

JOB DESCRIPTION
Senior Systems Administrator
Code Number: 10008

GENERAL PURPOSE

Under direction, serves as administrator for District computer platforms and networks; creates user profiles; monitors and tunes system and network performance; establishes and maintains the configuration of hardware, cabling and multi-platform communications software and protocols; coordinates the integration of multiple networks, platforms, applications and users; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A Senior Systems Administrator is responsible for planning operations, maintenance and integration of computer platforms and networks to provide effective systems and systems availability, communication and computing support to meet the District's mission and goals. Assignments are usually given in terms of broad operational or project requirements and performance is measured in terms of overall performance and results. Supervision of work assigned depends on the size, extent of District impact and visibility of assigned projects.

A Senior Systems Administrator is distinguished from a Systems Administrator II in that incumbents in the former class typically work with a significant degree of independence and have design and planning responsibilities and/or provides lead direction over others. A Senior Systems Administrator is further distinguished from a Senior Business Systems Analyst in that incumbents in the former class specialize in the performance of overall systems administration responsibilities.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

Serves as systems administrator for major computer/server platforms or other major system/communication networks; authorizes or executes the creation of system objects, including data directories, files, subsystems, job and message queues, communication and work station devices; establishes and maintains user and other authorization files; maintains system security to ensure system and data integrity; monitors and tunes the

system for optimal performance; analyzes system capacity issues and recommends system upgrades or replacements; manages and participates in the installation of system upgrades and fixes; maintains data and directories.

Evaluates, recommends, installs, configures, re-links and backs up Unix, Windows and other operating systems; tests gateways to facilitate data transport between RDBMS and various systems and applications; researches, diagnoses and resolves problems to minimize system downtime; documents system and network configuration and standards; establishes, monitors and adjusts system backup and recovery procedures and schedules.

Works with other Information Systems staff, technical specialists from other departments, vendors and end users to establish concurrent connectivity of multiple platforms and networks; acts as project leader or team member on multi-platform/network systems installations; installs and configures emulators; develops and recommends connectivity standards.

Interviews, analyzes and documents end user work process and systems requirements; develops or refines hardware, software and network specifications and drafts requests for proposal; evaluates and tests vendor products for conformance with District requirements and standards; recommends the selection and purchase of hardware and software; installs and evaluates new operating systems and upgrades.

Monitors and recommends the clean up of system disk storage; recommends and/or makes program modifications to enhance system performance; reviews, develops and/or recommends software to aid in the automated management of system performance; recommends naming standards to enhance the use of systems functions.

Participates in application and database development methodologies; translates system specifications into logical processes to prepare detailed system and database designs or enhancements; coordinates, supervises and participates with other team members in system analysis, design and development of applications or enhancements.

Develops, supervises and participates in executing system test plans; performs system and network configuration modifications and fixes to correct and optimize system performance and cost-effectiveness; develops and executes test scenarios and evaluates results.

Performs installation, maintenance and configuration to add PCs, remote workstation controllers and other devices to a network for general business and specialized technical applications; sets up and installs communications devices in accordance with established protocols and safeguards; establishes multi-site communication links and

firewalls; develops Internet standards and safeguards; designs and installs multi-platform interfaces.

Provides daily work instructions, guidance and performance feedback to team members when assigned; gives input for team member performance appraisal.

Troubleshoots system and hardware problems to identify the source of problems and perform or request fixes or repairs; works with hardware vendors to identify and resolve operating problems and performs repairs and maintenance.

Assists in preparing budget requests for server and network hardware and software to meet District capacity requirements.

Monitors trends and developments in systems, networking, multi-platform communication technologies and specialized technical applications such as Computer Aided Design (CAD); provides technical support to project study and development committees.

In the role of Project Leader:

Works on or assigns team members to work on information technology projects including hardware, software, and network components; oversees and participates in the overall implementation of projects.

Leads a project team, oversees and participates in project management process groups of initiating, planning, executing, monitoring and controlling, and closing.

Determines high-level project requirements, business needs, purpose or justification; and identifies stakeholders and functional area participation.

Refines project requirements, scope, objectives, deliverables, acceptance criteria, constraints, assumptions and alternative solutions; creates work breakdown structures and/or network diagrams; performs definition, sequencing, resource estimating, and duration estimating of project activities for overall schedule development; estimates activity costs and overall project budget; develops quality plans; identifies and documents project roles and responsibilities; determines information and communication needs of stakeholders; identifies risks and performs risk analysis and response planning; plans purchases, acquisitions and contracting services.

Performs activities to accomplish project objectives, collects project data and reports cost, schedule, technical and quality progress, and status information; ensures quality assurance; acquires and develops project team; makes needed information available to stakeholders; obtains and reviews quotations, bids, offers or proposals from sellers.

Collects, measures, and disseminates performance information; assesses measurements and trends for process improvements; reviews, approves and controls changes to deliverables; verifies and controls scope, schedule, costs, quality and risks; manages communications with stakeholders to satisfy requirements and resolve issues; performs contract administration.

Closes out all project activities, analyzes project success or failure, gathers lessons learned; monitors early operations and captures issues and archives project information for future use.

Performs related duties as assigned.

DESIRED MINIMUM QUALIFICATIONS

Knowledge of:

Principles, methods and techniques in the design and operation of information systems for mid-range computers and platforms equivalent to those used by the District, including operating system architecture, characteristics and commands; principles, practices and methods of systems administration and maintenance; network architecture and principles of communications and connectivity; relational database theory, functionality and applications development forms; principles and practices of systems analysis and design; CAD applications theory, functionality and applications development methodologies; server based operating systems (Unix, Solaris, Windows); Microsoft's Active Directory; TCP/IP; DNS; VI; Unix based scripting; Windows based scripting; networking; phone systems; FTP; Telnet; VPN; email; Database Management (Microsoft and Oracle); computer programming principles, techniques and procedures for business and technical system applications, including CAD; standard programming languages and utilities similar to those used by the District; specialized programming languages and utilities used in technical systems such as CAD; software development tools and utilities; project planning, prioritizing and scheduling techniques; systems troubleshooting principles and practices; basic accounting, statistical, business, office and engineering design and drafting procedures commonly supported by system applications.

Ability to:

Configure, maintain and manage the operations of a computer platform and/or network to achieve optimal technical performance and user support; analyze and define user requirements and recommend efficient, cost-effective hardware, software, network/communication and technical applications solutions; conduct analysis and feasibility studies; build servers; work on server hardware; administer user accounts; maintain file permissions; troubleshoot networking issues; maintain a

backup infrastructure; analyze complex problems, evaluate alternatives and make sound recommendations; organize, plan and complete projects efficiently and in accordance with District quality standards; prepare clear, concise and accurate program documentation, user guides, reports of work performed, and other written materials; troubleshoot network, hardware, software and technical applications problems and make or recommend modifications; make sound, independent decisions within established guidelines; communicate clearly and effectively orally and in writing; work collaboratively and effectively with project team members; establish and maintain effective working relationships with end users, vendors, consultants and others encountered in the course of work; follow and apply written and oral work instructions.

Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from an accredited college or university with a bachelor's degree in computer science, mathematics, engineering or a closely related field; and five years of progressively responsible experience in systems analysis, design and administration; or an equivalent combination of training and experience.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this class, employees are regularly required to sit; talk or hear, in person and by telephone; use hands repetitively to finger, handle, feel or operate standard office equipment; and reach with hands or arms. Employees are frequently required to walk and stand and to regularly lift up to 50 pounds.

Specific vision abilities required by this job include close vision, the ability to distinguish colors and shades and the ability to adjust focus.

Mental Demands

While performing the duties of this class, employees are regularly required to use oral and written communication skills; read and interpret data, information and documents; analyze and solve problems; use math and mathematical reasoning; learn and apply new skills or information; perform highly detailed work on multiple, concurrent tasks; work under changing deadlines with frequent interruptions; work effectively as a team leader or member; and interact with District end users, employees, vendors and others encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employees work under typical office conditions, and the noise level is moderately quiet.

FLSA DETERMINATION: Meets administrative/computer exemption from overtime.