

JOB DESCRIPTION
Senior Network Administrator
Code Number: 10011

GENERAL PURPOSE

Under direction, serves as administrator for District voice, data and video communications systems; designs communications network architectures; prepares specifications for cable and communications switches and devices and their installation; monitors and tunes network performance; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A Senior Network Administrator is responsible for planning the design, installation, maintenance and integration of data, voice and video communications networks to provide effective and efficient systems, 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 Network Administrator is distinguished from a Senior Systems Administrator by the incumbent's specialization in the technical design, installation and management of District-wide data, voice and video communications networks.

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 communications network administrator for the network infrastructure that support the sharing of data across computer/server platforms and systems; designs data bus architectures, data interfaces, cable/cable layout and installation specifications and other network and communications devices and protocols.

Uses network analyzer technology and monitors network performance to ensure clean efficient data transmission and adequate network redundancies; evaluates, recommends, installs and configures network hardware, including bridges, cabling and other wiring equipment; installs communications devices in accordance with established

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protocols; designs and installs multi-platform interfaces; configures, tests, tunes and maintains network integrity and security to achieve optimal data communications system performance; researches, diagnoses and resolves problems to minimize system downtime; documents network configuration and standards.

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

Develops or refines cable network communications device specifications; drafts requests for qualifications and proposals; evaluates and tests vendor products for conformance with District requirements and standards; recommends the selection and purchase of hardware, software and cable.

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.

Manages and coordinates telephone and voice communications services, including adding, deleting and modifying circuits, planning and installing additional telephone lines, planning and installing switchboards and PBXs, installing and programming routers and designing and modifying communications closets; researches, evaluates and recommends the selection of telecommunications service providers; evaluates service performance; manages provider relationships.

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

Provides support through help desk for network and phone needs.

Evaluates software and coordinates installation of software with system administrators.

Maintains statistical data; prepares analyses and reports.

Assists in preparing budget requests for telecommunication and data communication equipment and costs.

Monitors trends and developments in voice and data network and communication technologies; provides technical support to project study and development committees.

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Performs related duties as assigned.

DESIRED MINIMUM QUALIFICATIONS

Knowledge of:

Principles, methods and techniques in the design, installation and operation of data, voice and video communications systems, equipment, devices and cabling; principles, practices, equipment and protocols for design, installation and operation of data communications networks; theory and principles of data architecture and network design; network operating systems and their idiosyncrasies; client-server processing requirements and constraints; practices and methods of systems administration and maintenance; principles and practices of systems analysis and design; principles and practices in design and operations of telecommunications networks and infrastructure; project planning, prioritizing and scheduling techniques; systems troubleshooting principles and practices; basic accounting, statistical, business and office procedures commonly supported by data and voice communication systems; principles and practices of sound business communications.

Ability to:

Configure, maintain and manage data and voice communication networks and infrastructure to achieve optimal technical performance and user support; analyze and define user requirements and recommend efficient, cost-effective hardware, software and network/communication solutions; conduct analysis and feasibility studies; 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 specifications, network documentation, reports of work performed, and other written materials; troubleshoot network hardware and software 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 those contacted in the course of work; follow and apply written and oral work instructions.

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Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a college or university with a bachelor's degree in computer science, mathematics or a closely related field; and five years of progressively responsible experience in voice and data network 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 and 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 10 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; however some duties may require climbing ladders up to 15 feet as well as accessing towers using a man lift or boom truck.

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