Senior Systems Engineer - DRAFT

Class Code	FLSA Status	EEO-CAT	Rep Status	Salary Grade	Effective Date	Resolution #
TBD	Exempt	EEO1-Professionals	AFSCME	10	10/13/2021	21-036

DEFINITION: Under general direction, leads, plans, analyzes, develops, configures, customizes, installs, and maintains applications, business intelligence, reports, control systems, and other elements of information technology development and operations (IT DevOps) in the District; functions in a liaison capacity, combining business planning expertise with information technology to analyze and translate department and end-user business requirements into system implementation and supports. This is the advanced, lead-level within the classification series. There are two (2) levels within the Systems Engineer series that are distinguished from one another by the technical complexity of the assigned duties and the level of discretion and independent judgment exercised. Positions at this level are responsible for performing activities for highly complex systems projects.

This classification is distinguished from the Systems Engineer in that the senior level provides technical and functional direction to District and contract staff and participates in the more difficult and complex assignments. Incumbents at the senior level are expected to operate with a significant degree of independence and possess extensive knowledge of the District's enterprise systems and software products.

REPRESENTATIVE FUNCTIONS may include, but are not limited to the following:

- Plans, organizes, and directs the daily functions, operations, and activities of the Systems Engineering work unit responsible for a wide range of systems and software projects.
- Designs, installs, configures, upgrades, and maintains enterprise systems software and data platform; allocates, formats, customizes, and upgrades vendor software releases to meet District business needs and requirements.
- Confers with staff and provides technical support on the use of enterprise applications; supports development and operations by diagnosing complex problems, recommending and implementing solutions.
- Participates in the development and implementation of the system software, configuration management, business intelligence, and data platform.
- Understands Reliability, Availability, Maintainability, and Safety (RAMS) and system design engineering principles and best practices.
- Evaluates and translates conceptual application designs into business and user-centric IT solutions.
- Establishes and monitors procedures to maintain the integrity of production enterprise applications and business intelligence.
- Analyzes, designs, and implements critical paths for enterprise systems with high scalability, availability, and security.
- Develops and maintains documentation, procedures, and training for system software products.
- Participates in the development, implementation, and test drills of backup and disaster recovery procedures.
- Takes ownership of system requirement management and verification processes.
- Plans, coordinates, and directs a diverse range of information technology projects from inception to completion; areas of responsibility include enterprise systems and applications development projects, ensuring system compatibility and integration for all project deliverables.
- Participates in administering information technology-related contracts; prepares project specifications; evaluates submitted proposals and provides feedback on vendor qualifications and proposed services; monitors and evaluates contractor performance to ensure compliance with District standards; initiates corrective action as appropriate.
- Conducts meetings with District staff and internal training on business intelligence and data governance.
- Develops business intelligence dashboards and visuals for decision-makers based on the published data model and evolving business needs.
- Identifies technical and functional gaps in the system and minimizes the risk including manual workarounds.

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- Troubleshoots and identify business system deficiencies and issues; coordinates and implements modifications to systems and data relationships as needed.
- Performs related duties as required.

MINIMUM QUALIFICATIONS

Knowledge of: Operating systems, enterprise applications, and software products; development and operation (DevOps) principles and automation pipelines; asset management, dispatch, geo-spatial and scheduling software; enterprise applications monitoring, problem identification, tracking, resolution, and vendor support; structured quality assurance and analysis; application and automation scripts development; programming techniques and languages; distributed and service-oriented architecture, techniques of troubleshooting hardware, software and inter-connectivity problems; principles of IT security and project management, developing scopes of work, budgets and timelines; principles and techniques of conducting analytical studies, evaluating alternatives, and making sound recommendations; proficiency in technical writing and techniques of providing support to staff and end-users.

Ability to: Plan, design, upgrade, install, and tune enterprise application and ecosystems; create functional requirements, technical design, and systems specifications; provide technical, and operation support related to enterprise systems; write and modify instructions, procedures, manuals, documentation; analyze and evaluate information, problems, and situations to develop an effective course of action; prepare clear, concise and accurate oral and written reports; plan, organize, and coordinate the work of staff; provide leadership and work direction to team members; train staff in work procedures; establish and maintain effective working relationships with other District personnel in a fast-paced environment using principles of excellent customer service.

Education: Equivalent to a Bachelor's degree in Computer Science, Geographic Information Systems, Management Information Systems, or a closely related field. Additional years of experience as described below in the Experience section may be substituted for the education requirement on a year for year basis.

Experience: Seven (7) years of progressively responsible experience analyzing, installing, configuring, enhancing, and/or maintaining the components of systems or enterprise software implementation, operation, network, or three (3) years of experience at a level equivalent to the District's Systems Engineer classification.

License and Certification(s): International Council on Systems Engineering (INCOSE) Certification is desirable.

Physical Requirements: (1) Must maintain the physical condition necessary to perform tasks in an office setting operating a personal computer, keyboards, and other peripheral equipment. (2) Must possess the mobility necessary to transport oneself to other locations within the District, as required by the position.

Special Environmental Conditions: None.

Special Requirements: Must be willing to: (1) work outside regular business hours as required and (2) travel between the various District locations.

Established Date: (Res. #N/A)