**Job Title:**

Senior System Engineer

**Job Description:**

Analyzes user’s requirements, concept of operations documents, and high-level system architectures to develop system requirements specifications. Analyzes system requirements and leads design and development activities. Guides users in formulating requirements, advises alternative approaches, and conducts feasibility studies. Provides technical leadership for the integration of requirements, design, and technology. Incorporates new plans, designs and systems into ongoing operations. Develops technical documentation. Develops system Architecture and system design documentation. Guides system development and implementation planning through assessment or preparation of system engineering management plans and system integration and test plans. Interacts with the Government regarding Systems Engineering technical considerations and for associated problems, issues or conflicts. Ultimate responsibility for the technical integrity of work performed and deliverables associated with the Systems Engineering area of responsibility. Communicates with other program personnel, government overseers, and senior executives.

**Senior System Engineer Required Skills:**

The Senior System Engineer shall be able to perform all of the indicated tasks of a System Engineer plus all of the following indicated tasks:

* Provides technical direction for the development, engineering, interfacing, integration, and testing of specific components of complex hardware/software systems to include requirements elicitation, analysis and functional allocation, conducting systems requirements reviews, developing concepts of operation and interface standards, developing system architectures, and performing technical/non-technical assessment and management as well as end-to-end flow analysis
* Implements comprehensive SOA solutions
* Implements operational view, technical standards view, and system and services view for architectures using applicable DoDAF standards
* Develops scenarios (threads) and an Operational Concept that describes the interactions between the system, the user, and the environment, that satisfies operational, support, maintenance, and disposal needs
* Reviews and/or approves system engineering documentation to ensure that processes and specifications meet system needs and are accurate, comprehensive, and complete
* Conducts quantitative analysis in non-functional system performance areas like Reliability, Maintainability, Vulnerability, Survivability, Produceability, etc.
* Establishes and follows a formal procedure for coordinating system integration activities among multiple teams, ensuring complete coverage of all interfaces
* Captures all interface designs in a common interface control format, and stores interface data in a commonly accessible repository
* Prepares time-line analysis diagrams illustrating the flow of time-dependent functions
* Establishes a process to formally and proactively control and manage changes to requirements, considers impacts prior to commitment to change, gains stakeholder buy-in, eliminates ambiguity, ensures traceability to source requirements, and tracks and settles open actions
* Assess each risk to the program and determine the probability of occurrence and quantified consequence of failure in accordance with an approved risk management plan
* Manages and ensures the technical integrity of the system baseline over time, continually updating it as various changes are imposed on the system during the lifecycle from development through deployment and operations & maintenance
* In conjunction with system stakeholders, plans the verification efforts of new and unproven designs early in the development life cycle to ensure compliance with established requirements
* Supports the planning and test analysis of the DoD Certification/Accreditation Process (as well as other Government Certification and Accreditation (C&A) processes)
* Supports the development and review of Joint Capability Integration Development System (JCIDS) documents (i.e.,Initial Capability Document, Capabilities Description Document, IA Strategy)

**Senior System Engineer Required Qualifications:**

* Fourteen (14) years experience in programs and contracts of similar scope, type, and complexity within the Federal government.
* BS or above from an accredited college or university in SE, CS, IS, Engineering Science, engineering management or related field is required.
* Five (5) years additional SE experience may be substituted for a Bachelors Degree.
* Technical Certification as a Certified System Engineering Professional (CSEP) from INCOSE, DAWIA SPRDE Level 2, or other equivalent certification is required.