with the HD Requirements Management Process for managing requirements which provides multi-directional traceability and allows for managing changes to the established requirements baseline.
e. Manage requirements artifacts in collaboration with the appropriate and authoritative NGA entities.
f. Validate decomposed, allocated requirements from the strategic documents to solution programs, segments and projects and coordinate with the user to confirm perceived intent and further develop requirements.
g. Coordinate with users and stakeholders to develop requirements for HD mission needs and to propose viable solutions to HDS government leads for each request.
h. Document and trace system requirements, design, analysis, and verification and validation activities from concept through solution levels beginning in the conceptual design phase and continuing throughout the systems engineering life cycle, development, testing and delivery phases.
i. Define, evaluate, and document information security requirements for new HD IT initiatives and cyber capabilities.

3.2.2 Capabilities Requirement Analysis (Legacy Requirement) Support

The NEE contractor shall provide services to support the Government in ensuring new strategic, functional, or operational capabilities address enduring requirements currently serviced by legacy entities.

The contractor shall support Capabilities Requirement Analysis (Legacy Requirement) activities in the performance of this Task Order to include, but are not limited to:

a. Decompose legacy system capabilities into their constituent parts, services, components, and functions as well as interfaces to other systems, consumer relationships and required data exchanges.
b. Identify and validate legacy capabilities that will persist into the future and ensure they are reflected within the To-Be architecture developed by CIO-T and technical roadmaps that capture the systems or enterprise services that will perform or absorb the capability.
c. Assess technical roadmap timelines to ensure they include the end of the legacy contract and the start of the follow-on/enduring system or enterprise service contract and identify potential gaps/overlaps in critical functionality.

d. Conduct capabilities retirement analysis engineering activity.
e. Perform divestment analyses to identify overlapping capabilities or existing functions that can be absorbed into enduring/new systems to minimize duplication.

3.3 HD Integration Engineering (Cross Organization and Program Offices)

The Contractor shall provide support under the HD Integration Engineering (Cross Organization and Program Office) requirement to assist the Government with the integration of program and project solutions that cut across organization boundaries, Program Offices budget programs, development contracts and sensor segments; and therefore; requiring a corporate approach to integration ensuring the multiple parts come together seamlessly to deliver integrated solutions consistent with technical roadmaps defining the path to the To-Be Architecture. It shall include interface/service definition support (both internal and external to the agency) to recommend, develop, document, and implement the necessary interfaces to achieve the NGA vision described in the GEOINT CONOPS 2022 (to include future CONOPS) and CIO-T Strategy 2022 (and future strategies). Enterprise Integration Engineers also work with Program Offices Engineers to integrate and synchronize individual program, segment, and project solutions across the enterprise and ensure enterprise epic completion.

Enterprise Integration Engineering includes support for, but is not limited to, the enterprise integration engineering activities that follow.

3.3.1 Enterprise Integration and Modernization Support

The contractor shall support Enterprise Integration and Modernization activities of this Task Order to include, but are not limited to:

a. Provide engineering, integration, and architecture analysis to support modernization efforts that incorporate standards-based, Commercial Off the Shelf (COTS) technology (e.g. ESRI's ArcGIS) as the platform for both server and desktop components. Ensure alignment with the To-Be Architecture. Provide expertise to application development and create digital models/representation/documentation as appropriate to assist NGA modernization initiatives.
b. Support NGC Training Environment Modernization initiative:
    i. Provide engineering support to improve the NGC's IT Infrastructure and migrate NGC's web instances to the cloud on all NGA network domains
    ii. Perform Requirements Engineering to capture HD and NGC IT requirements, Analysis of Alternatives (AoA), and Feasibility Study to support the NGC Modernization efforts
    iii. Manage HD and NGC software licenses
    iv. Conduct research on new technology and make recommendation for implementation to improve NGC training delivery capability

c. Support the government modernization efforts by defining the interfaces between programs and pilots to ensure a cohesive workflow.
d. Support pilot program execution to inform modernization systems development and service integration. Support engineering activities during development to ensure correctness and completeness of requirements. Capture changes in the HD Enterprise Requirement repositories and digital models/representations. Support the transition to an operational capability.
e. Develop and maintain integration project plans and schedules for each Modernization effort to make certain that program, project, and/or segment requirements and schedules are aligned and baselined to ensure end-to-end system integration.

3.4 HD Capabilities Analysis and Assessments

The NEE contractor shall provide services to perform Capabilities-based Analysis, and AoAs, Trade Studies, and Engineering Assessments as required by HD's Solutions Delivery partners (e.g., CIO-T, DSR, and others defined by the Government).

3.4.1 Capabilities-based Analysis

The NEE contractor shall provide services to analyze HD's legacy systems and the capabilities and services they provide and develop well-defined and executable Legacy System Retirement Plans (LSRPs) for the smooth transition of the capabilities and services enduring, new or other systems or retirement as appropriate.

Capabilities-based Analysis activities the contractor shall support in the performance of this Task Order include, but are not limited to:

a. Support top-down, enterprise coordination and planning to retire legacy entities into receiving entities (future providers).
b. Perform legacy system retirement analyses to ensure conformance to evolving solutions and enterprise architectures and enterprise integration.
c. Collaborate with Capability Analysis and Pre-Acquisition Engineering Activities and recommend time-phased retirement of legacy systems.
d. Coordinate legacy system retirements through appropriate governance authorities, Program Management Office (PMOs) and Business/Product Owners.
e. Support the retirement of legacy systems and capabilities by contributing to retirement and transition plans and their associated change artifacts to ensure the coordinated deactivation and disposal of hardware, software, and documentation, ensuring no unplanned capability impacts.
f. Perform analysis on requirements for retiring systems to ensure enduring requirements are identified and allocated to to-be architecture service groups and Program Offices.

g. Inform governance authorities, PMOs and Business/Product Owners on "priority" decisions such that necessary retirement activities are addressed in program/segment/project schedules and the necessary release bandwidth for retirement-enabling services is in place.

3.4.2 AoAs, Trade Studies and Engineering Assessments

The NEE contractor shall provide services to perform AoAs, trade studies comparison and assessments of the operational effectiveness, suitability, risk, lifecycle costs, technology maturity, security and other critical factors of system, software, service, methodology choices impacting the HD mission. These analyses, studies and assessment activities are closely linked to and are an integral part of determining sound courses of action/acquisition strategies.

AoAs, Trade Studies and Assessments shall include the following, but is not limited to:

a. Plan and conduct in-depth AoA, trade study comparison, and assessments/studies. These assessments must take into consideration the operational effectiveness, suitability, risk, lifecycle costs, technology maturity, security and other critical factors of systems, software, services, and methodology choices which impact the HD mission.
b. Conduct in-depth verification and validations, and adjudication of recommendations in previously completed AoAs, trade studies, and engineering studies.

3.5 Transition

3.5.1 Transition Plan

As part of the transition, the contractor shall provide a staffing plan detailing the onboarding of all personnel identified in Appendix A. The plan shall describe the contractor employee names, company, clearance information, polygraph information, and dates of submittal into e-Nom.

The Contractor shall comply with the guidance in the table below.

Table 1: Transition Availability

Calendar Days After Award	Contractor Personnel
7 Days & 14 Days	• All Key Personnel eNomination Requests (eNom) submitted (within 7 days) and available for task order performance (within 14 days).
15 Days	• At least 25% of all staff eNom submitted and available for task order performance.
30 Days	• At least 50% of all staff eNom submitted and available for task order performance.

Calendar Days After Award	Contractor Personnel
45 Days	• At least 75% of all staff eNom submitted and available for task order performance.
60 Days	• 100% of all staff eNom submitted and available for task order performance.

3.5.1.1 Security Onboarding

The Contractor's key personnel and any other personnel requiring access to classified systems shall have active Top Secret and be Sensitive Compartmented Information (TS/SCI) eligible at contract award.

To minimize the risk of a delay in supporting transition startup, the Contractor's Security Office shall use the NGA eNomination system to nominate employees for personnel security clearances, facility badges, and system access. Upon security clearance approval, the Contractor shall schedule their personnel for clearance briefing and badges with the appropriate office(s) at NGA.

3.5.1.2 Sensitive Compartmented Information Facility (SCIF)

Any SCIF(s) that will be utilized to perform SCI work at contract sites must be coordinated with the CO and NGA Physical Security Team 7 days after award to ensure NGA authorization and accreditation is granted for NEE work to be performed in the contractor SCIF. Note: All SCI work performed at a Contractor site must be performed in either an NGA accredited Sensitive Compartmented Information Facility (SCIF) or an Other Government Agency (OGA) SCIF that has either a Memorandum of Agreement (MOA), Memorandum of Understanding (MOU), Joint Use Agreement or Co-Use Agreement with NGA for this effort.

3.5.2 Transition Closeout

The Contractor shall support transition to another Contractor as directed by the Government (commencing 30 Days before the end of the contract). The Contractor shall review and transition knowledge and relevant information concerning enterprise engineering, architecture, and integration and standard operating procedures. The Contractor shall provide at a minimum the following items by the end of the contract in accordance with Government direction:

- Hardware and software development documentation that provides a comprehensive detailed description of the current operational baseline for each security domain. The documentation will at a minimum, contain the following: systems architecture, CM, software configuration, COTS integration, and capture of the hardware and software architectures.

- Operating system and application software with annotated source code for each security domain, including software under current development or test that is yet to be deployed. The Contractor shall provide the software in an industry standard format such as Microsoft TFS.
- Operational system data and database information, both current and historical, including user account data, metadata catalogs, stored imagery and products, system diagrams, and knowledge bases.

The Contractor shall conduct an organized transfer of Government-furnished equipment (GFE), Government-furnished property (GFP), and Government-furnished information (GFI), to include manufacturer maintenance agreements and software licenses as directed by the CO. The Contractor shall generate a report containing the final disposition of all NGA property.

The Contractor shall support the decommissioning and disposal of all Information Technology (IT) systems as directed by the Government. The Contractor shall follow NGA's Decommissioning Disposal Review (DDR) process that is specific for hardware and software. The Contractor shall follow all processes in the DDR checklist for hardware and software, including maintenance of a Property Book to keep hand receipts, review signatures, and other acceptance criteria.

3.6 Deliverables

The following sub-sections describe each of the Contract Data Requirements List (CDRL) documents required in support of this contract. A brief summary of these CDRLs is also shown in table form in the CDRL Matrix of this document.

3.6.1 Kick-Off Meeting

The contractor shall schedule a kick-off meeting with the CO, PM, COR, and GPOC within 10 calendar days of task order award.

3.6.2 Biweekly Meetings

A biweekly telecom will be held at the discretion of the GPOC with the PM and GPOC to discuss status. The biweekly telecoms will be held throughout the entire performance. The Contractor shall provide an agenda, identify any issues and document action items.

3.6.3 Quarterly Reviews

The contractor shall conduct Quarterly Program Management Reviews (PMR) of the data generated in preparation of the Status Report to address quarterly data and other pertinent management information. The review shall include Government requested information and shall include, but is not limited to:

a. Contract management reporting

b. Task progress and Funding Status Report
c. Control of the contractual task order (dollars and labor hours) and distribution
d. Projected changes in manpower and redistribution based on customer organization needs, manpower and recruiting summary
e. Security issues
f. Contractual action items
g. Task order accounting data documentation
h. Report by task order element of hours/rates by discipline and skill level and by labor category
i. Comparison of proposed travel costs to actual travel costs for each task order element
j. Comparison of total contract funding to invoiced services
k. Any special interest items requested by the Government or provided at the contractor's initiative
l. Metrics as defined by the government to demonstrate contractor performance against defined tasks and deliverables and to provide government with insight into volumes, trends and workloads
m. Task Order Requirements Review (as needed)

These reviews may also address, in general, the efforts, challenges, problems, and accomplishments of contractor personnel in the respective task areas. The contractor shall provide the PMR agenda and briefing slides three (3) business days prior to the meeting and PMR minutes within five (5) calendar days following the meeting. Government program and contract management may require other compilations of data to ensure adequate insight into the task order execution. This review shall be held with the PMO, CO and task order COR.

3.6.4 Monthly Financial Report (MFR)

The Monthly Financial Report (MFR) shall provide a summary of all program activity. The report will have specific content by task order and with contract expenditures, rates, and estimated cost at complete (EAC).

3.6.5 Monthly Staffing Report (MSR)

As part of the Monthly Staffing Report (MSR), the contractor shall provide one (1) electronic softcopy of an updated staffing report. The MSR supports the tracking of contractor's proposed personnel (i.e., designated position number or identifier, Prime/Sub-contractor, name, labor category, start/end date, office, geographical location, and other fields of information as may be determined at a later date). A template for the MSR will be provided.

3.6.6 Monthly Activity Report (MAR)

The contractor shall submit a technical monthly activity report (MAR) to the COR no later than the 15th of each month.

3.6.7 Technical Exchange Meetings (TEM)

The contractor shall schedule and support technical exchange meetings to collaborate and coordinate technical planning. The contractor shall record and submit minutes from the meetings.

3.6.8 CDRL Matrix

The CDRL Deliverable List, shown in the table below is a list of all Contractor-provided deliverables that shall be met throughout the contract. All deliverables will be submitted in formats compatible with Adobe or Microsoft Office products. Softcopy delivery (via e-mail, etc.) is the preferred method of exchange for electronic copies. Deliveries will be made to the PM, CO, COR and/or Alternate COR (ACOR) as specified in the table below.

CDRL Title	CDRL #	SOW Section	First Submission	Updates	Delivered to	Format and number of deliverables
Quarterly Program Management Reviews	001	3.7.3	Award +120 Days	Quarterly	PM/CO/COR	1 Electronic Copy to PMO Email Address Contractor Defined, Government Approved
Monthly Financial Report	002	3.7.4	Award +30 Days	Monthly	COR/GPOC	1 Electronic Copy to PMO Email Address Contractor Defined, Government Approved
Monthly Staffing Report	003	3.7.5	Award +30 Days	Monthly	COR/GPOC	1 Electronic Copy to PMO Email Address Government Defined
Monthly Activity Report	004	3.6.7	Award +30 Days	Monthly	COR/GPOC	1 Electronic Copy to appropriate TM Email Address(es) Contractor Defined, Government Approved
Transition Plan	005	3.5.2	Award + 7 days	As Required	PM/CO/COR	1 Electronic Copy to PMO Email Address Contractor Defined, Government Approved
Reports, Briefings, Evaluations, Technical Assignments, Transition Plan, Minutes, White Papers Etc.	006	3.0	As Required	As Required	COR, GPOC	1 Electronic Copy to PMO Email Address, or applicable Technical Monitor Contractor Defined, Government Approved

3.7 Labor

Refer to Appendices A and B for estimated number of staff, overall description of work, duties, skills and education.

4.0 General Provisions

4.1 Primary Place of Performance

The primary place(s) of performance for this Task Order are NCE, NCW, NGC Extended Learning Sites, and Washington Metropolitan Area (WMA) (Contractor facility, as approved in advance, by government). Other work locations will be considered if conducive to the effective performance of work. Possible examples of justified alternative work locations include primary locations of corporate SCIF, Lab or test/demonstration facilities. The contractor shall receive prior written approval for the alternative work location from the COR.

See the listing in Appendix B: Position Descriptions

Telecommuting (Telework)

Refer to the NEE BASE IDIQ SOW Section 9.1

4.2 Government Furnished Property (GFP)

The Government will provide the following GFP for Task Order 0006:

Hardware: Hardware will be provided by the Government. For Contractors located at the Government site (on-site), this includes access to thin client COE and SBU networks; unclassified and classified VoIP phones, and printers.

For Contractors located at the Contractor-provided site (off-site), this includes (at a minimum): High side/classified/COE: thin clients, monitors, VoIP phones, and printers. Note for Contractors located at the Contractor-provided site (off-site): This does NOT include unclassified equipment (phones, computers, etc.). The costs associated with these needs are the responsibility of the Contractor.

Tools/Software: Any tools/software required by the Contractor, not currently identified will have to go through the NGA Software Whitelist Assurance Process (SWAP) for approval prior to being placed on any NGA systems. The Contractor will be expected to use the provided tools/software to execute the TO 0006 SOW requirements until such time any new tools/software are approved and available for operational use on NGA systems.

For both on-site and off-site, the Government will provide a standard profile of Office productivity tools that includes Microsoft Office, Adobe Reader and 7-Zip file manager.

Data: The Government will provide access to all available NGA data to support the requirements of the Task Order 0006 SOW.

Access: The Government will facilitate access to Government facilities (to include badges) provided that the need for the access is validated and the security requirements of the contract are met. If other personnel security accesses are required, the Government will provide the sponsorship for additional accesses. The Government will provide access to information and data, relative to the tasks required to include sponsoring classified network connectivity.

4.3 Foreign Contacts

Refer to the Base SOW.

5.0 Security

Refer to the Base SOW.

6.0 Key Personnel

The positions highlighted in blue in Appendix A are Key Personnel, subject to the Key Personnel clause included in the base contract.

7.0 Travel and Other Direct Costs (ODCs)

Refer to the Base SOW section 9.3 and Section H.4 in the Base contract. Travel is NTE $25,000.

Appendix A: Anticipated Support Requirements

The requirements needed to adequately support this Task Order are listed in the table below. Position description information for government-defined labor is provided in Appendix B. The location column indicates the primary work location for contractor personnel.

Government Defined (O&M)

Position ID*	Location	Position Description #	TO Section	FTE	Skill Level	Service Category	Job Title
01-06-HDSE-0001	NCE	1	All	1	4–Expert	Engineering and Architecture	Systems Engineer
01-06-HDSE-0002	NCE	1	All	1	4–Expert	Engineering and Architecture	Systems Engineer
01-06-HDSE-0003	NCE	2	All	1	3-Senior	Engineering and Architecture	Systems Engineer
01-06-HDSE-0004	NCE	2	All	1	3-Senior	Engineering and Architecture	Systems Engineer

Appendix A Key:

Signifies Key Personnel Position 

AA-BB-CCCC-1234 (First Column of Table)

Characters	Description
AA	Statement of Work Number
BB	Task Order Number
CCCC	Organization Code Position Supports
1234	Position Number

Skill level definitions for each service category are defined as follows. While the experience requirements for each level are the same across each service category, the associated labor rates may not be. Unless otherwise stated in Appendix B, default to the table below anytime the word "experience" is used in a position description to verify the number of years required.

Skill Level	Total Experience (in years)
4 - Expert	18+
3 - Senior	12+ to 18
2 - Mid	6+ to 12
1 - Junior	0 to 6

Experience may be substituted for academic degrees on a case-by-case basis with approval by the Contracting Officer, Contracting Officer's Representative (COR), and Government Point-of-Contact (GPOC).

These lists of job titles should be considered a sample and are not all inclusive.

Senior Management

Sample job titles may include, but are not limited to: Program Manager, Technical Lead Integrator, Business Process Manager, Functional Specialist Advisor

Engineering and Architecture

Sample job titles may include, but are not limited to: Integration Engineer, Software Engineer, Enterprise Architect, Data Architect, Data Scientist, Data Modeler, Cyber Security Engineer, Systems Analyst, Systems Architect, Systems Engineer, Systems Integrator, Network Systems Engineer, Cloud Architect, Cloud Engineer, Human System Integrator

IT Engineering

Sample job titles may include, but are not limited to: Configuration Manager, Computer Programmer, Tech Writer, Software Quality Assurance Specialist, Schedule Analyst

Administration

Sample job titles may include, but are not limited to: Database Administrator, Web Administrator

Appendix B: Position Descriptions

Position 1: **Systems Engineer (Expert-Level)**

Overall Assignment Description:

Expert Systems Engineers assist in leading engineering teams in taking a multi-discipline approach to requirements engineering, solutions engineering, scheduling, reliability, resiliency, services development, integration, test and evaluation, maintainability and analysis across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

Duties include:

- Assists the Government in directing requirements engineering, solutions engineering, scheduling, reliability, resiliency, services development, integration, test and evaluation, maintainability and analysis across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
- Assists with the planning, analysis/traceability of user requirements, architectures traceability, procedures, and problems to automate or improve existing systems and review cloud service capabilities, workflow, and scheduling limitations.
- Advises the Government on proposed changes to the solutions designs based on analysis of requirements and new technology.
- Assists the Government in the capture and translation of mission and customer requirements/needs into systems/capability requirements and solutions.
- Supports the analyses and allocation of requirements to systems architecture components and executing programs.
- Assists the Government in performing systems integration activities.
- Assist in leading Analysis of Alternatives (AoAs), Course of Actions (CoAs), Trade Studies, and Engineering Assessments.
- Assists the Government in strategic technical planning, project management, performance engineering, risk management and interface design.
- Provides expert advice to the Government in the areas of relating vision, strategy, plans, needs, requirements, and process and capability developments.
- Operates at the level of integrating multiple Major Systems Acquisitions across organizational, agency, department, and governmental/national boundaries.
- Demonstrated knowledge of the current NSG/ASG and NRO enterprises.

- Oversees and coordinates the work of Senior-, Mid-, and Junior-level contractor Systems Engineers.

Skills and Experience:

Required:

- Bachelor's degree in Systems Engineering or in related technical or scientific fields such as engineering, physics, mathematics, operations research, engineering management, Computer Science, Information Technology, Management Information Systems, or related STEM degree program.
- Expert-level experience in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or system engineering of large complex System of Systems or Service Oriented Architecture/Cloud environments.
- Demonstrated Experience with the systems engineering lifecycle.

Desired:

- Master's degree in Systems Engineering or in related technical or scientific fields such as engineering, physics, mathematics, operations research, engineering management, Computer Science, Information Technology, Management Information Systems, or related STEM degree program.
- Demonstrated experience with Model Based Systems Engineering, processes, tools and languages.
- Demonstrated experience with Software Development Frameworks.
- Possesses INCOSE Certified System Engineering Professional (CSEP) certification.
- Experience in the field of geospatial intelligence.
- Possesses a Licensure as a professional engineer.
- Possesses Membership or leadership participation in any of the following professional organizations:
    - ACSM
    - ASCE
    - ASPRS
    - OGC
    - SAREM
    - USGIF
- Demonstrated experience in the field of geospatial intelligence.
- Demonstrated experience engineering solutions using Cloud-based technologies.
- Demonstrated experience engineering solutions using structured and unstructured Big Data.
- Demonstrated experience engineering solutions using Automation, Augmentation and Artificial Intelligence technologies.

- Demonstrated experience in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.

Position 2: **Systems Engineer (Senior -Level)**

Overall Assignment Description:

Senior-level Systems Engineers guide engineering teams in taking a multi-discipline approach to requirements engineering, solutions engineering, scheduling, reliability, resiliency, services development, integration, test and evaluation, maintainability and analysis across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

Duties include:

- Guides Mid-level and Junior-level system engineers performing requirements engineering, solutions engineering, scheduling, reliability, resiliency, services development, integration, test and evaluation, maintainability and analysis across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
- Guides the planning, analysis/traceability of user requirements, architectures traceability, procedures, and problems to automate or improve existing systems and review cloud service capabilities, workflow, and scheduling limitations.
- Guides Mid-level and Junior-level system engineers developing solutions designs based on analysis of requirements and new technology.
- Assists the Government in the capture and translation of mission and customer requirements/needs into systems/capability requirements and solutions.
- Supports the analyses and allocation of requirements to systems architecture components and executing programs.
- Assists the Government in performing systems integration activities.
- Conducts Analysis of Alternatives (AoAs), Course of Actions (CoAs), Trade Studies, and Engineering Assessments.
- Assists the Government in strategic technical planning, project management, performance engineering, risk management and interface design.
- Operates at the level of integrating multiple systems, services, processes, and interfaces within a Major Systems Acquisitions across organizational and agency boundaries

Skills and Experience:

Required:

- Bachelor’s degree in Systems Engineering or in related technical or scientific fields such as engineering, physics, mathematics, operations research, engineering management, Computer Science, Information Technology, Management Information Systems, or related STEM degree program.

- Senior-level experience in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or system engineering of large complex System of Systems or Service Oriented Architecture/Cloud environments.
- Demonstrated experience with the systems engineering lifecycle.

Desired:

- Master's degree in Systems Engineering or in related technical or scientific fields such as engineering, physics, mathematics, operations research, engineering management, Computer Science, Information Technology, Management Information Systems, or related STEM degree program.
- Demonstrated experience with Model Based Systems Engineering, processes, tools and languages.
- Demonstrated experience with Software Development Frameworks.
- Possesses INCOSE Certified System Engineering Professional (CSEP) certification.
- Demonstrated experience in the field of geospatial intelligence.
- Possesses a Licensure as a professional engineer.
- Possesses Membership or leadership participation in any of the following professional organizations:
    - ACSM
    - ASCE
    - ASPRS
    - OGC
    - SAREM
    - USGIF
- Demonstrated experience in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
- Demonstrated experience with the current NSG/ASG and NRO enterprises.