National Geospatial-Intelligence Agency (NGA)

**CIO and IT Services (CIO-T)**



**Specific Requirements for Sensor Integration Office (TAS)**

**Task Order (TO): 0011**

**Statement of Work (SOW)**

**29 January 2020**

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# Introduction

This Statement of Work (SOW) supports a Task Order (TO) procurement of Systems Engineering and Integration (SE&I) support for the Sensor Integration Office (TAS), part of the Architecture and Engineering Group (TA) within the National Geospatial-Intelligence Agency’s (NGAs), CIO/IT Services (CIO-T) 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.

## Background

TAS provides SE&I services that deliver mission capabilities to ensure NGA meets the GEOINT requirements of its IC, National System for Geospatial-Intelligence (NSG), Allied System for Geospatial-Intelligence (ASG) and DoD customers. TAS is home to the Integration System Program Office (TASP) and the Sensor Integration Division (TASS). TAS interfaces with the following Key Enterprise NGA positions: Chief Engineer, Chief Architect, Chief Data Officer; and Governance forums: Engineering Review Board (ERB) and Configuration Control Board (CCB).

## Scope

The Contractor shall perform SE&I services work in accordance with the requirements specified in this task order. The Contractor shall apply Model-Based Systems engineering (MBSE) methods and tools and support the Government with integration efforts across the enterprise. A brief description of the engineering activities to be supported under this Task Order are as follows:

* **Enterprise and Solution Architecture Engineering.** The NEE contractor shall provideservices to plan, design, define, develop, document and baseline the GEOINT Enterprise Architecture (GEA), inclusive of Business, Data, Network, Security and Solutions-Level Architectures down to the program level ensuring enterprise systems work together in an integrated fashion to deliver mission capabilities and solutions.
* **Enterprise Level Requirements Engineering.** The NEE contractor shall provide services to develop, document, decompose and allocate strategic requirements to establish and enable GEOINT Mission Solutions (e.g., GEOINT Enterprise Capabilities Documents (ECDs), Statements of Capabilities (SOCs), Intelligence Capability Baseline Description (ICBD), Capabilities Description Documents (CDDs), Capability-Oriented Requirement (COR) sets, Service-Oriented Requirement (SOR) sets, and Agile Frameworks. 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.
* **Enterprise 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.
* **Enterprise Analysis and Assessment.** The NEE contractor shall provide services to perform Capabilities-based Analysis, Business Engineering (Pre-Acquisition Engineering) and AoAs, Trade Studies, and Engineering Assessments.
* **Modeling, Simulation & Analysis (MS&A).** The NEE contractor shall provide services to the Government for Modeling, Simulation and Analysis (MS&A). The contractor shall build and maintain digital representations of architectures, systems, services, subsystems, and components supporting GEOINT and use software to conduct performance, capacity, and proof-of concept MS&A across the NGA, National System for Geospatial-Intelligence (NSG), Allied System for Geospatial-Intelligence (ASG), commerce, and Mission Partner paradigms.

# 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.

## Compliance Documents

Refer to Base SOW.

## Reference Documents

Refer to Base SOW.

# Description of Work

## 3.1 Integration of Sensor Acquisition Programs with the Enterprise and Solutions Architecture Engineering

TAS requires SE&I support in integrating Sensor Acquisition Programs with Strategic, Enterprise, and Solutions-level Architecture Engineering. Engineer and Architect resources applied against this effort shall assist the Government in ensuring Sensor Acquisition Programs are included in the planning, designing, defining, developing, documenting and baselining of the GEOINT Enterprise Architecture (GEA), inclusive of business, data, network, security, solutions-level sub-architectures and interfaces between systems, to ensure enterprise systems work together in an integrated fashion to deliver mission capabilities and solutions. Key activities of the Integration of Sensor Acquisition Programs with the Enterprise and Solutions Architecture Engineering may include the following: planning, design, and systems engineering work necessary to build and portray the To-Be Architecture; the development of conceptual, logical and physical architecture and technical roadmaps defining the time-phased schedule for the path of systems and services for the integration of Sensor Acquisition Programs into the Enterprise Architecture; and identifying necessary updates to program, segment and project-based solution-level architectures consistent with the enterprise-level architecture.

Integration of Sensor Acquisition Programs with the Enterprise, and Solutions Architecture Engineering Support includes support for, but is not limited to, the strategic, enterprise, and solutions-level architecture engineering activities that follow.

### Integration of Sensor Acquisition Programs with the Enterprise Architecture Support

The GEOINT Enterprise Architecture is the authoritative source of information that guides and constrains solutions architectures, services, and data so that it may be responsive to stakeholder requirements. This architecture information informs Government decisions on a number of critical activities including planning, programming, budgeting, and mission execution. Architecture information also supports key engineering services such as requirements decomposition and inter/intra segment integration. The NEE Integration of Sensor Acquisition Programs with the Enterprise Architecture activities for TAS will be executed in collaboration with the NEE Enterprise Architecture team for TAED to ensure consistency across tools, data, methods, outcomes, etc.

Integration of Sensor Acquisition Programs with the Enterprise Architecture activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Provide updates to Enterprise-level digital models/representations architectures that capture Sensor Project requirements.
2. Assist the Government in assessing proposed changes to the Enterprise Architecture and provide roadmaps to balance cost, schedule and performance.
3. Ensure the Sensor Programs are maintained and documented in the GEOINT Enterprise Architecture (GEA).
4. Ensure the Sensor Programs are maintained and documented in the NGA, NSG, ASG, United Stated Government (USG), commercial and foreign partner As-Is and To-Be Architectures consistent with the NGA GEOINT CONOPs 2022 (and future CONOPS)~~.~~ NGA will maintain interfaces to Government and Commercial architectures.
5. Define, develop, recommend, and support implementation approaches ensuring optimized cloud architecture(s).
6. Recommend, instantiate and operate architecture tools that support analysis and decision making through architecture data in the form of models, simulations, reports and views so that stakeholders may use architecture data in either the acquisition or development lifecycle to answer investment and divestment questions.
7. Create appropriate and effective architecture information and artifacts (in accordance with the Department of Defense Architecture Framework (DoDAF) and the Intelligence Community’s (IC) Program Architecture Guidance (PAG)) that are relevant and usable across the NGA, NSG, ASG, USG, commercial, and foreign partners.
8. Assess architectural artifacts and components for compliance with NGA, NSG, ASG, USG, commercial and foreign partner standards as appropriate and provide recommendations on resolving deficiencies, gaps, and/or recommended enhancements. Ensure that the architecture is compliant with NGA’s U. S. Code 50, Section 3023 requirement.
9. Use the Joint Architecture Reference Models (JARM) to describe, analyze, and identify potential architectural service gaps, support AOA, leverage existing resources, and assist with invest and divest decisions for the agency.
10. Use MBSE methods and tools to build and maintain digital systems models of services, components, systems and subsystems across the NGA, NSG, ASG, USG, commercial and foreign partners. Use MBSE to link requirement and design artifacts to solution and enterprise level architectures.
11. Advise the Government by utilizing the enterprise architecture and artifacts to improve the quality of NGA’s investments and engineering decisions. Assist with alignment of Sensor Program strategy and planning with the Agency's business and mission goals.
12. Manage and maintain the necessary processes and tools for automated maintenance and management of architecture artifacts within the repository for the enterprise.
13. Ensure the Sensor Program’s architecture documentation is managed in collaboration with the Configuration Management function executed within NGA Foundational Engineering (NFE).

### Integration of Sensor Acquisition Programs with the Solutions-level Architecture Support

The next level of architecture decomposition below Enterprise Architecture defining the orchestration of systems and services across the Enterprise to deliver the functions required to satisfy operational capabilities and mission activities. It includes the allocation of functions, services, requirement responsibility and interface definitions to the appropriate time phased architecture, technical roadmap, To Be Architecture and program.

Integration of Sensor Acquisition Programs with the Solutions-level Architecture activities the contractor shall provide in the performance of this Task Order include, but are not limited to:

1. Provide input to solutions-level architecture digital models/representations that fulfill Sensor program requirements and provide solutions that balance cost, schedule and performance across the enterprise.
2. Analyze architecture information to provide recommendations for program investments and solution-level architecture and engineering.
3. Build, vet, and baseline Sensor solutions-level architectures consistent with the enterprise architecture.
4. Conduct systems analysis to support re-use or development of like capabilities across the enterprise baseline to gain functional and cost efficiencies. Shall ensure solutions do not duplicate functionality or diverge from NGA business and IT strategies.
5. Collaborate with Office/Program Office/Project Engineering and Foundational Systems Engineering to understand program, segment, and project timelines for the delivery of capabilities and to ensure the current architecture baseline and To-Be Architecture supports capabilities when they are delivered.
6. Maintain the baselined special access program (SAP) architecture and support transition activities from this architecture framework into the Intelligence Community Information Technology Enterprise (IC ITE), other clouds and NSG integration in increments, and as approved by the Government. The Contractor shall support the migration of CAP/SAP Sensor Project architectures into the NGA/NSG To-Be Architecture.
7. Develop and document necessary quick reaction architecture Sensor Project requirements for warfighter support capabilities and initiatives in appropriate enterprise architecture baselines.
8. Assist the Government in architecting and planning the transition from paper based processes to digital representations integrating architectures, requirements, integration, scheduling, budgeting and other data needed for systems engineering in a Standards based format.

### Executable Technical Roadmap Development and Support

Activities necessary to build, manage and execute time-phased, technical roadmap(s) that identify the development journey to future Sensor Project capabilities.

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

1. Define, develop, document and maintain the time-phased, strategic and technical roadmap(s) that integrate and move Sensor Programs from the current As-Is Architecture to the To-Be Architecture and current mission capabilities to future mission capabilities.
2. Coordinate across all elements of the NGA, NSG, ASG, USG, commercial and foreign partners’ GEOINT Infrastructure Service Provider (ISP)/Application Service Provider (ASP) response to identify dependencies (on- premise and in the cloud) in support of architectural decisions.
3. Coordinate with service providers to integrate changes into the Sensor Programs Technical Roadmap.

### Business Architecture Support

Activities defining the GEOINT business model and its components to include governance, business processes, and business information. It aligns Sensor Program strategic vision, goals and objectives with GEOINT Doctrine, policy, regulations, organizations, capabilities, initiatives, customers, finances, value streams, supply chains, products and services to inform decisions on acquiring and delivering mission outcomes. Business Architecture activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Provide expertise and support for Business Architecture, design, implementation approaches and recommendations for the NGA, NSG, and ASG ensuring the alignment of Sensor Programs with GEOINT Doctrine, policy, regulations, organizations, capabilities, initiatives, customers, finances, value streams, supply chains, products and services for informed Government decisions.
2. Promote shared infrastructure and applications to reduce costs and improve information flow.
3. Report on the optimization and usage of shared infrastructures and applications to reduce costs and improve information flow imported into and exported out of the NGA, NSG and ASG enterprise.
4. In collaboration with Enterprise Risk Management, performed on the NGA Foundational Engineering Contract, identify Sensor Program level risks, opportunities and issues associated with the collective enterprise architecture (As-Is, To-Be and Technical Roadmap’s) and assist in risk mitigation.
5. Assist the Government in developing business architecture to transition the Acquisition processes from paper to digital models/representations integrating architectures, requirements, integration, scheduling, budgeting and other data needed to augment, automate and accelerate the Acquisition Process.

### Data Architecture/Data Services Architecture Support

The commonly used data and metadata formats used by NGA, NSG, ASG, USG, commercial, and foreign partners; the business rules for data access, releasability, conflation, validation, quality, retention, storage management, and refresh; and the technical services architecture to support the NGA’s data strategy of making data accessible to all users via common services. The Data Services Architecture for GEOINT (DSA-G) includes services for data ingest, conditioning, access, dissemination, security, management and storage.

Data Architecture/Data Services Architecture activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Collaborate with the NSG Data Engineering (NDE) contractor and Government to provide inputs to the DSA-G as sensor and data formats are modified or introduced into the Enterprise and Solution Architectures, Enterprise Requirements, Enterprise Technical Roadmaps, Business Architecture and Enterprise Integration engineering.
2. Provide support for Data and Data Services Architecture, design, implementation approaches and recommendations for NGA, NSG, and ASG operations.

### Network Architecture and Engineering Support

Network Architecture and Engineering activities the contractor shall support in the performance of this Task Order include: Providing expertise and support for Sensor Program Network Architecture, design, and implementation approaches and recommendations for NGA, NSG, and ASG operations.

### Security Architecture and Engineering Support

Support the government with securing the enterprise infrastructure through the security architecture for the NGA, NSG, ASG, USG, commercial, and foreign partner networks with direction from the Chief of Security Engineering and in collaboration/coordination with the Cyber Security Operations, Cyber Security Program Office, Security and Installations (SI), and the Chief Information Security Officer (CISO). The NEE Security Architecture and Engineering activities for TAS will be executed in collaboration with the NEE Security Architecture and Engineering team for TAEC to ensure consistency across tools, data, methods, outcomes, etc.

Security Architecture and Engineering activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Engineer and implement Sensor Program Security Services to ensure secure operation and defense of the NGA, NSG, and ASG operations.
2. Providing technical expertise to support program development of secure applications and systems by providing technical guidance for implementation of ICD-503 required controls, speeding the delivery of capabilities to our customers and subsequent future cyber security policies and directives.
3. Collaborate with cyber security contractor, operations and accreditation teams on execution of design, engineering, upgrade and integration activities.

## Requirements Engineering

TAS requires SE&I 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 (i.e., GEOINT Enterprise Capabilities Documents (ECDs), Statements of Capabilities (SOCs) Intelligence Capability Baseline Description (ICBD), and Capabilities Description Documents (CDDs), Capability-Oriented Requirement (COR) sets, Service-Oriented Requirement (SOR) sets,) through solution (i.e., System and Software Requirements Documents (SysRDs and SRDs) level requirements to establish and enable GEOINT mission solutions for all customers of the NGA, NSG, ASG, USG, commercial and foreign partners . The collective requirements engineering activity is inclusive of agile techniques to define requirements using capabilities, epics, features and user stories. 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.

### Requirements Engineering Support

The contractor shall support the Government in developing, documenting, decomposing and allocating mission needs from strategic to Enterprise to Solutions level requirements to establish and enable Sensor Programs mission solutions for all customers of the NGA, NSG, ASG, USG, commercial and foreign partners.

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

1. Support the GEOINT Futures (NGA/GF) and Enterprise Requirements Engineering Office with continued development, maintenance, and documentation of all Sensor Program requirements, documents to include the GEOINT ECD, all relevant SOCs, all relevant ICBDs, Enterprise repository (NRAI), CDDs, NGA GEOINT CONOPS 2022 and future CONOPS.
2. Support the decomposition and allocation of all NGA strategic requirements/needs from the GEOINT ECD, all relevant SOCs, all relevant ICBDs, CDDs and the NGA GEOINT CONOPS 2022 (and future versions) to lower strategic, integration and Enterprise level requirement repositories, digital representations, and documents. This shall include the decomposition of high-level needs, epics, and requirements into Enterprise 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.
3. Interact with the Enterprise Requirements Database, a centralized location for all requirements and requirements documentation. Collaborate with Foundational Systems Engineering for execution and management.
4. Establish and maintain a Sensor Program Requirements Management Process for managing requirements, which provides multi-directional traceability and allows for managing changes to the established requirements baseline maintained by the enterprise.
5. Interact with the Enterprise Requirements Baseline to enable Sensor Program stakeholders to develop acquisition strategies, identify areas for investing and divesting, and provide traceability of requirements from the GEOINT ECDs, SOCs, ICBDs, CDDs, and NGA GEOINT CONOPS 2022 (and future versions) through solutions engineering.
6. Manage Sensor Program requirements artifacts in collaboration with the Configuration Management function within NFE.
7. Validate decomposed, allocated Sensor Program requirements from the strategic documents to solution programs, segments and projects and coordinate with the user to demonstrate perceived intent and further develop requirements.
8. Coordinate with users and stakeholders to develop Sensor Program requirements for new, and changing, mission needs and to determine viable solutions for each request.
9. Capture new strategic Sensor Program requirements/needs and the associated Roadmaps from any NGA, NSG, or ASG Concept of Operations (CONOPS) development effort. The Sensor Program Roadmaps include the capture of groupings of time-phased capabilities and success criteria with associated dependencies to support the development of Solution Epics.
10. In collaboration with Enterprise Risk Management, performed on the NGA Foundational Engineering Contract, identify Sensor Program level risks, opportunities and issues associated with requirements and the requirements management lifecycle and assist in risk mitigation.
11. Support and represent the Sensor Programs Requirements Team at governance boards for approval of new user needs and requirements.
12. Use the enterprise MBSE model to document, update, and trace Sensor Program requirements, design, analysis, and verification and validation activities from strategic through solution levels beginning in the conceptual design phase and continuing throughout the systems engineering life cycle.
13. The contractor shall collaborate with the NSE contractor in the allocation/traceability of Enterprise requirements to Sensor programs requirements.
14. The contractor shall collaborate with the NFE contractor in the configuration control, configuration management of Sensor Program requirements.

### Capabilities Requirement Analysis (Legacy Requirement) Support

The NEE contractor shall provideservices 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:

1. Ensure technical roadmap timelines 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.
2. Conduct capabilities retirement analysis engineering activity in collaboration with Enterprise and Capabilities-level Requirements Engineering.
3. Perform divestment analyses to identify overlapping capabilities or existing functions that can be absorbed into enduring/new systems to minimize duplication.
4. Conduct requirements trace using JARM Technical Service Types (TSTs)) for duplication analysis and provide reports to the Government describing the findings.
5. Automate the analysis and reporting needed to detail the gaps and duplication in the enterprise capabilities provided by external partners and IC ITE.
6. Assess the NGA, NSG, ASG, USG, commercial and foreign partner software/service repositories (e.g. the GEOINT Solutions Marketplace (GSM)) for reuse opportunities).

### Interface/Service Definition Support

The NEE contractor shall provideservices supporting the Government in transitioning the enterprise interfaces with Mission Partners for Sensor Acquisition programs.

Interface / Service Definition activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Define and mature system and service interfaces and the interactions across the NGA, NSG ASG, USG, commercial and foreign partner baselines.
2. Update the detailed interface definition documents affected by Sensor Programs to ensure they are reflected in the enterprise architecture.

### External Site Integration Activities

The NEE contractor shall provideservices supporting Government’s External Architecture activities to include identification of systems for deactivation and disposal readiness (DDR) of retired legacy capabilities at applicable external customer sites and the deployment of new capabilities/services to the same.

The contractor shall support external architecture activities in the performance of this Task Order to include, but are not limited to:

1. Develop and maintain the overall Sensor Program project schedule in Microsoft Project to identify impacts to external sites, and communicate to the Government and the sites.
2. Coordinate Sensor Programs with the External Site Architecture (ESAT) team so they can develop and maintain site-specific project plans and product/service deployment schedules.
3. Support systems engineering and integration transition activities at external sites and provide systems integration guidance.
4. Conduct technology analyses and understand technological details of the products/services to include interfaces with and dependencies on other products/services both internal and external customers.
5. Provide baseline architecture decision aids for interfaces with external sites that enable the government to assess, manage, plan and execute architectural decisions (strategic or program).
6. Assist the ESAT team to create and maintain overall communications plans and related products for Sensor Programs to include extensive user out-reach to advise on optimization efforts between NGA, NSG and ASG programs, segments and projects.
7. Create various communications artifacts to support weekly status briefings.
8. Support interfaces with external customer systems. Address integration directly with necessary NGA Programs of Record and segments.
9. Provide engineering support for the review, preparation, development, and technical exchange for network and infrastructure related RFC’s, Interconnection Security Agreements (ISAs), Firewall Change Requests (FCRs), Peering Agreements (PAs), Memorandum of Agreements (MOAs), and Memorandum of Understanding (MOUs) and other agreements and change documents as needed to support Sensor Programs.
10. Coordinate with Infrastructure Service Provider (ISP), network access, security, and contractual requirements across NGA, NSG and other required DoD/Government entities.
11. Coordinate and execute transition and deployment plans transitioning required mission capabilities into operations with minimum disruption to ongoing mission operations.
12. Work with the ESAT team to conduct site specific network/system/application testing and provide coordinating support to test events, including both formal and informal testing at external sites in relation with Sensor Programs.
13. Develop performance requirements, to include generation of ISP requirements, to support products and services.
14. Coordinate with project teams on integration impacts and guide solutions/resolution of technical issues. Record lessons learned.

## Sensor Program Integration Engineering (Cross Organization and Program Offices)

The Contractor shall provide support under the Sensor Program Integration Engineering (Cross Organization and Program Office) requirement to assist the Government with the integration of Sensor program 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). Sensor Program Integration Engineers also work with NGA and Mission Partner Program Offices Engineers to integrate and synchronize individual program, segment, and project solutions across the enterprise and ensure enterprise epic completion.

Sensor Program Integration Engineering includes working with the TAE level integration offices to ensure Sensor Acquisition Programs are integrated into the NSG, ASG, and International partners, as appropriate and support for, but is not limited to, the Sensor Program integration engineering activities that follow.

### Sensor Program Coordination of Integration Support

The NEE contractor shall provideIntegration services aligning the planned, in-work and delivered capabilities, programs, projects, systems, segments and services ensuring that all the parts successfully connect and operate together. Sensor Program Coordination of integration shall support the NGA Government POCs with program integration activities. These programs have integration responsibilities that span the NGA, NSG, ASG, USG, Mission Partner, commercial, and foreign partner enterprise. For example, Sensor Programs where NGA works with numerous NGA and IC partner programs, segments, and projects to plan for the receipt and use of various sensor phenomenology data across the tasking, collection, processing, exploitation and dissemination (TCPED) paradigm and IC ITE services. Sensor Program coordination will collaborate with the NGA, NSG, ASG, USG, Mission Partner, commercial and foreign entities as appropriate.

Sensor Program Coordination of Integration activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Support the government with integration across the NGA, NSG, ASG, USG, commercial and foreign partner enterprise ensuring alignment of architecture, requirements and as-built capabilities, services and features are in compliance with all license and sharing agreements.
2. Ensure integration across program, segment and project plans, technical roadmaps, and schedules to achieve the delivery of capabilities and effectivities.
3. Maintain technical roadmaps for Sensor Programs to include scope and completion dates. Re-baseline roadmaps in response to changing agency guidance and strategies.
4. Ensure integration of solution engineering across time horizons from year of budget execution through the Future Year Defense Program (FYDP and beyond).
5. Support government oversight of program development and coordination of CONOPS, technology roadmap planning, architecture development, cross segment / cross Agency interface definitions, requirements definition, decomposition, allocation to and development by programs, segments, and projects, and enterprise-level verification and validation, transition to operations and retirement activities.
6. Support integration across the planned, in-work, and delivered services related to sensor integration programs, ensuring that all the “parts” connect, operate together successfully, and are consistent with enterprise plans and strategies.
7. Support integration activities and interactions with the IC, external agencies and the DoD to include sensor and platform acquisition, related ground architecture development efforts, and sensor acquired ground components necessary for consumers of the resultant data and information, and military organizations.
8. Support end to end system integration and acceptance necessary for Major System Acquisitions (MSAs).
9. Support program, segment, and project level technical reviews, preform technology readiness assessments, and attend Technical Exchange Meetings (TEMs) to assess enterprise integration challenges.
10. Review system integration documentation for accuracy, completeness, and harmony with enterprise integration efforts. Coordinate needed changes with appropriate program, segment, and project offices.
11. Support the transition of new services and capabilities to operations and identify gaps in toolsets and automation used to test and deliver those services and capabilities. Identify gaps or new needs for automated test capabilities to address incoming capabilities.
12. Provide developers guidance and recommendation on service virtualization, and service APIs for enterprise systems.
13. In collaboration with Enterprise Risk Management, performed on the NGA Foundational Engineering Contract, identify enterprise-level, and Joint Mission Partner, risks, opportunities and issues associated with enterprise integration and assist in risk mitigation.

### NGA Sensor Program Test Support

The NEE contractor shall provide coordination of Sensor Program integration testing services to include planning and coordinating enterprise test events in support of Sensor Programs with the NGA Test Organization (NTO) and Mission Partners and coordinating integration, interoperability, operational and functionality testing for a multitude of Sensor Programs. NGA Sensor Program Test Support activities the contractor shall support in the performance of this Task Order include, but are not limited to:

1. Support agile, end-to-end system, operational, integration, and regression testing and analysis on NGA, NSG, and ASG mission production systems, GEOINT services in support of Sensor Programs.
2. Support early integration testing of multiple interactive systems to demonstrate stability and readiness for operational exposure in support of Sensor Programs.
3. Perform requirements decomposition to identify and develop test cases and objectives.
4. Conduct system workflow and interoperability analysis to identify test case insertion points.
5. Conduct assessment of risk to the enterprise, architecture, legacy capabilities, and end user to determine the risk priority and scope of planned testing.
6. Coordinate Sensor Program test participation with all NGA stakeholders, mission partners, other NSG/ASG programs, segments, and projects, de-conflicting schedule and resource conflicts.
7. Track Discrepancy Reports (DRs) and developer and program office Technical Investigation (TI) updates to determine need for re-test.
8. Perform analysis of Sensor Program test case results and analyze output from artifacts against risk to the NSG/ASG to develop a recommendation for operational readiness. Coordinate recommendation with Sensor program, Mission Partner, segment, and project office to determine the appropriateness of deployment with liens, delayed deployment, or partial operationalization of capabilities.
9. Support readiness of programs, segments, and projects at various milestones through participation in required readiness reviews and assist government POCs with recommendations to ensure success.
10. Support the NTO to develop Operational Test and Evaluation (OT&E) criteria and system acceptance tests for Sensor Programs.
11. Coordinate with NGA Foundational Engineering (NFE) contractor to ensure the Sensor program test campaigns are in accordance with the NSG/ASG Test & Evaluation Master Plan (TEMP).
12. Facilitate and oversee self-service and collaborative end-to-end system testing and analysis inclusive of DevOps and cloud hosted developed applications, tools, and services.

## Enterprise Analysis and Assessment

The NEE contractor shall provide support to Capabilities-based Analysis, Business Engineering (Pre-Acquisition Engineering), Analysis of Alternatives (AoAs), Trade Studies, and Engineering Assessments. Resources applied against this effort shall assist the Government in establishing structured processes and methodologies facilitating Capabilities-based Analysis, Business/Pre-Acquisition Engineering, and AoA’s, Trade Studies and Engineering Assessments.

### Capabilities-based Analysis

The NEE contractor shall provideservices to analyze NGA’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:

1. Perform analysis on requirements for retiring systems to ensure enduring requirements are identified and allocated to to-be architecture service groups and Program Offices.
2. 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. Use Model-Based Systems Engineering (MBSE) methods and tools to model transition capabilities and services to new systems.

### Business Engineering (Pre-Acquisition Engineering)

The NEE contractor shall provide services for the decomposition of enterprise business architecture into defined business processes and solutions architectures for the planning of IT program acquisitions for new GEOINT systems and services delivering operational capabilities.

Support the upfront engineering and transformation of the enterprise architecture to ensure acquisitions meet NGA’s mission requirements and required capabilities to include, but not limited to:

1. Develop and present decision quality analysis in detailed report and/or summary briefing format that presents decision makers with salient facts about performance, requirements satisfaction, risks, cost/benefit analysis, security and schedule/timeline implications (among other relevant factors) to allow for effective, informed decision making.
2. Provide input to developers of User Concept of Operations (CONOPS) on Sensor Program initiatives by engaging with the NGA, NSG, ASG, USG, commercial and foreign partner user communities to describe the vision as to how the members will operate in future timeframes. These documents will be published to provide an operational framework to define new capabilities, manage operations, modify business practices, and support planning and programming activities in the near and mid-term.

### AoAs, Trade Studies and Engineering Assessments

The NEE contractor shall provide services to perform AoAs, trade studies comparison and engineering assessments of the operational effectiveness, suitability, risk, lifecycle costs, technology maturity, satellite and sensor integration, security and other critical factors of system, software, service, methodology choices impacting the GEOINT mission. These analyses, studies and assessment activities are closely linked to and are an integral part of determining sound courses of action/acquisition strategies for Capabilities-based Analysis and Pre-Acquisition Engineering. The contractor shall work with the Modeling, Simulation and Analysis Team to identify, request and evaluate data used for AoAs, trade studies and engineering studies.

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

1. Plan and conduct in-depth AoA, trade study comparison, and engineering 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 NGA mission.
2. Conduct in-depth verification and validations, and adjudication of recommendations in previously completed AoAs, trade studies, and engineering studies.
3. Establish standards across NGA Enterprise for performing AoAs, trade studies, and engineering assessments by creating templates, scripts and process flows to simplify the execution of some of the common repeatable tasks.
4. Recommend tools and techniques to easily compare, overlay, ingest and merge AoA, trade study, and engineering study data across the Sensor Program and the enterprise.
5. Use Model-Based Systems Engineering (MBSE) methods and tools to model alternatives used in engineering assessments, AoAs and trade studies.

### Photogrammetry Analysis and Assessments

The NEE contractor shall provide services to perform photogrammetry evaluations, analysis and assessments as required by the Government. The contractor shall evaluate passive and active sensor performance and provide recommendations to the Government for photogrammetry requirements for new and current sensors.

1. Be familiar with photogrammetric functions including but not limited to Triangulation, Single Image Resection, Image Registration, Photogrammetric Registration, Space Intersection and Relative Triangulation.
2. Be able to evaluate a sensor system’s precision geopositioning from single images and multiple images.
3. Participate in NGA/NSG validation programs for Photogrammetry to represent the sensor under development.

## Modeling, Simulation & Analysis (MS&A)

The NEE Contractor shall provide support under Modeling, Simulation & Analysis (MS&A) using Model-Based Systems Engineering (MBSE) methods and industry best practices. MS&A captures the knowledge, hypotheses, assumptions and conclusions of an intelligence problem in a format useful to both humans and machines. MS&A activities shall include interfacing with the models maintained by the Enterprise MS&A activities. These interactions with the Enterprise level models are used in AoAs, Trade Studies, and Engineering Assessments to provide recommendations to the Sensor Programs on future acquisition options, impact of Sensor Programs on the current architecture, and investment needs to support architecture upgrades necessary to accommodate Sensor Programs and their interaction with systems architectures, subsystems, services, and components across the NGA, SAGE (CAP/SAP), NSG, ASG, USG, Mission Partner, commercial and foreign partners’ architectures. MS&A support shall also be utilized to depict/simulate enterprise and sub-level architectures to model/test performance and new concepts for future Sensor Program architectures (i.e., ground, airborne, overhead). The MS&A activity shall conduct performance analysis, determine mission testing requirements, and provide/recommend measures of effectiveness (MOE) for new and existing capabilities to meet GEOINT and intelligence analysts’ needs. The Contractor shall initiate communications to ensure Modeling, Simulation & Analysis (MS&A) activities and results are collaborated/coordinated with engineering activities conducted in NEE, NGA Segment Engineering (NSE), NGA Foundational Engineering (NFE), and NGA Digital Engineering (NDE) contracts. The NEE MS&A activities for TAS will be executed in collaboration with and integrated with the NEE MS&A activities for TAEF to ensure consistency across tools, data, methods, outcomes, etc.

MS&A shall support, but is not limited to, the following MS&A activities:

1. Conduct and deliver assessments and recommendations on performance engineering and analysis throughout phases of the Systems Engineering Lifecycle.  Recommendations shall inform decisions related to current and future enterprise architectures (As-Is and To-Be), current and future capabilities, budgeting, proposed CONOPS and technical roadmaps.
2. Conduct Modeling, Simulation and Analysis to simulate, forecast and assess proposed activities/initiatives on emerging trends and disruptive forces that will impact and set the direction for the GEOINT To-Be Architecture.
3. Shall identify where changes may be beneficial and/or efficiencies gained.  As information technology environments and capabilities evolve, outcomes of MS&A will need to consider and assess the impacts of such changes.  Assessments shall include, but are not limited to:
4. Technology advancements and performance improvements in collection systems (Impact on collection capabilities and ground architecture)
5. Impacts of machine learning and performance issues caused by big data, such as ever increasing sources of GEOINT content from multiple providers.
6. Impacts on communications and data transport systems within architectures and overall architectural timeliness and responsiveness.
7. Shall interact with the developed MS&A performance and mission effectiveness algorithms, methodologies, and programs needed to support NGA, NSG, ASG, USG, Commercial and Foreign Partner studies when needed as applicable to Sensor Programs.
8. As directed by the government, shall work with the Enterprise MS&A team to perform Enterprise-level (“big picture”) performance and mission effectiveness analysis as they pertain to Sensor Programs and deliver assessments and recommendations which inform/influence future enterprise architecture designs, capabilities, and roadmaps.
9. Shall work with the Enterprise MS&A team to perform MS&A performance and mission effectiveness analysis activities, assessments, and prediction of IT services and performance to meet mission requirements with consideration for data characteristics (format, utilization, integrity, persistence), current/projected IT environment (services, protocols, bandwidth, speed, reliability, architecture), and applicable laws/policies/standards (security, interoperability) as they apply to Sensor Programs.
10. Shall perform MS&A performance and mission effectiveness analysis on commercially available services and products and recommend which ones should be included into enterprise baselines.  MS&A shall include the evaluation of proposed solution strategies; identify project performance requirements and provide recommendations to divestment/acceleration decisions and cost estimation/evaluation.
11. Shall develop capacity impacts to include modeling of predictive impacts as they apply to Sensor Programs.
12. Shall develop algorithms, codes and databases needed for studies using, but not limited to Microsoft Office Excel, Microsoft Office Access, Oracle, SQL using Visual Basic, R, Python, C++, C##, and JAVA for MS&A focus areas.
13. Shall utilize MS&A system(s) that share a commons data schema where work can be shared across all NGA supported mission areas such as overhead, Tactical, and ground.

## Transition

### 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. |
| 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. |

3.6.1.1 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.

3.6.1.2 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.

### 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.

## 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.

### Kick-Off Meeting

The contractor shall schedule a kick-off meeting with the CO, PM, COR/Alternate COR (ACOR), and Technical Monitor(s) (TM) within 10 calendar days of task order award.

### Weekly Meetings

A weekly telecom will be held with the CO, PM, and COR/ACOR, to discuss status. The weekly telecoms will be held throughout the entire performance. The Contractor shall provide an agenda, identify any issues and document action items.

### 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:

1. Contract management reporting
2. Task progress and Funding Status Report
3. Control of the contractual task order (dollars and labor hours) and distribution
4. Projected changes in manpower and redistribution based on customer organization needs, manpower and recruiting summary
5. Security issues
6. Contractual action items
7. Task order accounting data documentation
8. Report by task order element of hours/rates by discipline and skill level and by labor category
9. Comparison of proposed travel costs to actual travel costs for each task order element
10. Comparison of total contract funding to invoiced services
11. Any special interest items requested by the Government or provided at the contractor’s initiative
12. 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/ACOR.

### 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).

### 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.

### Monthly Activity Report (MAR)

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

### 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.

### 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, ACOR, and/or TM 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/ACOR | 1 Electronic Copy to PMO Email Address  Contractor Defined, Government Approved |
| Monthly Financial Report | 002 | 3.7.4 | Award +30 Days | Monthly | COR/ACOR, TM | 1 Electronic Copy to PMO Email Address and to appropriate TM Email Address(es)  Contractor Defined, Government Approved |
| Monthly Staffing Report | 003 | 3.7.5 | Award +30 Days | Monthly | COR/ACOR, TM | 1 Electronic Copy to PMO Email Address and to appropriate TM Email Address(es)  Government Defined |
| Monthly Activity Report | 004 | 3.7.7 | Award +30 Days | Monthly | COR/ACOR, TM | 1 Electronic Copy to PMO Email Address and to appropriate TM Email Address(es)  Contractor Defined, Government Approved |
| Transition Plan | 005 | 3.6.1 | Award + 7 days | As Required | PM, CO, COR/ACOR | 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/ACOR, TM | 1 Electronic Copy to PMO Email Address and to appropriate TM Email Address(es)Contractor Defined, Government Approved |
| Requirement Trace Reports | 007 | 3.2 | As Required | As Required | COR/ACOPR, TM & GPOC | 1 Electronic Copy to PMO Email Address and to appropriate TM Email Address(es)  Contractor Defined, Government Approved |
| Digital Models, Digital representations | 008 | 3.0 | As Required | As Required | COR, TM, GPOC | Electronic delivery as defined by Government  Contractor Defined, Government Approved |

## Labor

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

# General Provisions

## Primary Place of Performance

The primary place(s) of performance for this Task Order are NCE, NCW, King of Prussia, PA (KOP) (Contractor facility), Huntsville, AL (government facility), and Washington Metropolitan Area (WMA) (Contractor facility). 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

## Government-Furnished Property (GFP)

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

**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, printers, plotters and VTCs.  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 on the TA Tools/Software List, 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 0011 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 the Contractor with a standard profile of Office productivity tools that includes Microsoft Office, Adobe Reader and 7-Zip file manager.

**Connectivity/Transport:** The Government will be responsible for installing and maintaining Encryption equipment, switches, and routers for vendor locations who have no current connectivity. Per above, this will be GFP to the winning NEE contractor if needed. Additionally, it does not include the cabling, network equipment, etc. associated with outfitting the vendor’s site.

The Contractor is responsible for all facilities power space and cooling to include battery backups for all of the IT in the closets; Contractor Internet Connection (CIC) to include the connectivity of the CIC to the room where the transport encryption, switches, routers will be located; all cable runs (to user areas, desks, conference rooms, IT closets, etc.) to include the WAO (work area outlets) per their security/SCIF accreditation; and all unclassified phone lines, internet, workstations, printers, faxes, phones, etc.

**Data:** The Government will provide access to all available NGA data to support the requirements of the Task Order 0011 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.

## Foreign Contacts

Refer to the Base SOW.

# Security

Refer to the Base SOW.

# Key Personnel

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

# 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 $550,000 per year.

# 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**

| **Position ID\*** | **Location** | **Position Description  #** | **TO Section** | **FTE** | **Skill Level** | **Service Category** | **Job Title** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 01-11-TAS-01-0001 | WMA | 1 | All | 1 | 4 – Expert | Senior Management | Task Order Program Manager |
| 01-11-NTME-01-0002 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-02-0003 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-03-0004 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-04-0005 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-05-0006 | WMA | 10a | 3.2-3.4 | 1 | 4 - Expert | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTME-06-0007 | WMA or KOP | 10a | 3.2-3.4 | 1 | 4 - Expert | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTME-07-0008 | WMA | 10b | 3.2-3.4 | 1 | 3 – Senior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTME-08-0009 | WMA | 10c | 3.2-3.4 | 1 | 2 - Mid | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTME-09-0010 | NCE | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-10-0011 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-11-0012 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-12-0013 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTME-13-0014 | NCE | 14a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Lead Integrator |
| 01-11-NTML-01-0015 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-02-0016 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-03-0017 | NCE | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-04-0018 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-05-0019 | NCE | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-06-0020 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-07-0021 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-08-0022 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-09-0023 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-10-0024 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-11-0025 | WMA | 9a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-12-0026 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-13-0027 | WMA or KOP | 5a | 3.5 | 1 | 4 - Expert | Engineering and Architecture | Modeling, Simulation and Analysis |
| 01-11-NTML-14-0028 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-15-0029 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-16-0030 | NCE | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-17-0031 | AL | 9a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-18-0032 | WMA or KOP | 5b | 3.5 | 1 | 3 – Senior | Engineering and Architecture | Modeling, Simulation and Analysis |
| 01-11-NTML-19-0033 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-20-0034 | WMA | 2b | 3.1 – 3.5 | .5 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-21-0035 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-22-0036 | WMA | 6b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Architect |
| 01-11-NTML-23-0037 | NCW | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-24-0038 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-25-0039 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-26-0040 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-27-0041 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-28-0042 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-29-0043 | WMA | 9a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-30-0044 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NTML-31-0045 | NCE | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-32-0046 | WMA | 2d | 3.1 – 3.5 | 1 | 1 - Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-33-0047 | WMA | 2d | 3.1 – 3.5 | 1 | 1 - Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-34-0048 | WMA | 2d | 3.1 – 3.5 | 1 | 1 – Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-35-0049 | NCE | 2b | 3.1 – 3.5 | 1 | 3 - Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-36-0050 | WMA | 2a | 3.1 – 3.5 | .25 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-37-0051 | WMA | 2b | 3.1 – 3.5 | .25 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-38-0052 | WMA | 2a | 3.1 – 3.5 | .25 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-39-0053 | WMA | 2b | 3.1 – 3.5 | .25 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-40-0054 | WMA | 2d | 3.1 – 3.5 | 1 | 1 - Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NTML-41-0055 | WMA | 5a | 3.5 | 1 | 4 – Expert | Engineering and Architecture | Modeling, Simulation and Analysis |
| 01-11-NTML-42-0056 | WMA | 5d | 3.5 | 1 | 1 - Junior | Engineering and Architecture | Modeling, Simulation and Analysis |
| 01-11-NTMP-01-0057 | NCE | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTMP-02-0058 | WMA | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTMP-03-0059 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTMP-04-0060 | NCE | 10b | 3.2-3.4 | 1 | 3 – Senior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTMP-05-0061 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTMP-06-0062 | WMA | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NTMP-07-0063 | NCE | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NTMP-08-0064 | WMA | 10d | 3.2-3.4 | 1 | 1 - Junior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NTMP-09-0065 | WMA | 6a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Architect |
| 01-11-NTMP-10-0066 | WMA | 6b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Architect |
| 01-11-NTMP-11-0067 | WMA | 21b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cyber Security Engineer |
| 01-11-NTMEO-01-0068 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-02-0069 | NCE | 2a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-03-0070 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-04-0071 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-05-0072 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-06-0073 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-07-0074 | WMA | 2c | 3.1 – 3.5 | 1 | 2 - Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-08-0075 | WMA | 2d | 3.1 – 3.5 | 1 | 1 - Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NTMEO-09-0076 | WMA | 5b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Modeling, Simulation and Analysis |
| 01-11-NTMEO-10-0077 | WMA | 6a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Architect |
| 01-11-NRG-01-0078 | NCE | 7b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | SAR Imagery Scientist |
| 01-11-NRG-02-0079 | NCE | 7a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | SAR Imagery Scientist |
| 01-11-NRG-03-0080 | WMA | 15b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | SAR Integration Engineer |
| 01-11-NRG-04-0081 | WMA | 15a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | SAR Integration Engineer |
| 01-11-NRG-05-0082 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-06-0083 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-07-0084 | WMA | 8c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-08-0085 | WMA | 8b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-09-0086 | WMA or KOP | 5a | 3.5 | 1 | 4 - Expert | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-10-0087 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-11-0088 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-12-0089 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-13-0090 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-14-0091 | WMA or KOP | 5a | 3.5 | 1 | 4 - Expert | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-15-0092 | WMA | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-16-0093 | WMA or KOP | 5b | 3.5 | 1 | 3 – Senior | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-17-0094 | WMA | 8b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-18-0095 | WMA | 6b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Architect |
| 01-11-NRG-19-0096 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-20-0097 | WMA | 9d | 3.1 – 3.5 | 1 | 1 - Junior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-21-0098 | WMA | 8b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-22-0099 | WMA | 6b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Architect |
| 01-11-NRG-23-0100 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-24-0101 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-25-0102 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-26-0103 | WMA | 10b | 3.2-3.4 | 1 | 3 – Senior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-27-0104 | WMA | 10a | 3.2-3.4 | 1 | 4 – Expert | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-28-0105 | WMA | 10c | 3.2-3.4 | 1 | 2 – Mid | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-29-0106 | WMA | 10c | 3.2-3.4 | 1 | 2 – Mid | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-30-0107 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-31-0108 | NCW | 20a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Cloud Solutions Architect/Engineer |
| 01-11-NRG-32-0109 | WMA | 20b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cloud Solutions Architect/Engineer |
| 01-11-NRG-33-0110 | WMA | 20b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cloud Solutions Architect/Engineer |
| 01-11-NRG-34-0111 | STL | 20c | 3.1 – 3.5 | 1 | 2 - Mid | Engineering and Architecture | Cloud Solutions Architect/Engineer |
| 01-11-NRG-35-0112 | NCE | 21b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cyber Security Engineer |
| 01-11-NRG-36-0113 | WMA | 12a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Data Architect |
| 01-11-NRG-37-0114 | WMA | 13b | 3.1 – 3.5 | 1 | 3 – Senior | Senior Management | Functional Specialist/Advisor |
| 01-11-NRG-38-0115 | WMA | 12a | 3.1 – 3.5 | 1 | 4 - Expert | Engineering and Architecture | Data Architect |
| 01-11-NRG-39-0116 | WMA | 13a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Functional Specialist/Advisor |
| 01-11-NRG-40-0117 | WMA | 13a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Functional Specialist/Advisor |
| 01-11-NRG-41-0118 | WMA | 13a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Functional Specialist/Advisor |
| 01-11-NRG-42-0119 | WMA | 13a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Functional Specialist/Advisor |
| 01-11-NRG-43-0120 | WMA | 14a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | Lead Integrator |
| 01-11-NRG-44-0121 | WMA | 5a | 3.5 | 1 | 4 – Expert | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-45-0122 | WMA or KOP | 5b | 3.5 | 1 | 3 – Senior | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-46-0123 | WMA | 5d | 3.5 | 1 | 1 - Junior | Engineering and Architecture | Modeling, Simulation and Analysis Engineer |
| 01-11-NRG-47-0124 | WMA | 22a | 3.1 – 3.5 | 1 | 4 – Expert | Senior Management | NRG Lead |
| 01-11-NRG-48-0125 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-49-0126 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-50-0127 | WMA | 8b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-51-0128 | WMA | 8a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-52-0129 | WMA | 8a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Requirements Engineer |
| 01-11-NRG-53-0130 | WMA | 15b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | SAR Integration Engineer |
| 01-11-NRG-54-0131 | WMA | 15a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | SAR Integration Engineer |
| 01-11-NRG-55-0132 | WMA | 16a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Analyst |
| 01-11-NRG-56-0133 | WMA | 16b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Analyst |
| 01-11-NRG-57-0134 | WMA | 6b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Architect |
| 01-11-NRG-58-0135 | WMA | 6a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Architect |
| 01-11-NRG-59-0136 | WMA | 2d | 3.1 – 3.5 | 1 | 1 – Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-60-0137 | WMA | 2d | 3.1 – 3.5 | 1 | 1 – Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-61-0138 | WMA | 2d | 3.1 – 3.5 | 1 | 1 – Junior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-62-0139 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-63-0140 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-64-0141 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-65-0142 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-66-0143 | NCE | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-67-0144 | NCE | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-68-0145 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-69-0146 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-70-0147 | NCW | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-71-0148 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-72-0149 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-73-0150 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-74-0151 | WMA | 2a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-75-0152 | WMA | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-76-0153 | WMA | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-77-0154 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-78-0155 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-79-0156 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-80-0157 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-81-0158 | NCE | 9a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-82-0159 | WMA | 9a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-83-0160 | WMA | 17b | 3.1 – 3.5 | 1 | 3 - Senior | IT Engineering | Technical Writer |
| 01-11-NRG-84-0161 | NCE | 10a | 3.2 – 3.4 | 1 | 4 – Expert | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-85-0162 | NCE | 10a | 3.2 – 3.4 | 1 | 4 – Expert | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-86-0163 | WMA | 10b | 3.2 – 3.4 | 1 | 3 – Senior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-87-0164 | WMA | 10d | 3.2 – 3.4 | 1 | 1 - Junior | Engineering and Architecture | Test Systems Engineer |
| 01-11-NRG-88-0165 | WMA | 9c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-89-0166 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-90-0167 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-91-0168 | WMA | 2c | 3.1 – 3.5 | 1 | 2 – Mid | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-92-0169 | WMA | 2b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Engineer |
| 01-11-NRG-93-0170 | WMA | 18b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cloud Architect |
| 01-11-NRG-94-0171 | WMA | 19b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Cloud Engineer |
| 01-11-NRG-95-0172 | WMA | 9b | 3.1 – 3.5 | 1 | 3 – Senior | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-96-0173 | WMA | 9c | 3.1 – 3.5 | 1 | 2 - Mid | Engineering and Architecture | Systems Integrator |
| 01-11-NRG-97-0174 | STL | 21a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Cyber Security Engineer |
| 01-11-NRG-98-0175 | STL | 19a | 3.1 – 3.5 | 1 | 4 – Expert | Engineering and Architecture | Cloud Engineer |

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|  |

**Appendix A Key:**

Signifies Critical Staffing Position

AA-BB-CCCC-DD-1234 (First two Columns of Table)

|  |  |
| --- | --- |
| **Characters** | **Description** |
| AA | Statement of Work Number |
| BB | Task Order Number |
| CCCC | Organization Code Position Supports |
| DD | Organization Number |
| 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, 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: Computer Programmer, Tech Writer, Software Quality Assurance Specialist

**Administration**

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

# Appendix B: Position Descriptions

#### Position 1a: Task Order Program Manager (Expert-Level)

**Overall Assignment Description:**

Expert-level Task Order (TO) Program Managers (PM) are responsible for ensuring the successful contractual and programmatic execution of the TO and serves as the authoritative point of contact for the Vendor on all TO performance matters. The TO PM interfaces with the NSES PMO and TO Government Leads to ensure all positions are staffed and/or backfilled quickly with qualified personnel in accordance with the specified TO Position Descriptions. The TO PM is responsible for ensuring work deliverables, resolving performance shortfalls or deficiencies, supervising contractor personnel and communicating overarching Government objectives and goals for the Task Order to the contractor team. The TO PM works with the TO Lead Integrators, Business Process Manager, and all Critical Staff (critical staffing positions) as well as the Government TO Leads to plan and orchestrate work activities for coordinated deliveries and comprehensive solutions. The TO PM provides technical expertise and assistance to the Government on programmatic matters related to lifecycle engineering and industry best program management practices to achieve NGA’s GEOINT mission.

**Duties may include:**

* Provide Contract Management support to the NSES PMO to ensure the timely execution of all financial, staffing and administrative contract actions.
* Provide program management support to Government TO Leads to facilitate the technical execution of the TO. Program Management support includes cost, schedule, risk and performance management of all TO staff and work activities.
* Work with Government TO Leads to ensure contractor personnel are qualified to perform the assigned task, tasks are understood and completed within the specified timelines, and potential personnel problems are pre-empted.
* Consult and coordinate with the NSES PMO and appropriate Government TO Leads for new resource requirements and associated cost estimates resulting from technical work scope adjustments.
* In coordination with the NSES PMO and Government TO Leads, establish and implement streamlined processes and procedures enabling the rapid respond to surge requirements for increased contract personnel.
* Pre-coordinate all travel and training with the NSES PMO and Government TO Leads prior to scheduling.
* Ensure programmatic alignment and adherence to the NGA Vision, Planning and Programs, CIOT Priorities and TA Priorities.
* Ensure the accuracy, quality, configuration management and timely delivery of all required TO deliverables to include the Monthly Financial Report, Monthly Staffing Report, Monthly Activity Report, Quarterly Program Management Review materials, and as required Trip Reports, Briefings, Evaluations, Technical Assignments, White Papers or other Government requested deliverables necessary for the successful execution and/or completion of work activities.
* Plan and execute Quarterly Program Reviews to provide the NSES PMO and Government TO Leads a comprehensive understanding of the health/status of all TO activities.
* Support the coordination of program management activities between the TA Engineering Offices and Divisions, CIOT Groups, and NGA Directorates and Associate Directorates.
* Support NGA and IC Steering Groups, Advisory Groups and Governance Boards as required.
* Provide program management expertise in lean six-sigma strategies and execution and agile methods, practices and execution.
* Perform day-to-day contractual and programmatic management of the TO.

**Skills and Experience:**

**Required:**

* Bachelor’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience as a Program Manager in terms of cost, schedule, performance, and risk management.
* Experience in engineering, design and analysis of IT or related systems experience in all phases of design, development, analysis and documentation, and development of standards and guidelines for tasks being performed.
* Expert-level experience working in government or industry in DoD/IC Acquisition Process or PPBES.
* Project Management Professional (PMP), DAWIA Level III certification in Program Management or equivalent specialized experience with Project Management tools and techniques.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Knowledge of the geospatial intelligence mission and its contributions to the Intelligence Community.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Experience with the development and/or review of cost estimates and the associated technical work scope necessary to achieve stated objectives.
* Experience in lean six-sigma.
* Experience in tailoring and using both Agile and Waterfall development methodologies
* Experience with the identification of technical issues and proactive communication of possible impacts.
* Experience in performing validation and verification of various engineering results and deliverables to ensure the highest quality results against customer requirements.
* Working knowledge of Cloud-based technologies.
* Working knowledge of structured and unstructured Big Data.
* Working knowledge of Automation, Augmentation and Artificial Intelligence technologies.
* Experience with and strong understanding of systems engineering lifecycle.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 2a: Systems Engineer (Expert-Level)

**Overall Assignment Description:**

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

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Systems Engineering or in a 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, or related equivalent additional experience.
* Expert-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with and strong understanding of systems engineering lifecycle.

**Desired:**

* Master’s degree or higher in Systems Engineering or in a 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.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Software Development Framework certification.
* INCOSE Expert Systems engineering Professional (ESEP) certification.
* Licensure as a professional engineer.
* Membership or leadership participation in any of the following professional organizations:
  + ACSM
  + ASCE
  + ASPRS
  + OGC
  + SAREM
  + USGIF
* Extensive work experience in the field of geospatial intelligence.
* Experience engineering solutions using Cloud-based technologies.
* Experience engineering solutions using structured and unstructured Big Data.
* Experience engineering solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Demonstrated expertise in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
* Demonstrated knowledge of the current NSG/ASG and NRO enterprises.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 2b: 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 may 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.
* Performs 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 or higher in Systems Engineering or in a 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, or related equivalent additional experience.
* Senior-level or higher experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with and understanding of systems engineering lifecycle.

**Desired:**

* Master’s degree in Systems Engineering or in a 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.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Software Development Frameworks.
* INCOSE Certified Systems engineering Professional (CSEP) certification.
* Documented work experience in the field of geospatial intelligence.
* Licensure as a professional engineer.
* Membership or leadership participation in any of the following professional organizations:
  + ACSM
  + ASCE
  + ASPRS
  + OGC
  + SAREM
  + USGIF
* Demonstrated expertise in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
* Demonstrated knowledge of the current NSG/ASG and NRO enterprises.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 2c: Systems Engineer (Mid-Level)

**Overall Assignment Description:**

Mid-level Systems Engineers employ 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 may include:**

* Conducts 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.
* Conducts 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.
* Develops 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.
* Performs systems integration activities.
* Assists with 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.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Systems Engineering or in a 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, or related equivalent additional experience.
* Mid-level working experience in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Mid-level or higher experience working systems engineering in government or industry.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Software Development Frameworks.
* INCOSE Associate Systems engineering Professional (ASEP) certification.
* Documented work experience in the field of geospatial intelligence.
* Membership or active participation in any of the following professional organizations:
  + ACSM
  + ASCE
  + ASPRS
  + OGC
  + SAREM
  + USGIF
* Working knowledge of photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
* Demonstrated knowledge of the current NSG/ASG and NRO enterprises.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 2d: Systems Engineer (Junior-Level)

**Overall Assignment Description:**

Junior-level Systems Engineers employ 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 may include:**

* Assists Mid-Level engineers and the Government in 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 in 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.
* Assists in develop 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.
* Assists with Analysis of Alternatives (AoAs), Course of Actions (CoAs), Trade Studies, and Engineering Assessments.
* Assist the Government in strategic technical planning, project management, performance engineering, risk management and interface design.

**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, or related equivalent additional experience.
* Junior-level or higher experience working systems engineering in government or industry.

**Desired:**

* Working knowledge of Model-Based Systems Engineering Experience and languages.
* Working knowledge of Software Development Frameworks.
* Working knowledge in the field of geospatial intelligence.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 3a: Integration Engineer (Expert-Level)

**Overall Assignment Description:**

Expert-level Integration Engineers are responsible for leading the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Provides a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Plans, coordinates, and documents solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Analyses, designs, tests, and evaluates network systems such as Cloud Resident computing capabilities, satellite networks, local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems ranging from a connection between two offices in the same building to a globally distributed network of systems.
* Plans and coordinates data management practices to treat and handle data as a resource.
* Assists Government in managing system development efforts, moves or modernization changes including analysis, telecommunications (LAN, WAN, voice, video), planning, cabling, IT and cloud requirements, network security measures, and other factors.
* Guides the work of Senior-, Mid-, and Junior-level contractor Integration Engineers.
* Refer to Section 3.3: Enterprise Integration Engineering (Cross System and Segment) for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience working in government or industry in data base management or Big Data analysis.
* Experience Integrating solutions using Cloud-based technologies.

**Desired:**

* Master’s degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Experience Integrating solutions using structured and unstructured Big Data.
* Experience Integrating solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 3b: Integration Engineer (Senior-Level)

**Overall Assignment Description:**

Senior-level Integration Engineers are responsible for leading the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Provides a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Plans, coordinates, and documents solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Analyses, designs, tests, and evaluates network systems such as Cloud Resident computing capabilities, satellite networks, local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems ranging from a connection between two offices in the same building to a globally distributed network of systems.
* Plans and coordinates data management practices to treat and handle data as a resource.
* Assists Government in managing system development efforts, moves or modernization changes including analysis, telecommunications (LAN, WAN, voice, video), planning, cabling, IT and cloud requirements, network security measures, and other factors.
* Guides the work of Mid-, and Junior-level contractor Integration Engineers.
* Refer to Section 3.3 for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level experience working in government or industry in data base management or Big Data analysis.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 3c: Integration Engineer (Mid-Level)

**Overall Assignment Description:**

Mid-level Integration Engineers are responsible for developing or assisting with the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Provides a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Supports planning, implementation approaches, and documentation of solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Analyses, designs, tests, and evaluates network systems such as Cloud Resident computing capabilities, satellite networks, local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems ranging from a connection between two offices in the same building to a globally distributed network of systems.
* Supports the planning and implementation approaches of data management practices to treat and handle data as a resource.
* Assists Government in managing system development efforts, moves or modernization changes including analysis, telecommunications (LAN, WAN, voice, video), planning, cabling, IT and cloud requirements, network security measures, and other factors.
* Refer to Section 3.3 for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level or higher experience working in government or industry in data base management or Big Data analysis.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 3d: Integration Engineer (Junior-Level)

**Overall Assignment Description:**

Junior-level Integration Engineers are responsible for developing or assisting with the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Supports a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Supports planning, implementation approaches, and documentation of solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Supports the analysis, design, test, and evaluation network systems such as Cloud Resident computing capabilities, satellite networks, local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems ranging from a connection between two offices in the same building to a globally distributed network of systems.
* Supports the planning and implementation approaches for data management practices to treat and handle data as a resource.
* Assists Government in managing system development efforts, moves or modernization changes including analysis, telecommunications (LAN, WAN, voice, video), planning, cabling, IT and cloud requirements, network security measures, and other factors.
* Refer to Section 3.3 for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Junior-level or higher experience working in government or industry in data base management or Big Data analysis.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 4b: Technical Integrator (Senior-Level)

**Overall Assignment Description:**

Senior-level Technical Integrators support the Government by gathering, analyzing and composing technical information into clear, readable documents to be used by technical and non-technical personnel. The senior-level Technical Integrator coordinates the sequencing and documentation of systems engineering activities throughout the development lifecycle. They ensure engineering efforts keep the program on schedule while constructing and maintaining the technical baseline.

**Duties may include:**

* Assist the Government PMO in assessing, documenting, and tracking new program requirements, and preparing for technical exchange meetings to feed into development efforts.
* Assist the Government PMO in planning and preparing for systems engineering technical reviews by providing engineering inputs.
* Assist in conducting technical assessments to identify risks, gaps and disconnects in technical approaches.
* Evaluate, track and assess engineering milestones and program-level development schedules.
* Coordinate, document, and track engineering changes to the program and IT Enterprise.
* Support tasks requiring collection, evaluation, and/or publication of technical information and statistical data.
* Assist in the preparation of engineering plans and reports.
* Provide engineering input into budgeting, planning and estimating of resources.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level program integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Senior-level working experience in government or industry in DoD/IC Acquisition Process or PPBES.
* Demonstrated experience providing guidance and direction in high technology programs.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Cloud-based technologies.
* Working knowledge of structured and unstructured Big Data.
* Working knowledge of Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 4c: Technical Integrator (Mid-Level)

**Overall Assignment Description:**

Mid-level Technical Integrators supports the Government by gathering, analyzing and composing technical information into clear, readable documents to be used by technical and non-technical personnel. The mid-level Technical Integrator coordinates the sequencing and documentation of systems engineering activities throughout the development lifecycle.

**Duties may include:**

* Support technical assessments to identify risks, gaps and disconnects in technical approaches.
* Support the evaluation, tracking and assessment of engineering milestones and program-level development schedules.
* Support the coordination, documentation, and tracking of engineering changes to the program and IT Enterprise.
* Assisting support tasks requiring collection, evaluation, and/or publication of technical information and statistical data.
* Assist in the preparation of engineering plans and reports.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level program integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Mid-level working experience in government or industry in DoD/IC Acquisition Process or PPBES.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Cloud-based technologies.
* Working knowledge of structured and unstructured Big Data.
* Working knowledge of Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 5a: Modeling, Simulation and Analysis Engineer (Expert-Level)

**Overall Assignment Description:**

Expert-level Modeling, Simulation and Analysis (MS&A) Engineers guide and conduct modeling, simulation and analysis activities in support of business stakeholders, analysts, and warfighters to define and analyze system and data requirements to support NGA business and mission processes to ensure timely and accurate GEOINT.

**Duties may include:**

* Guides the development and use of complex models, tools and algorithms to identify trends and patterns in Big Data.
* Guides modeling NGA’s architectures, requirements, and systems performance and considers NGA and NSG strategies and overall vision for the future of GEOINT.
* Guides the creation of models to support analysis of alternatives, performance trades, design trades and new capabilities and develops alternatives for deployment based on MS&A results in existing NSG architectures and cloud environments.
* Guides the work of Senior-, Mid-, and Junior-level contractor MS&A Engineers.
* Refer to Section 3.5: Modeling, Simulation and Analysis (MS&A) for a listing of expected work activities the MS&A Engineer would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience working in government or industry modeling large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Knowledge of tools development and use in cloud environments.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Machine learning experience.
* Expert-level experience in Operations Research.
* Experience performing MS&A on solutions using Cloud-based technologies.
* Experience performing MS&A on solutions using structured and unstructured Big Data.
* Experience performing MS&A on solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 5b: Modeling, Simulation and Analysis Engineer (Senior-Level)

**Overall Assignment Description:**

Senior-level Modeling, Simulation and Analysis (MS&A) Engineers guide and conduct modeling, simulation and analysis activities in support of business stakeholders, analysts, and warfighters to define and analyze system and data requirements to support NGA business and mission processes to ensure timely and accurate GEOINT.

**Duties may include:**

* Guides the development and use of complex models, tools and algorithms to identify trends and patterns in Big Data.
* Guides modeling NGA’s architectures, requirements, and systems performance and considers NGA and NSG strategies and overall vision for the future of GEOINT.
* Guides the creation of models to support analysis of alternatives, performance trades, design trades and new capabilities and develops alternatives for deployment based on MS&A results in existing NSG architectures and cloud environments.
* Guides the work of Mid- and Junior-level contractor MS&A Engineers.
* Refer to Section 3.5: Modeling, Simulation and Analysis (MS&A) for a listing of expected work activities the MS&A Engineer would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program, or related equivalent additional experience.
* Senior-level experience working in government or industry modeling large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Knowledge of tools development and use in cloud environments.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Machine learning experience.
* Senior-level experience in Operations Research.
* Experience performing MS&A on solutions using Cloud-based technologies.
* Experience performing MS&A on solutions using structured and unstructured Big Data.
* Experience performing MS&A on solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 5c: Modeling, Simulation and Analysis Engineer (Mid-Level)

**Overall Assignment Description:**

Mid-level Modeling, Simulation and Analysis (MS&A) Engineers conduct modeling, simulation and analysis activities in support of business stakeholders, analysts, and warfighters to define and analyze system and data requirements to support NGA business and mission processes to ensure timely and accurate GEOINT.

**Duties may include:**

* Assists Government with the development and use of complex models, tools and algorithms to identify trends and patterns in Big Data.
* Supports developing models NGA’s architectures, requirements, and systems performance and considers NGA and NSG strategies and overall vision for the future of GEOINT.
* Supports creating models to support analysis of alternatives, performance trades, design trades and new capabilities and develops alternatives for deployment based on MS&A results in existing NSG architectures and cloud environments.
* Refer to Section 3.5: Modeling, Simulation and Analysis (MS&A) for a listing of expected work activities the MS&A Engineer would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program, or related equivalent additional experience.
* Mid-level working experience in government or industry modeling large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Master’s degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program. Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Mid-level working experience in Operations Research.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 5d: Modeling, Simulation and Analysis Engineer (Junior-Level)

**Overall Assignment Description:**

Junior-level Modeling, Simulation and Analysis (MS&A) Engineers guide and conduct modeling, simulation and analysis activities in support of business stakeholders, analysts, and warfighters to define and analyze system and data requirements to support NGA business and mission processes to ensure timely and accurate GEOINT.

**Duties may include:**

* Support the development and use of complex models, tools and algorithms to identify trends and patterns in Big Data.
* Support modeling NGA’s architectures, requirements, and systems performance and considers NGA and NSG strategies and overall vision for the future of GEOINT.
* Support the creation of models to support analysis of alternatives, performance trades, design trades and new capabilities and develops alternatives for deployment based on MS&A results in existing NSG architectures and cloud environments.
* Refer to Section 3.5: Modeling, Simulation and Analysis (MS&A) for a listing of expected work activities the MS&A Engineer would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, Mathematics, or related STEM degree program, or related equivalent additional experience.
* Junior-level experience working in government or industry modeling large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 6a: Systems Architect (Expert-Level)

**Overall Assignment Description:**

Expert-level Systems Architects assist in leading the design and development of solutions for complex applications problems, API design, data services, platform services, cloud services and infrastructure services to meet user requirements and align to strategic goals and the Enterprise Architecture.

**Duties may include:**

* Assists Government in directing the design, development, maintenance, and documentation of solution architectures ensuring traceability to the Enterprise architecture and Enterprise requirements.
* Guides the analysis of user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations.
* Guides development of proposed changes to the solutions architecture design based on analysis of requirements and new technology.
* Oversees and coordinates the work of Senior-, Mid-, and Junior-level Systems Architect contractors.
* Refer to Section 3.1 for a listing of expected work activities the Systems Architect position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience in government or industry in relevant work areas including: Enterprise Architecture, Solution Architecture, Data Architecture, Department of Defense Architecture Framework (DoDAF), or Intelligence Community’s (IC) Program Architecture Guidance (PAG).

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Federated Enterprise Architect Certifications: Certified Enterprise Architect
* National Defense University, College of Information and Cyberspace, Enterprise Architecture Certification
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 6b: Systems Architect (Senior-Level)

**Overall Assignment Description:**

Senior-level Systems Architects guide the design and development of solutions for complex applications problems, API design, data services, platform services, cloud services and infrastructure services to meet user requirements and align to strategic goals and the Enterprise Architecture.

**Duties may include:**

* Guides Mid-Level and Junior-Level systems architects in the design, development, maintenance, and documentation of solution architectures ensuring traceability to the Enterprise architecture and Enterprise requirements.
* Guides the analysis of user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations.
* Guides Mid-level and Junior-level systems architects in the development of proposed changes to the solutions architecture design based on analysis of requirements and new technology.
* Refer to Section 3.1 for a listing of expected work activities the Systems Architect position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level or higher experience working in government or industry in relevant work areas including: Enterprise Architecture, Solution Architecture, Data Architecture, Department of Defense Architecture Framework (DoDAF), or Intelligence Community’s (IC) Program Architecture Guidance (PAG).

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Federated Enterprise Architect Certifications: Certified Enterprise Architect
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 6c: Systems Architect (Mid-Level)

**Overall Assignment Description:**

Mid-level Systems Architects support the design and development of solutions for complex applications problems, API design, data services, platform services, cloud services and infrastructure services to meet user requirements and align to strategic goals and the Enterprise Architecture.

**Duties may include:**

* Assists in the design, development, maintenance, and documentation of solution architectures ensuring traceability to the Enterprise architecture and Enterprise requirements.
* Performs the analysis of user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations.
* Assists in the development of proposed changes to the solutions architecture design based on analysis of requirements and new technology.
* Refer to Section 3.1 for a listing of expected work activities the Systems Architect position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level or higher experience working in government or industry in relevant work areas including: Enterprise Architecture, Solution Architecture, Data Architecture, Department of Defense Architecture Framework (DoDAF), or Intelligence Community’s (IC) Program Architecture Guidance (PAG).

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Federated Enterprise Architect Certifications: Certified Enterprise Architect
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 7a: SAR Imagery Scientist (Expert-Level)

**Overall Assignment Description:**

Synthetic Aperture Radar (SAR) Imagery Scientist (IS) has a detailed understanding of radar phenomenology from the signal processing phase and the resulting information delivered in the complex phase history data for intelligence exploitation across the enterprise. They understand the application of non-literal imagery and how to apply complex mathematical algorithms to extract relevant intelligence information. They have developed numerous testing plans to evaluate the performance of a variety of types of algorithms when applied to radar data in order to support Order of Battle. The IS possess the knowledge of how to design performance testing to verify and validate a broad range of radar based algorithms. The results of this developed process shall be incorporated into all future radar based algorithms development for application to NSG radar data.

The IS will work as a team member of the NSG Radar Ground program using best practices from other NGA programs and organizations working on algorithm verification and validation.

Providing matrixed support to the ATT Sensor Engagement Lead for Radar, the IS serves as a key member of the customer’s technical team and a focal point for mission engineering, mission integration, and development oversight.

**Duties may include:**

* Engage with customers and users to define future enterprise-level capabilities
* Lead or participate in customer and program strategic and tactical planning activities relevant to Radar
* Lead or participate in the development of radar process that will be included in the overall enterprise system architectures to test, verify and validate Radar algorithms
* Assess new technologies and their overall performance
* Conduct Analysis of Alternatives (AoAs) and provide data-driven recommendations
* Leverage SAR experiences to provide insight on the development of key technical products, such as capability roadmaps, CONOPS documents, and white papers
* Leverage SAR experiences to provide insight on the identification, tracking, mitigation, and resolution technical risks and issues to ensure the timely, functionally efficient, and cost effective stand-up of new capabilities
* Identify project key decision points and provide Go/No-Go recommendations
* Conduct user outreach to communicate enterprise-level architecture changes, operational concepts, and project status, and accept user inputs for optimization of delivery plans
* Produce weekly activity reports for use by government customers and the program
* Ability to develop and present effective technical presentations to senior management and to technical/non-technical audiences; must possess strong written and verbal communications skills
* Ability to explain technical issues clearly/accurately to technical/non-technical audiences; and conduct issue coordination within and across agencies
* Ability to work with customers to resolve technical and programmatic issues

**Skills and Experience:**

**Required:**

* Bachelor's degree in Computer Science, Imagery Science, Mathematics, Engineering, or a related STEM degree program, or related equivalent additional experience.
* Expert-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* 10+ years of SAR imagery science with a minimum of 6 years of recent agency-specific experience.
* 5+ years of related experience with systems engineering, systems integration, or systems development.

**Desired:**

* Master’s degree in Computer Science, Imagery Science, Mathematics, Engineering, or related STEM degree program.
* 5+ years of experience in the SAR discipline of GEOINT analytic tradecraft designing and testing algorithm performance.
* 3+ years of experience in the use or engineering of GIS applications.
* Demonstrated knowledge of the ODNI Analytic Modernization effort and its supporting elements, including ABI and SOM.

#### Position 7b: SAR Imagery Scientist (Senior-Level)

**Overall Assignment Description:**

Synthetic Aperture Radar (SAR) Imagery Scientist (IS) has a detailed understanding of radar phenomenology from the signal processing phase and the resulting information delivered in the complex phase history data for intelligence exploitation across the enterprise. They understand the application of non-literal imagery and how to apply complex mathematical algorithms to extract relevant intelligence information. They have developed numerous testing plans to evaluate the performance of a variety of types of algorithms when applied to radar data in order to support Order of Battle. The IS possess the knowledge of how to design performance testing to verify and validate a broad range of radar based algorithms. The results of this developed process shall be incorporated into all future radar based algorithms development for application to NSG radar data.

The IS will work as a team member of the NSG Radar Ground program using best practices from other NGA programs and organizations working on algorithm verification and validation.

Providing matrixed support to the ATT Sensor Engagement Lead for Radar, the IS serves as a key member of the customer’s technical team and a focal point for mission engineering, mission integration, and development oversight.

**Duties may include:**

* Engage with customers and users to define future enterprise-level capabilities
* Lead or participate in customer and program strategic and tactical planning activities relevant to Radar
* Lead or participate in the development of radar process that will be included in the overall enterprise system architectures to test, verify and validate Radar algorithms
* Assess new technologies and their overall performance
* Conduct Analysis of Alternatives (AoAs) and provide data-driven recommendations
* Leverage SAR experiences to provide insight on the development of key technical products, such as capability roadmaps, CONOPS documents, and white papers
* Leverage SAR experiences to provide insight on the identification, tracking, mitigation, and resolution technical risks and issues to ensure the timely, functionally efficient, and cost effective stand-up of new capabilities
* Identify project key decision points and provide Go/No-Go recommendations
* Conduct user outreach to communicate enterprise-level architecture changes, operational concepts, and project status, and accept user inputs for optimization of delivery plans
* Produce weekly activity reports for use by government customers and the program
* Ability to develop and present effective technical presentations to senior management and to technical/non-technical audiences; must possess strong written and verbal communications skills
* Ability to explain technical issues clearly/accurately to technical/non-technical audiences; and conduct issue coordination within and across agencies
* Ability to work with customers to resolve technical and programmatic issues

**Skills and Experience:**

**Required:**

* Bachelor's degree in Computer Science, Imagery Science, Mathematics, Engineering, or related STEM degree program, or related equivalent additional experience.
* Senior-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* 7+ years of SAR imagery science with a minimum of 4 years of recent agency-specific experience.
* 5+ years of related experience with systems engineering, systems integration, or systems development.

**Desired:**

* Master’s degree in Computer Science, Imagery Science, Mathematics, Engineering, or related STEM degree program.
* 5+ years of experience in the SAR discipline of GEOINT analytic tradecraft designing and testing algorithm performance.
* 3+ years of experience in the use or engineering of GIS applications.
* Demonstrated knowledge of the ODNI Analytic Modernization effort and its supporting elements, including ABI and SOM.

#### Position 8a: Requirements Engineer (Expert-Level)

**Overall Assignment Description:**

Requirements Engineers are Systems Engineers that apply a structured approach to design and implementation of systems and processes. They capture and translate mission and customer requirements in order to transform them into capabilities, testing, and validation of services. Requirements Engineers analyze and allocate requirements to systems architecture components and oversee the development, testing, and validation of systems and services. They also coordinate the integration of systems and services into enterprise architecture and oversee deployment. They are responsible to the program Chief Engineer and the engineering team to achieve desired outcomes for the customer.

**Duties may include:**

* Decomposing and allocating strategic level requirements/needs from ECDs, SOCs, ICBDs, CDDs, and Agency CONOPS, as appropriate.
* Maintaining consistency with the Agency’s requirements process and CIO-T strategy while developing engineering artifacts, requirements documentation, and business cases.
* Implementing strategic plans and programs in coordination with senior internal and external stakeholders.
* Building and maintaining collaborative relationships with NGA Integrated Program Offices, segments, matrixed technical offices, other NGA acquisition offices, and process stakeholders.
* Interfacing with the Agency Model-Based Systems Engineering (MBSE) system.
* Developing and maintaining a Requirements Traceability Verification Matrix (RVTM) for the program to ensure all requirements are allocated and tested as needed.
* Developing and maintaining program performance measures.
* Developing, communicating, and participating in systems engineering projects or boards; applying in-depth knowledge to committees and working groups that plan, collaborate, and execute systems programs and initiatives.
* Ensuring management is informed of all issues, risks and opportunities in a timely manner.
* Use the Joint Architecture Reference Models (JARM) to describe, analyze, and identify potential architectural service gaps, support AOA, leverage existing resources, and assist with invest and divest decisions for the program and the agency.
* Capture strategic Sensor Program requirements from associated Concept of Operations Documents.
* Guiding Senior-, Mid-, and Junior-level Requirements Engineers.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience working in a Requirements Engineering discipline or a closely-related field that demonstrates the ability to successfully perform the tasks associated with this work.
* Experience tracing program/project requirements to the source requirement such as the Joint Architecture Reference Models (JARM), and JARM Technical Service Types (TSTs) for duplication analysis and gap analysis.
* Experience with tools such as JIRA, CONFLUENCE, and Tableau for tracking requirements, documentation, and backlog progress.
* Ability to coordinate with users and stakeholders to develop Sensor program requirements for new and changing mission needs.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Knowledge of the geospatial intelligence mission and its contributions to the Intelligence Community.
* Familiarity with NGA’s Request for Change (RFC) process to validate and assign program requirements to NGA segments.
* Familiarity with agile development to include participation in scrums, development of solution epics, lean business cases, program epics, user stories, and features.
* Scrum master experience.
* Experience using DOORS Next Generation (DOORS NG) to manage requirements and interface with Enterprise Requirements Management.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 8b: Requirements Engineer (Senior-Level)

**Overall Assignment Description:**

Requirements Engineers are Systems Engineers that apply a structured approach to design and implementation of systems and processes. They capture and translate mission and customer requirements in order to transform them into capabilities, testing, and validation of services. Requirements Engineers analyze and allocate requirements to systems architecture components and oversee the development, testing, and validation of systems and services. They also coordinate the integration of systems and services into enterprise architecture and oversee deployment. They are responsible to the program Chief Engineer and the engineering team to achieve desired outcomes for the customer.

**Duties may include:**

* Decomposing and allocating strategic level requirements/needs from ECDs, SOCs, ICBDs, CDDs, and Agency CONOPS, as appropriate.
* Maintaining consistency with the Agency’s requirements process and CIO-T strategy while developing engineering artifacts, requirements documentation, and business cases.
* Implementing strategic plans and programs in coordination with senior internal and external stakeholders.
* Building and maintaining collaborative relationships with NGA Integrated Program Offices, segments, matrixed technical offices, other NGA acquisition offices, and process stakeholders.
* Interfacing with the Agency Model-Based Systems Engineering (MBSE) system.
* Developing and maintaining a Requirements Traceability Verification Matrix (RVTM) for the program to ensure all requirements are allocated and tested as needed.
* Developing and maintaining program performance measures.
* Developing, communicating, and participating in systems engineering projects or boards; applying in-depth knowledge to committees and working groups that plan, collaborate, and execute systems programs and initiatives.
* Ensuring management is informed of all issues, risks and opportunities in a timely manner.
* Use the Joint Architecture Reference Models (JARM) to describe, analyze, and identify potential architectural service gaps, support AOA, leverage existing resources, and assist with invest and divest decisions for the program and the agency.
* Capture strategic Sensor Program requirements from associated Concept of Operations Documents.
* Guiding Mid-, and Junior-level Requirements Engineers.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level or higher experience working in a Requirements Engineering discipline or a closely-related field that demonstrates the ability to successfully perform the tasks associated with this work.
* Experience tracing program/project requirements to the source requirement such as the Joint Architecture Reference Models (JARM), and JARM Technical Service Types (TSTs) for duplication analysis and gap analysis.
* Ability to coordinate with users and stakeholders to develop Sensor program requirements for new and changing mission needs.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Knowledge of the geospatial intelligence mission and its contributions to the Intelligence Community.
* Familiarity with NGA’s Request for Change (RFC) process to validate and assign program requirements to NGA segments.
* Familiarity with agile development to include participation in scrums, development of solution epics, lean business cases, program epics, user stories, and features.
* Scrum master experience.
* Experience using DOORS Next Generation (DOORS NG) to manage requirements and interface with Enterprise Requirements Management.
* Experience with tools such as JIRA, CONFLUENCE, and Tableau for tracking requirements, documentation, and backlog progress.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 8c: Requirements Engineer (Mid-Level)

**Overall Assignment Description:**

Requirements Engineers are Systems Engineers that apply a structured approach to design and implementation of systems and processes. They capture and translate mission and customer requirements in order to transform them into capabilities, testing, and validation of services. Requirements Engineers analyze and allocate requirements to systems architecture components and oversee the development, testing, and validation of systems and services. They also coordinate the integration of systems and services into enterprise architecture and oversee deployment. They are responsible to the program Chief Engineer and the engineering team to achieve desired outcomes for the customer.

**Duties may include:**

* Decomposing and allocating strategic level requirements/needs from ECDs, SOCs, ICBDs, CDDs, and Agency CONOPS, as appropriate.
* Maintaining consistency with the Agency’s requirements process and CIO-T strategy while developing engineering artifacts, requirements documentation, and business cases.
* Implementing strategic plans and programs in coordination with senior internal and external stakeholders.
* Building and maintaining collaborative relationships with NGA Integrated Program Offices, segments, matrixed technical offices, other NGA acquisition offices, and process stakeholders.
* Interfacing with the Agency Model-Based Systems Engineering (MBSE) system.
* Developing and maintaining a Requirements Traceability Verification Matrix (RVTM) for the program to ensure all requirements are allocated and tested as needed.
* Developing and maintaining program performance measures.
* Developing, communicating, and participating in systems engineering projects or boards; applying in-depth knowledge to committees and working groups that plan, collaborate, and execute systems programs and initiatives.
* Ensuring management is informed of all issues, risks and opportunities in a timely manner.
* Use the Joint Architecture Reference Models (JARM) to describe, analyze, and identify potential architectural service gaps, support AOA, leverage existing resources, and assist with invest and divest decisions for the program and the agency.
* Capture strategic Sensor Program requirements from associated Concept of Operations Documents.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level or higher experience working in a Requirements Engineering discipline or a closely-related field that demonstrates the ability to successfully perform the tasks associated with this work.
* Experience tracing program/project requirements to the source requirement such as the Joint Architecture Reference Models (JARM), and JARM Technical Service Types (TSTs) for duplication analysis and gap analysis.
* Ability to coordinate with users and stakeholders to develop Sensor program requirements for new and changing mission needs.

**Desired:**

* Knowledge of the geospatial intelligence mission and its contributions to the Intelligence Community.
* Familiarity with NGA’s Request for Change (RFC) process to validate and assign program requirements to NGA segments.
* Familiarity with agile development to include participation in scrums, development of solution epics, lean business cases, program epics, user stories, and features.
* Scrum master experience.
* Experience using DOORS Next Generation (DOORS NG) to manage requirements and interface with Enterprise Requirements Management.
* Experience with tools such as JIRA, CONFLUENCE, and Tableau for tracking requirements, documentation, and backlog progress.

#### Position 9a: Systems Integrator (Expert-Level)

**Overall Assignment Description:**

Expert-level Systems Integrators support the Government by leading and overseeing the integrity of the NSG/ASG systems-of-systems enterprise. They lead and oversee planning, implementation approaches, testing, documenting, and maintaining solutions for cloud, on premise, and hybrid services, systems or subsystems using defined processes and tools.

**Duties may include:**

* Leads and performs systems integration activities across the NSG, ASG and Federal Agencies to ensure timely and accurate GEOINT.
* Leads and oversees a total systems perspective including a technical understanding of relationships, dependencies and requirements of for cloud, on premise, and hybrid services, infrastructure and security domains.
* Oversees the preparation of engineering plans and site installation technical design packages.
* Guides the work of Senior-, Mid-, and Junior-level contractor Systems Integrators.
* Refer to Section 3.3 for a listing of expected work activities the Systems Integrator position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 9b: Systems Integrator (Senior-Level)

**Overall Assignment Description:**

Senior-level Systems Integrators support the Government by leading and overseeing the integrity of the NSG/ASG systems-of-systems enterprise. They lead and oversee planning, implementation approaches, testing, documenting, and maintaining solutions for cloud, on premise, and hybrid services, systems or subsystems using defined processes and tools.

**Duties may include:**

* Assists with leading and performing systems integration activities across the NSG, ASG and Federal Agencies to ensure timely and accurate GEOINT.
* Assists with leading and overseeing a total systems perspective including a technical understanding of relationships, dependencies and requirements of cloud, on premise, and hybrid services, infrastructure and security domains.
* Assists with overseeing the preparation of engineering plans and site installation technical design packages.
* Guides the work of Mid- and Junior-level contractor Systems Integrators.
* Refer to Section 3.3 for a listing of expected work activities the Systems Integrator position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level or higher systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 9c: Systems Integrator (Mid-Level)

**Overall Assignment Description:**

Mid-level Systems Integrators support the Government by coordinating and overseeing the integrity of the NSG/ASG systems-of-systems enterprise. They coordinate with system owners with planning, implementation approaches, testing, documenting, and maintaining solutions for cloud, on premise, and hybrid services, systems or subsystems using defined processes and tools.

**Duties may include:**

* Assists with coordinating and performing systems integration activities across the NSG, ASG and Federal Agencies to ensure timely and accurate GEOINT.
* Assists with coordinating and overseeing a total systems perspective including a technical understanding of relationships, dependencies and requirements of cloud, on premise, and hybrid services, infrastructure and security domains.
* Assists with the coordination of engineering plans and site installation technical design packages.
* Refer to Section 3.3 for a listing of expected work activities the Systems Integrator position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level or higher systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 9d: Systems Integrator (Junior-Level)

**Overall Assignment Description:**

Junior-level Systems Integrators support the Government by coordinating and overseeing the integrity of the NSG/ASG systems-of-systems enterprise. They coordinate with system owners with planning, implementation approaches, testing, documenting, and maintaining solutions for cloud, on premise, and hybrid services, systems or subsystems using defined processes and tools.

**Duties may include:**

* Supports with coordinating of and performs systems integration activities across the NSG, ASG and Federal Agencies to ensure timely and accurate GEOINT.
* Supports with coordinating and overseeing a total systems perspective including a technical understanding of relationships, dependencies and requirements of cloud, on premise, and hybrid services, infrastructure and security domains.
* Supports the coordination of engineering plans and site installation technical design packages.
* Refer to Section 3.3 for a listing of expected work activities the Systems Integrator position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Junior-level or higher systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 10a: Test Systems Engineer (Expert-Level)

**Overall Assignment Description:**

Expert-level Test Systems Engineers assist in leading Application, System and Integration Testing teams performing test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

**Duties may include:**

* Guides Senior-, Mid- and Junior-level system engineers performing test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
* Oversees testing of applications and application programming interfaces (APIs) in DevOps pipelines utilizing quality assurance measures established by the government and industry best practices.
* Oversees independent integration testing on system software and hardware to determine the system’s compliance with specified requirements.
* Plans and executes manual tests, and automated test scripts using scripting and programming languages.
* Leads technical investigations for defects discovered during test activities.
* Refer to Section 3.3.2 for a listing of expected work activities the Test Systems Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with test management and defect tracking tools.
* Experience with traditional, Agile, and DevOps development practices and associated testing strategies.
* Working knowledge of Software Development Frameworks.
* Previous IC or DoD program/project work experience.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Experience with JMeterand, Jenkins, Docker, Postman, Swagger, Nexus, Apigee or GitHub/GitLab (or equivalent software packages), Java, Bash, Curl, XML, JSON, SQL, Python, Javascript, and AWS and C2S.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience

#### Position 10b: Test Systems Engineer (Senior-Level)

**Overall Assignment Description:**

Senior-level Test Systems Engineers assist in leading Application, System and Integration Testing teams performing test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

**Duties may include:**

* Guides Mid-level and Junior-level system engineers performing test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
* Performs testing of applications and application programming interfaces (APIs) in DevOps pipelines utilizing quality assurance measures established by the government and industry best practices.
* Performs independent integration testing on system software and hardware to determine the system’s compliance with specified requirements.
* Plans and executes manual tests, and automated test scripts using scripting and programming languages.
* Supports technical investigations for defects discovered during test activities.
* Refer to Section 3.3.2 for a listing of expected work activities the Test Systems Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with test management and defect tracking tools.
* Experience with traditional, Agile, and DevOps development practices and associated testing strategies.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Experience with JMeterand, Jenkins, Docker, Postman, Swagger, Nexus, Apigee or GitHub/GitLab (or equivalent software packages), Java, Bash, Curl, XML, JSON, SQL, Python, Javascript, and AWS and C2S.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Software Development Frameworks.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 10c: Test Systems Engineer (Mid-Level)

**Overall Assignment Description:**

Mid-level Test Systems Engineers perform Application, System and Integration Testing across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

**Duties may include:**

* Performs test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
* Performs testing of applications and application programming interfaces (APIs) in DevOps pipelines utilizing quality assurance measures established by the government and industry best practices.
* Performs independent integration testing on the system software or hardware to determine the system’s compliance with specified requirements.
* Plans and executes manual tests, and automated test scripts using scripting and programming languages.
* Supports technical investigations for defects discovered during test activities.
* Refer to Section 3.3.2 for a listing of expected work activities the Test Systems Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Mid-level systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with test management and defect tracking tools.
* Experience with traditional, Agile, and DevOps development practices and associated testing strategies.

**Desired:**

* Master’s degree in in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Experience with JMeterand, Jenkins, Docker, Postman, Swagger, Nexus, Apigee or GitHub/GitLab (or equivalent software packages), Java, Bash, Curl, XML, JSON, SQL, Python, JavaScript, and AWS and C2S.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Working knowledge of Software Development Frameworks.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 10d: Test Systems Engineer (Junior-Level)

**Overall Assignment Description:**

Junior-level Test Systems Engineers support Application, System and Integration Testing across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies to ensure timely and accurate GEOINT.

**Duties may include:**

* Supports test and evaluation across the National System of Geospatial-intelligence (NSG), Allied System of Geospatial-intelligence (ASG) and Federal Agencies.
* Supports testing of applications and application programming interfaces (APIs) in DevOps pipelines utilizing quality assurance measures established by the government and industry best practices.
* Supports independent integration testing on the system software or hardware to determine the system’s compliance with specified requirements.
* Supports technical investigations for defects discovered during test activities.
* Refer to Section 3.3.2 for a listing of expected work activities the Test Systems Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Junior-level systems integration experience working in government or industry integrating large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Experience with JMeterand, Jenkins, Docker, Postman, Swagger, Nexus, Apigee or GitHub/GitLab (or equivalent software packages), Java, Bash, Curl, XML, JSON, SQL, Python, JavaScript, and AWS and C2S.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 11a: Business Process Manager (Expert-Level)

**Overall Assignment Description:**

Expert-level Business Process Managers (BPM) lead and oversee identifying and applying organizational resources to meet defined engineering work objectives and deliverables. The BPM will assure efficient use of engineering staffing and material resources, with accountability and reporting responsibility for identifying compliance, addressing shortfalls or deficiencies, and managing plans for change response within the program. The Business Process Manager will evaluate current IT engineering and architecture processes, to identify process improvements for optimizing operational efficiency. The Business Process Manager will directly support the Program Manager and Lead Integrator.

**Duties may include:**

* Analyzes user service needs and requirements to determine if approach, risk, and feasibility of planned engineering activities are within time and cost constraints.
* Supports assessments on progress towards specified engineering objectives and milestones.
* Reviews existing programs and assists in making process refinements to improve efficiency.
* Collaborates with systems analysts, engineers, programmers and others to deliver effective business management processes that support them in attaining mission objectives.
* Assembles and facilitate the business case for accomplishing activities as defined by the lead engineers, integrators, architects, and other stakeholders.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Engineering Management, Management Information Systems, Operations Research, Business Operations, Business Management, Mathematics, Statistics, or other relevant degree program, or related equivalent additional experience.
* Expert-level experience in engineering management, business management, business operations, operations research, or other fields that provide the required knowledge, skills and abilities.
* Expert-level experience in evaluating organizational processes and translating into supporting technical capabilities.
* Expert-level working experience in government or industry in DoD/IC Acquisition Process or PPBES.
* Demonstrated experience providing guidance and direction in high technology programs.

**Desired:**

* Master’s degree in in Engineering Management, Management Information Systems, Operations Research, Business Operations, Business Management, Mathematics, Statistics, or other relevant degree program.
* Certifications (or equivalent experience) in Certified Business Process Professional (CBPP), Operations Research, Model-Based Systems Engineering, process innovation, value analysis or Enterprise process management.
* Experience establishing processes for solutions using Cloud-based technologies.
* Experience establishing processes for solutions using structured and unstructured Big Data.
* Experience establishing processes for solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 12a: Data Architect (Expert-Level)

**Overall Assignment Description:**

Expert-level Data Architects serve as a technical resource for strategic oversight and planning of database structural design and development. They provide technical, strategic guidance to senior- level database administrators and application developers in the creation of new databases, as well as the maintenance of major existing databases supporting evolving applications. Data architect positions provide strategic guidance to data stewards on the development and implementation approaches for data models to support organizational business and mission systems and processes.

**Duties may include:**

* Consults to all levels of the organization on the design, development and implementation approaches for logical database structures and classification schemas.
* Develops policies and procedures to build, maintain and leverage the data model.
* Provides technical, strategic guidance on the development of metadata tags, Document Type Definitions (DTD), and schemas using appropriate technologies for representation of data and data relationships.
* Ensures that metadata and data standards and definitions will support both business and mission processes and system implementation approaches, and NSG/ASG requirements for sharing data.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Expert-level experience working in government or industry in relevant work areas including: Enterprise Architecture, Solution Architecture, Data Architecture, Department of Defense Architecture Framework (DoDAF), or Intelligence Community’s (IC) Program Architecture Guidance (PAG).
* Previous working experience in government or industry in data strategy, models, flow models and standards.
* Previous working experience in government or industry in Data Management services (compliance, cataloging, provenance, identifier, registry, metrics, recall & revision)

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Previous working experience in government or industry with Data access services, APIs, Linked Data (REST, SOAP, OGC, etc.).
* Previous working experience in government or industry in Data Queuing, Messaging, Orchestration, Choreography services.
* Previous working experience in government or industry with Data Security Services (IAA, DPM, DRM, PDP, PEP, PAP, etc.).
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 13a: Functional Specialist/Advisor (Expert-Level)

**Overall Assignment Description:**

Provides expertise, guidance, consultation, facilitation, and thought leadership to the client and/or project team based on specialized in-depth expertise in such fields as: engineering and technology; policy and administration; planning; analysis; training and development; facilities; communications; visual design; human capital; business; and management. Ensures that quality is an integral part of the development, design and manufacture of products or services. Monitors requirements through test and measurement activities; manages/leads quality assurance activities.

**Duties may include:**

* Analyze user needs and software requirements to determine approach and feasibility of design within time and cost constraints.
* Analyze information to determine, recommend, and plan computer specifications and layouts, and peripheral equipment modifications.
* Review existing programs and assist in making refinements, reducing operating time, and improve current techniques.
* Confer with systems analysts, engineers, programmers and others to design system and to obtain information on project limitations and capabilities, performance requirements and interfaces.
* Obtain and evaluate information on factors such as reporting formats required, costs, and security needs to determine hardware configuration.
* Estimate software development costs and schedule.
* Consult with customers about software system design and maintenance.
* Consult with engineering staff to evaluate interface between hardware and software, develop specifications and performance requirements and resolve customer problems.
* Confer with data processing and project managers to obtain information on limitations and capabilities for data processing projects.
* Prepare reports and correspondence concerning project specifications, activities and status.
* Evaluate factors such as reporting formats required, cost constraints, and need for security restrictions to determine hardware configuration.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Computer Science, Engineering, Remote Sensing, Photogrammetry, Image Science, Data Science, Information Technology, Management Information Systems, Geographic Information Systems, Geography, or other related degree program, or related equivalent additional experience.
* Demonstrated experience providing guidance and direction in high technology programs.
* Expert-level experience in guidance, consultation, facilitation, and thought leadership to the client and/or project team based on specialized in-depth expertise in such fields as:
  + engineering and technology
  + policy and administration
  + program management
  + planning
  + analysis
  + training and development
  + facilities
  + communications
  + visual design
  + human capital
  + business

**Desired:**

* Master’s degree or higher in Remote Sensing, Photogrammetry, Image Science, Computer Science, Data Science, Engineering, Information Technology, Management Information Systems, Geographic Information Systems, Geography, or other related degree program.
* Expert-level experience in engineering, design and analysis of IT or related systems experience in all phases of design, development, analysis and documentation, and development of standards and guidelines for tasks being performed.
* Expert-level experience working with DoD/IC Acquisition Process or PPBES.
* Experience with Remote Sensing, Photogrammetry, or Image Science.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.
* Experience with Agile software development methodologies.
* Experience with:
  + Project Management software (Project, Primavera)
  + Financial tracking software
  + Customer relationship management CRM software.
  + Enterprise resource planning ERP software.

#### Position 13b: Functional Specialist/Advisor (Senior-Level)

**Overall Assignment Description:**

Provides expertise, guidance, consultation, facilitation, and thought leadership to the client and/or project team based on specialized in-depth expertise in such fields as: engineering and technology; policy and administration; planning; analysis; training and development; facilities; communications; visual design; human capital; business; and management. Ensures that quality is an integral part of the development, design and manufacture of products or services. Monitors requirements through test and measurement activities; manages/leads quality assurance activities.

**Duties may include:**

* Analyze user needs and software requirements to determine approach and feasibility of design within time and cost constraints.
* Analyze information to determine, recommend, and plan computer specifications and layouts, and peripheral equipment modifications.
* Review existing programs and assist in making refinements, reducing operating time, and improve current techniques.
* Confer with systems analysts, engineers, programmers and others to design system and to obtain information on project limitations and capabilities, performance requirements and interfaces.
* Obtain and evaluate information on factors such as reporting formats required, costs, and security needs to determine hardware configuration.
* Estimate software development costs and schedule.
* Consult with customers about software system design and maintenance.
* Consult with engineering staff to evaluate interface between hardware and software, develop specifications and performance requirements and resolve customer problems.
* Confer with data processing and project managers to obtain information on limitations and capabilities for data processing projects.
* Prepare reports and correspondence concerning project specifications, activities and status.
* Evaluate factors such as reporting formats required, cost constraints, and need for security restrictions to determine hardware configuration.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Computer Science, Engineering, Remote Sensing, Photogrammetry, Image Science, Data Science, Information Technology, Management Information Systems, Geographic Information Systems, Geography, or other related degree program, or related equivalent additional experience.
* Demonstrated experience providing guidance and direction in high technology programs.
* Senior-level or higher experience in guidance, consultation, facilitation, and thought leadership to the client and/or project team based on specialized in-depth expertise in such fields as:
  + engineering and technology
  + policy and administration
  + program management
  + planning
  + analysis
  + training and development
  + facilities
  + communications
  + visual design
  + human capital
  + business

**Desired:**

* Master’s degree or higher in Remote Sensing, Photogrammetry, Image Science, Computer Science, Data Science, Engineering, Information Technology, Management Information Systems, Geographic Information Systems, Geography, or other related degree program.
* Senior-level or higher experience in engineering, design and analysis of IT or related systems experience in all phases of design, development, analysis and documentation, and development of standards and guidelines for tasks being performed.
* Senior-level or higher experience working with DoD/IC Acquisition Process or PPBES.
* Experience with Remote Sensing, Photogrammetry, or Image Science.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.
* Experience with Agile software development methodologies.
* Experience with:
  + Project Management software (Project, Primavera)
  + Financial tracking software
  + Customer relationship management CRM software.
  + Enterprise resource planning ERP software.

#### Position 14a: Lead Integrator (Expert-Level)

**Overall Assignment Description:**

Expert-level Lead Integrators provide integration support to the Government and coordinate contract engineering activities across organizational boundaries for system/capability development or modification efforts. They lead enterprise planning of engineering and integration activities and perform issue resolution. The Lead Integrator works directly with Government Program Office staff to prioritize work assignments and align the necessary resources to execute tasks.

**Duties may include:**

* Assists Government Program Office in assessing, documenting, and tracking new engineering requirements and facilitating technical exchange meetings (TEMs) used to inform Government and Contractor teams about systems engineering and integration activities.
* Supports the Government in resource planning, coordination and analysis.
* Coordinates project schedules to support defined strategic effectivities.
* Plans and prepares for major systems engineering Program Reviews and Control Gate Reviews including preparation of briefings/presentations, technical assessments and recommendations.
* Assists in the preparation of documents, records, forms, reports, and plans covering systems engineering and integration activities.
* Provide change management oversight, to plan resource alignment, identify priority adjustments, and identify needed skillsets.
* Guides the work of contractor Technical Integrators.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program; or related equivalent additional experience.
* Expert-level experience in engineering, design and analysis of IT or related systems experience in all phases of design, development, analysis and documentation, and development of standards and guidelines for tasks being performed.
* Expert-level working experience in government or industry in DoD/IC Acquisition Process or PPBES.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program. Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Software Development Framework certification.
* INCOSE Expert Systems engineering Professional (ESEP) certification.
* Experience Integrating solutions using Cloud-based technologies.
* Experience Integrating solutions using structured and unstructured Big Data.
* Experience Integrating solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Experience with and strong understanding of systems engineering lifecycle.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 15a: SAR Integration Engineer (Expert-Level)

**Overall Assignment Description:**

Expert-level Synthetic Aperture Radar (SAR) Integration Engineers are responsible for leading the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Provides a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Plans, coordinates, and documents solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Analyses, designs, tests, and evaluates systems that handle Synthetic Aperture Radar (SAR) data through the TPED process.
* Plans and coordinates data management practices to treat and handle data as a resource.
* Guides the work of Senior-, Mid-, and Junior-level contractor Integration Engineers.
* Refer to Section 3.3 for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Engineering, Computer Science, Imagery Analysis, or related STEM degree program, or related equivalent additional experience.
* Experience in government or industry integrating systems that process SAR data.
* Expert-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Master’s degree or higher in Engineering, Computer Science, Imagery Analysis, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Experience Integrating solutions using structured and unstructured Big Data.
* Experience Integrating solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Experience Integrating solutions using Cloud-based technologies.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 15b: SAR Integration Engineer (Senior-Level)

**Overall Assignment Description:**

Senior-level Synthetic Aperture Radar (SAR) Integration Engineers are responsible for leading the development of program and project integration solutions across the enterprise and determining integration/interface requirements. They work with systems engineers, solutions architects and programmers to ensure applications and systems interoperate to deliver end-to-end mission solutions and maintain the integrity of the system-of-system enterprise.

**Duties may include:**

* Provides a total systems perspective including a technical understanding of relationships, dependencies and requirements of hardware and software components.
* Plans, coordinates, and documents solutions to total systems or subsystems using internally created and/or commercial off-the-shelf products.
* Analyses, designs, tests, and evaluates systems that handle Synthetic Aperture Radar (SAR) data through the TPED process.
* Plans and coordinates data management practices to treat and handle data as a resource.
* Guides the work of Mid-, and Junior-level contractor Integration Engineers.
* Refer to Section 3.3 for a listing of expected work activities the Integration Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher in Engineering, Computer Science, Imagery Analysis, or related STEM degree program, or related equivalent additional experience.
* Experience in government or industry integrating systems that process SAR data.
* Senior-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, PPBES Process or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.

**Desired:**

* Master’s degree or higher in Engineering, Computer Science, Imagery Analysis, or related STEM degree program.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Experience Integrating solutions using structured and unstructured Big Data.
* Experience Integrating solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Experience Integrating solutions using Cloud-based technologies.
* Previous NGA and/or NSG/ASG program/project work experience
* Previous IC or DoD program/project work experience

#### Position 16a: Systems Analyst (Expert-Level)

Expert-level Systems Analysts analyze internal and external customer Enterprise IT needs; research and recommend hardware, software and process/procedural solutions to Enterprise IT problems; analyze science, engineering, business, and all other data processing problems for application to the Enterprise IT environment; analyzes user requirements, procedures, and problems to automate or improve existing IT capabilities and workflows; provide adopt/adapt/buy recommendations for commercial/government developed products; and conduct business case/cost-benefit analysis for Enterprise IT recommendations.

**Duties may include:**

* Analyzes potential IT solutions to determine their application in existing or proposed Enterprise architecture
* Recommends potential IT solutions
* Advises on new techniques and estimated costs associated with new or revised programs and utilities - taking into consideration personnel, time, and hardware requirements and makes trade-off analyses
* Reviews documentation, describing system specifications and operating instructions, and revise existing processes and procedures to correct deficiencies and maintain more effective data handling, conversion, input/output requirements and storage.
* Confers with clients regarding the nature of the information processing or computation needs a computer program is to address.
* Consults with management to ensure agreement on system principles.
* Interviews or surveys analysts and other IT users, observes job performance or analyzes the job to determine what information is processed and how it is processed.
* Analyzes information processing or computation needs to recommend IT solutions, using techniques such as structured analysis, data modeling and information engineering.
* Assesses the usefulness of pre-developed application packages and adapts them to a user environment.
* Prepares cost-benefit and return-on-investment analyses to aid in decisions on IT solution implementation.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher 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, or related equivalent additional experience.
* Expert-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with and strong understanding of 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.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Software Development Framework certification.
* Extensive work experience in the field of geospatial intelligence.
* Experience engineering solutions using Cloud-based technologies.
* Experience engineering solutions using structured and unstructured Big Data.
* Experience engineering solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Demonstrated expertise in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 16b: Systems Analyst (Senior-Level)

**Overall Assignment Description:**

Senior-level Systems Analysts analyze internal and external customer Enterprise IT needs; research and recommend hardware, software and process/procedural solutions to Enterprise IT problems; analyze science, engineering, business, and all other data processing problems for application to the Enterprise IT environment; analyzes user requirements, procedures, and problems to automate or improve existing IT capabilities and workflows; provide adopt/adapt/buy recommendations for commercial/government developed products; and conduct business case/cost-benefit analysis for Enterprise IT recommendations.

**Duties may include:**

* Analyzes potential IT solutions to determine their application in existing or proposed Enterprise architecture.
* Recommends potential IT solutions.
* Advises on new techniques and estimated costs associated with new or revised programs and utilities taking into consideration personnel, time, and hardware requirements and make trade-off analyses.
* Reviews documentation, describing system specifications and operating instructions, and revise existing processes and procedures to correct deficiencies and maintain more effective data handling, conversion, input/output requirements and storage.
* Confers with clients regarding the nature of the information processing or computation needs a computer program is to address.
* Consults with management to ensure agreement on system principles.
* Interviews or surveys analysts and other IT users, observes job performance or analyzes the job to determine what information is processed and how it is processed.
* Analyzes information processing or computation needs to recommend IT solutions, using techniques such as structured analysis, data modeling and information engineering.
* Assesses the usefulness of pre-developed application packages and adapts them to a user environment.
* Assists in the preparation of cost-benefit and return-on-investment analyses to aid in decisions on IT solution implementation.

**Skills and Experience:**

**Required:**

* Bachelor’s degree or higher 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, or related equivalent additional experience.
* Senior-level experience working in government or industry in relevant work areas including: DoD/IC Acquisition Process, Requirements Process, or systems engineering of large complex System of Systems or Service Oriented Architecture environments residing in cloud, on premise, or hybrid infrastructures.
* Experience with and strong understanding of 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.
* Working knowledge of Model-Based Systems Engineering, processes, tools and languages.
* Software Development Framework certification.
* Extensive work experience in the field of geospatial intelligence.
* Experience engineering solutions using Cloud-based technologies.
* Experience engineering solutions using structured and unstructured Big Data.
* Experience engineering solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Demonstrated expertise in photogrammetry, remote sensing, image science, information sciences, geographic information systems, geomatics, or related fields.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 17b: Technical Writer (Senior-Level)

**Overall Assignment Description:**

Senior-level technical writers produce high-quality documentation in support of program milestones and systems engineering technical reviews, and communicate program goals/objectives/strategies to a variety of audiences.

**Duties may include:**

* Prepare acquisition technical and programmatic documentation and artifacts in support of Systems Engineering Technical Reviews, acquisition milestones, and program communications
* Review and recommend improvements to existing processes.
* Maintain version control of program office documentation.
* Review and edit drafts for clarity, punctuation, grammar, and content.
* Properly format documents.
* Work closely with members of technical teams to design appropriate graphics and tables and to ensure accuracy of technical descriptions.
* Develop templates based on feedback from leadership and program office personnel.
* Contribute to technical briefings, issue papers, summaries, and other program documentation for overview/status briefs, and Milestone and acquisition documents.

**Skills and Experience:**

**Required:**

* Associate’s degree or an equivalent combination of education and training that provides the required knowledge, skills and abilities.
* Extremely strong technical writing, editing, proofreading, and page composition skills.
* Proficiency in Microsoft Office Word and PowerPoint.
* Familiarity with Systems Engineering concepts and terminology.

**Desired:**

* Bachelor’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Experience and familiarity with the DoD Acquisition Process.
* Practical working knowledge and experience with documentation, processes, protocols, formats, and deadlines.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 18b: Cloud Architect (Senior-Level)

**Overall Assignment Description:**

Senior-level Cloud Architects assist in leading and overseeing the planning and development of cloud services architectures. They ensure analysis of cloud service alternatives are conducted and prioritized to ensure the Government properly architects business and mission solutions using cloud bases systems and services.

**Duties may include:**

* Assists with leading cultural change for cloud adoption.
* Assists with overseeing development and coordination of cloud architectures.
* Develops cloud strategies and coordinating adoption of cloud-based solutions.
* Guides the work of Mid-, and Junior-level contractor Cloud Architects.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level experience in cloud-based systems architecting.
* One or more Cloud Certifications to include, but are not limited to the following:
  + Cloud Certified Solutions Architect
  + AWS Certified
  + Cisco Certified Networking Administrator – Cloud
  + Cisco Certified Network Professional – Cloud
  + IBM Certified Cloud Solution Architect
  + MCSE Cloud Platform and Infrastructure
  + VMware Certified Professional (VCP7-CMA)

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Senior-level experience working in government or industry, within Cloud Architect profession.
* Experience architecting solutions using structured and unstructured Big Data.
* Experience architecting solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Experience architecting solutions using Model-Based Systems Engineering.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 19a: Cloud Engineer (Expert-Level)

**Overall Assignment Description:**

Expert-level Cloud Engineers lead work to define implementation approaches and plans to ensure optimum cloud performance and reliability across the servers, networks, and related utilities and hardware that comprise the cloud infrastructure. They conduct analysis and make reliable engineering recommendations to ensure six sigma reliability/resiliency of the cloud infrastructure. They monitor and report on cloud utilization and plan continuous process improvement.

**Duties may include:**

* Supports applying a systematic, engineering approach to the design, architecting, requirements elicitation, development, operation and use of cloud technologies and platforms for mission solutions.
* Leverages software-, platform- and infrastructure- as-a-service to deliver GEOINT solutions.
* Ensures optimum efficiencies for the utilization of cloud services.
* Guides the work of Senior-, Mid- and Junior-level contractor Cloud Engineers.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level or higher experience in working government or industry leading or supporting cloud-based systems engineering efforts.
* One or more Cloud Certifications, but are not limited to the following:
  + AWS Certified
  + Cisco Certified Networking Administrator – Cloud
  + Cisco Certified Network Professional – Cloud
  + IBM Certified Cloud Solution Architect
  + MCSE Cloud Platform and Infrastructure
  + VMware Certified Professional (VCP7-CMA)

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Citrix XenApp expertise or certification
* Experience in Scripting/automation via PowerShell, VBscript, AutoIT or similar.
* SAN storage infrastructure experience (EMC in particular).
* Microsoft Clustering experience.
* Microsoft SQL experience (installation, configuration, troubleshooting experience)
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 19b: Cloud Engineer (Senior-Level)

**Overall Assignment Description:**

Senior-level Cloud Engineers define, implementation approaches and plans to ensure optimum cloud performance and reliability across the servers, networks, and related utilities and hardware that comprise the cloud infrastructure. They conduct analysis and make reliable engineering recommendations to ensure six sigma reliability/resiliency of the cloud infrastructure. They monitor and report on cloud utilization and plan continuous process improvement.

**Duties may include:**

* Supports applying a systematic, engineering approach to the design, architecting, requirements elicitation, development, operation and use of cloud technologies and platforms for mission solutions.
* Leverages software-, platform- and infrastructure- as-a-service to deliver GEOINT solutions.
* Ensures optimum efficiencies for the utilization of cloud services.
* Guides the work of Mid- and Junior-level contractor Cloud Engineers.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Senior-level or higher experience in working government or industry leading or supporting cloud-based systems engineering efforts.
* One or more Cloud Certifications, but are not limited to the following:
  + AWS Certified
  + Cisco Certified Networking Administrator – Cloud
  + Cisco Certified Network Professional – Cloud
  + IBM Certified Cloud Solution Architect
  + MCSE Cloud Platform and Infrastructure
  + VMware Certified Professional (VCP7-CMA)

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Citrix XenApp expertise or certification
* Experience in Scripting/automation via PowerShell, VBscript, AutoIT or similar.
* SAN storage infrastructure experience (EMC in particular).
* Microsoft Clustering experience.
* Microsoft SQL experience (installation, configuration, troubleshooting experience)
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 20a: Cloud Solutions Architect/Engineer (Expert-Level)

**Overall Assignment Description:**

The Cloud Solutions Architect/Engineer will work across Cloud Ops, Security, Development, Auditing teams at NGA to design resilient, flexible, and scalable cloud solutions to support GEOINT Enterprise operations.

**Duties may include:**

* Formulate, document, and communicate methodologies for building and operating highly available, scalable services.
* Provide assistance in reducing and resolving production incidents (e.g. Site Reliability Engineering).
* Look for opportunities to improve all operations processes.
* Evaluate, build and modify automation for deploying and operating production services.
* Create, assess, update and maintain documentation pertaining to Product Lines.
* Develop and design elastic, resilient and self-healing Cloud native applications and workflows.
* Crafting excellent documentation for respective projects and carrying ownership for the code and the instructional tutorials of how to use it.
* Work with team members to design, architect and implement solutions across geographic locations.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Five or more years of experience with cloud-based services or technologies.
* Understanding of object-oriented software with languages like Java, C++, Python or Ruby ideally in SOA applications.
* Understanding of networking and core Internet protocols (e.g. TCP/IP, DNS, SMTP, HTTP, and distributed networks).
* Understanding of industry standards for designing and implementing IaaS/PaaS/SaaS in Cloud environments.
* Experience with modern container orchestration systems, such as: Kubernetes, Mesos, DC/OS, Swarm.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Certified AWS Solutions Architect
* Two or more years of demonstrated experience in Site Reliability Engineering functions.
* Experience with Linux/UNIX systems and the best practices for deploying applications to those stacks.
* Experience designing, implementing, and operating in a DevSecOps.
* Experience using APIs and RESTful services.
* Experience with infrastructure configuration and automations processes and tools: Terraform, Puppet, Ansible, Chef, Fabric.
* Experience with security in the cloud, such as: Intrusion, penetration, and vulnerability scanning.
* Experience with monitoring solutions, such as: ELK, Splunk, SUMO, Nagios, Prometheus.
* Experience with build automation and continuous integration/delivery ecosystem capabilities, such as: Git, Gerrit, Maven/Gradle, Jenkins, Docker, Nexus.

#### Position 20b: Cloud Solutions Architect/Engineer (Senior-Level)

**Overall Assignment Description:**

The Cloud Solutions Architect/Engineer will work across Cloud Ops, Security, Development, Auditing teams at NGA to design resilient, flexible, and scalable cloud solutions to support GEOINT Enterprise operations.

**Duties may include:**

* Formulate, document, and communicate methodologies for building and operating highly available, scalable services.
* Provide assistance in reducing and resolving production incidents (e.g. Site Reliability Engineering).
* Look for opportunities to improve all operations processes.
* Evaluate, build and modify automation for deploying and operating production services.
* Create, assess, update and maintain documentation pertaining to Product Lines.
* Develop and design elastic, resilient and self-healing Cloud native applications and workflows.
* Crafting excellent documentation for respective projects and carrying ownership for the code and the instructional tutorials of how to use it.
* Work with team members to design, architect and implement solutions across geographic locations.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Five or more years of experience with cloud-based services or technologies.
* Understanding of object-oriented software with languages like Java, C++, Python or Ruby ideally in SOA applications.
* Understanding of networking and core Internet protocols (e.g. TCP/IP, DNS, SMTP, HTTP, and distributed networks).
* Understanding of industry standards for designing and implementing IaaS/PaaS/SaaS in Cloud environments.
* Experience with modern container orchestration systems, such as: Kubernetes, Mesos, DC/OS, Swarm.

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Certified AWS Solutions Architect
* Two or more years of demonstrated experience in Site Reliability Engineering functions.
* Experience with Linux/UNIX systems and the best practices for deploying applications to those stacks.
* Experience designing, implementing, and operating in a DevSecOps.
* Experience using APIs and RESTful services.
* Experience with infrastructure configuration and automations processes and tools: Terraform, Puppet, Ansible, Chef, Fabric.
* Experience with security in the cloud, such as: Intrusion, penetration, and vulnerability scanning.
* Experience with monitoring solutions, such as: ELK, Splunk, SUMO, Nagios, Prometheus.
* Experience with build automation and continuous integration/delivery ecosystem capabilities, such as: Git, Gerrit, Maven/Gradle, Jenkins, Docker, Nexus.

#### Position 20c: Cloud Solutions Architect/Engineer (Mid-Level)

**Overall Assignment Description:**

The Cloud Solutions Architect/Engineer will work across Cloud Ops, Security, Development, Auditing teams at NGA to design resilient, flexible, and scalable cloud solutions to support GEOINT Enterprise operations.

**Duties may include:**

* Support the formulation, documentation, and communication of methodologies for building and operating highly available, scalable services.
* Assist in reducing and resolving production incidents (e.g. Site Reliability Engineering).
* Look for opportunities to improve all operations processes.
* Assist in the evaluation, build and modification of automation for deploying and operating production services.
* Support the creation, assessment, update and maintenance of documentation pertaining to Product Lines.
* Support the development and design of elastic, resilient and self-healing Cloud native applications and workflows.
* Assist in crafting excellent documentation for respective projects and carrying ownership for the code and the instructional tutorials of how to use it.
* Work with team members to design, architect and implement solutions across geographic locations.

**Skills and Experience:**

**Required:**

* Bachelor's degree or higher in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program, or related equivalent additional experience.
* Three or more years of experience with cloud-based services or technologies.
* Understanding of object-oriented software with languages like Java, C++, Python or Ruby ideally in SOA applications.
* Understanding of networking and core Internet protocols (e.g. TCP/IP, DNS, SMTP, HTTP, and distributed networks).

**Desired:**

* Master’s degree in Computer Science, Information Technology, Engineering, Engineering Management, Management Information Systems, or related STEM degree program.
* Certified AWS Solutions Architect
* Two or more years of demonstrated experience in Site Reliability Engineering functions.
* Experience with Linux/UNIX systems and the best practices for deploying applications to those stacks.
* Experience designing, implementing, and operating in a DevSecOps.
* Experience using APIs and RESTful services.
* Experience with infrastructure configuration and automations processes and tools: Terraform, Puppet, Ansible, Chef, Fabric.
* Experience with security in the cloud, such as: Intrusion, penetration, and vulnerability scanning.
* Experience with monitoring solutions, such as: ELK, Splunk, SUMO, Nagios, Prometheus.
* Experience with build automation and continuous integration/delivery ecosystem capabilities, such as: Git, Gerrit, Maven/Gradle, Jenkins, Docker, Nexus.
* Understanding of industry standards for designing and implementing IaaS/PaaS/SaaS in Cloud environments.
* Experience with modern container orchestration systems, such as: Kubernetes, Mesos, DC/OS, Swarm.

#### Position 21a: Cyber Security Engineer (Expert-Level)

**Overall Assignment Description:**

Expert Cyber Security Engineers lead work to capture and refine information security requirements and ensure that the requirements are integrated into information technology component products and information systems through purposeful security architecting, design, development, and configuration.

**Duties may include:**

* Assists with leading development teams working to design and develop information systems or upgrade legacy systems.
* Conducts product research and support Analysis of Alternative (AoA) activities that independently identify the most appropriate security solutions.
* Assists with leading the development of system concepts, contribute to the capability phase of the systems development lifecycle, and translate technology and environmental conditions (e.g., law and regulation) into system security designs and processes.
* Assists with leading the development and documentation of Security Architectures, Roadmaps, and investments.
* Guides the work of Senior-, Mid-, and Junior-level contractor Cyber Security Engineers.
* Refer to Section 3.1.7: Security Architecture and Engineering for a listing of expected work activities the Cyber Security Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor’s or higher in Cyber Security, Computer Science, Computer Engineering, or other relevant engineering or IT security field, or related equivalent additional experience.
* Expert-level experience in government or industry within Cyber Security Engineering.
* Ten or more years’ experience engineering Cyber Security solutions with at least five years using cloud-based technologies.
* DoD 8570 Level III (IASAE) certification compliance.

**Desired:**

* Master’s degree in Cyber Security, Computer Science, Computer Engineering, or other relevant engineering or IT security field.
* Expert-level experience in government or industry leading enterprise-level cyber security efforts involving architecting, designing, development, and configuration of cloud- and on premise-based systems and software.
* Certified Cloud Security (ISC2).
* AWS Certified Security Specialty.
* Understanding of AWS Data protection mechanisms, AWS data encryption methods and AWS mechanisms to implement.
* Understanding of security operations and risks.
* Understanding of DevSecOps.
* Experience engineering Cyber Security solutions using structured and unstructured Big Data.
* Experience engineering Cyber Security solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 21b: Cyber Security Engineer (Senior-Level)

**Overall Assignment Description:**

Senior Cyber Security Engineers capture and refine information security requirements and ensure that the requirements are integrated into information technology component products and information systems through purposeful security architecting, design, development, and configuration.

**Duties may include:**

* Assists with development teams working to design and develop information systems or upgrade legacy systems.
* Conducts product research and support Analysis of Alternative (AoA) activities that independently identify the most appropriate security solutions.
* Assists with leading the development of system concepts, contribute to the capability phase of the systems development lifecycle, and translate technology and environmental conditions (e.g., law and regulation) into system security designs and processes.
* Assists with leading the development and documentation of Security Architectures, Roadmaps, and investments.
* Guides the work of Mid- and Junior-level contractor Cyber Security Engineers.
* Refer to Section 3.1.7: Security Architecture and Engineering for a listing of expected work activities the Cyber Security Engineer position would be required to support.

**Skills and Experience:**

**Required:**

* Bachelor’s or higher in Cyber Security, Computer Science, Computer Engineering, or other relevant engineering or IT security field, or related equivalent additional experience.
* Senior-level experience in government or industry within Cyber Security Engineering.
* Five or more years’ experience engineering Cyber Security solutions using cloud-based technologies.
* DoD 8570 Level III (IASAE) certification compliance.

**Desired:**

* Master’s degree in Cyber Security, Computer Science, Computer Engineering, or other relevant engineering or IT security field.
* Senior-level experience in government or industry leading enterprise-level cyber security efforts involving architecting, designing, development, and configuration of cloud- and on premise-based systems and software.
* Certified Cloud Security (ISC2).
* AWS Certified Security Specialty.
* Understanding of AWS Data protection mechanisms, AWS data encryption methods and AWS mechanisms to implement.
* Understanding of security operations and risks.
* Understanding of DevSecOps.
* Experience engineering Cyber Security solutions using structured and unstructured Big Data.
* Experience engineering Cyber Security solutions using Automation, Augmentation and Artificial Intelligence technologies.
* Previous NGA and/or NSG/ASG program/project work experience.
* Previous IC or DoD program/project work experience.

#### Position 22a: NRG Lead (Expert)

**Overall Assignment Description:**

The Expert-level NRG Lead is responsible for ensuring the successful execution of contract support to the Government program and serves as the authoritative point of contact for the Vendor on all program performance matters. The NRG Lead interfaces with the NSES Program Management Office (PMO), Task Order Program Manager (PM), Government acquisition PMO and Government Leads to ensure all positions supporting the acquisition program are staffed and/or backfilled quickly with qualified personnel in accordance with the specified TO Position Descriptions. The Program Support Lead is responsible for ensuring work deliverables are submitted on time, resolving performance shortfalls or deficiencies, supervising NSES contractor personnel and communicating overarching Government acquisition program objectives and goals to the contractor team. The NRG Lead works with the Government PMs to plan and orchestrate work activities for coordinated deliveries and comprehensive solutions. The NRG Lead provides technical expertise and assistance to the Government on programmatic matters related to lifecycle engineering and industry program management best practices to maximize the program’s successful contribution to NGA’s GEOINT mission.

**Duties may include:**

* Provide contract management support to the Government acquisition program PM to ensure the timely execution of all financial, staffing and administrative contract actions.
* Provide program management support to Government Program Managers to facilitate the technical execution of the TO. Program Management support includes cost, schedule, risk, requirements and performance management of all project staff and work activities.
* Work with Government Leads to ensure contractor personnel are qualified to perform the assigned task, tasks are understood and completed within the specified timelines, and potential personnel problems are pre-empted.
* Consult and coordinate with the NSES PMO, NEE PM, and appropriate Government TO Leads for new resource requirements and associated cost estimates resulting from technical work scope adjustments.
* Pre-coordinate all travel and training with the NSES PMO and Government PM Leads prior to scheduling.
* Ensure programmatic alignment and adherence to the NGA Vision, Planning and Programs, CIO‑T Priorities and TA Priorities.
* Support NGA and IC Steering Groups, Advisory Groups and Governance Boards as required.
* Perform day-to-day contractual and programmatic management of the acquisition program.

**Skills and Experience:**

**Required:**

* Bachelor's degree in Computer Science, Computer Systems Engineering, Engineering, Engineering Management, Information Technology, Mathematics, System Engineering, or a related STEM Degree Program, or related equivalent additional experience.
* Expert-level experience as a Program/Project Manager in terms of cost, schedule, performance, and risk management.
* Experience successfully building and leading large teams of engineering staff.
* Experience in engineering, design and analysis of IT or related systems experience in all phases of design, development, analysis and documentation, and development of standards and guidelines for tasks being performed.
* Previous IC or DoD program/project work experience.
* Previous NGA and/or NSG/ASG program/project work experience.

**Desired:**

* Expert-level work experience in government or industry, in DoD/IC Acquisition Process or PPBES.
* Project Management Professional (PMP), DAWIA Level III certification in Program Management, or equivalent specialized training and experience with Project Management tools and techniques.
* Working knowledge of Model Based Systems Engineering, processes, tools and languages.
* Experience with the development and/or review of cost estimates and the associated technical work scope necessary to achieve stated objectives.
* Experience in lean six-sigma.
* Experience in tailoring and using both Agile and Waterfall development methodologies
* Experience with the identification of technical issues and proactive communication of possible impacts.
* Experience in performing validation and verification of various engineering results and deliverables to ensure the highest quality results against customer requirements.
* Working knowledge of Cloud-based technologies.
* Working knowledge of structured and unstructured Big Data.
* Working knowledge of Automation, Augmentation and Artificial Intelligence technologies.
* Experience with and strong understanding of systems engineering lifecycle.