



CLASSIFICATION DESCRIPTION

BARGAINING UNIT: SEIU

CLASS CODE: 540350

SALARY RANGE: *TBD*

SENIOR NETWORK ENGINEER

BASIC FUNCTION:

Under the direction of an assigned administrator, or designee, performs a variety of highly responsible and complex professional and technical tasks in planning, analyzing and designing the district's information services system; installs, tests, configures and repairs the district-wide system and network (hardware and software), consisting of wide area networks (WAN) and local area networks (LAN); provides training, and ensures availability and usability of network services. This classification also provides support that includes, but is not limited to, enterprise systems (Active Directory, DNS, DHCP, email systems, and database systems) server-based, and networked systems.

MINIMUM QUALIFICATIONS

EDUCATION:

High school diploma (or equivalent) and Bachelor's degree in Management Information Systems, Computer Science, Information Technology or a Business Administration related discipline, or completion of a certification program in networks or systems certified by Cisco or Microsoft (CCNP, MCSE).

EXPERIENCE:

Equivalent to eight (8) years increasingly responsible experience in the analysis, design, development, administration, installation of local and wide area networks (LAN/WAN) infrastructures, computer hardware, peripheral equipment network systems and software and,

Minimum of two (2) years' experience as a lead or combination of education, training, and experience that produces the requisite knowledge and ability. Experience beyond four years may be substituted for the required education.

LICENSES AND OTHER REQUIREMENTS:

- Valid Class C Driver's license & availability of private transportation
- Insurability by the District's liability insurance carrier.

Desirable: Cisco CCNA Certification, Microsoft Certified Solution Expert (MCSE)

REPRESENTATIVE DUTIES:

- Leads, participates, and supervises the implementation, installation, upgrading, maintenance, monitoring, and troubleshooting of the District's network, including network device hardware, computer equipment, related peripheral equipment of the District's Wide Area Network (WAN), Local Area Networks (LAN), and multi-platform network operating systems and applications.

- Maintains high-level support focusing on design, implementation, and installation of the enterprise voice and data network as application solutions.
- Responsible for the design implementation, configuration, upgrading, testing, troubleshooting, tuning, and maintenance of a variety of complex network services, including: firewall, intrusion prevention, email, network monitoring, IP video surveillance, voice-over IP, IP paging, broadcasting, database servers, web and proxy servers, print, and file services, VPN services; configures and maintains the Internet/network access firewall and filters.
- Designs, plans and develops the District's network hardware and operating systems, including planning network topology, installations, and changes; configures network routing and switching software; maintains security on network and server equipment; provides immediate response to emergencies.
- Plans, organizes, directs, and evaluates the performance of assigned staff; establishes performance requirements and personal development targets; regularly monitors performance and provides coaching for performance improvement and development; recommends disciplinary action, up to and including termination, to address performance deficiencies, in accordance with the District human resources policies and labor contract provisions.
- Assist with the work of staff engaged in ensuring the availability of mission critical systems and providing problem resolution and support; establishes and maintains a high performance customer service-oriented environment, ensuring systematic and responsive client support and problem resolution techniques.
- Provides advanced technical support for the District's network operating systems and applications; troubleshoots and resolves network outages and bottlenecks; provides information, technical direction and training to staff on activities required to implement projects, system hardware and software installations and upgrades, new procedures and techniques related to the voice and data network.
- Coordinates review of the technical environment to evaluate and measure system performance and effectiveness; analyzes network traffic loads; coordinates the design, operation, installation, and maintenance of the network infrastructure.
- Maintains effective communication with administrators, support staff, end users, and vendors.
- Ensures the proper prioritization, timely completion, and meeting of deadlines for any assigned projects and tasks, as directed.
- Perform related duties as assigned.

NOTE: The statements listed above are intended to describe the general nature and level of work being performed by employees in this classification, and are not to be interpreted as an exhaustive list of responsibilities and qualifications required of personnel so classified. Reasonable accommodations will be made so that qualified employees can perform the essential functions of the job.

SUPERVISION:

General direction is received from an assigned administrator. Provides technical and functional direction to Network Engineers and technical staff.

KNOWLEDGE AND ABILITIES

KNOWLEDGE OF:

- Network architectures and theory and principles of local and wide area enterprise network design and integration, including routing, topologies, and protocols such as TCP/IP, BGP, EIGRP, OSPF, VLAN, SNMP, DNS, DHCP, VoIP, implementation and administration
- Principles, practices, methods, and techniques of advanced network administration.
- Industry design and configuration standards for enterprise networks, including: hardware, network protocols, desktop virtualization, server virtualization, network and cloud computing.
- Network management systems, including principles and practices of security management and security design.
- Principles, practices, techniques, concepts and methods of enterprise telecommunications networking, including industry standards, current trends and developments and systems integrations and optimization.
- Principles and practices of business and technical communications, including techniques in the development of system and user documentation.
- Operating principles, parameters, uses, capabilities, characteristics, and limitations of servers, network operating systems such as Windows Server, Linux Server, Windows OS, MacOS, ChromeOS, computer hardware, software, and related equipment.
- District organization, operations, policies, procedures, objectives, goals, rules, and regulations.
- Techniques, tools, practices, and analysis methodology used in developing and coordinating projects and supervising, training, and evaluating employees.
- Recording-keeping and report preparation techniques.
- Correct English usage, grammar, spelling, punctuation, and vocabulary in either written or oral communication, as applicable.
- Some positions may require correct usage, grammar, spelling, punctuation and vocabulary, in either written or oral communication, in a designated second language, as applicable.
- Oral and written communication skills.
- Interpersonal skills using tact, patience, and courtesy.
- Advanced-level research methods for qualitative and quantitative analysis and reports.
- Intermediate- to advanced-level math and statistics.

ABILITY TO:

- Analyze complex computer system and network issues, identify the reasons for network and network device problems, failures and malfunctions and develop optimal solutions.
- Analyze situations accurately with good judgment to adopt and recommend effective action plans.
- Perform difficult and complex tasks, practices, and procedures requiring accuracy, independent judgment, resourcefulness and knowledge of office functions and District policies.
- Install, configure, and troubleshoot network equipment, high speed copper and fiber connections.
- Configure industry-standard routers, switches, and wireless access points.
- Plan, organize, integrate, and participate effectively in project teams utilizing oral and written presentation skills.
- Monitor network trends and anomalies and make adjustments as required.
- Develop and recommend cost-effective technical system improvements
- Read, interpret and apply complex technical publications, manuals and other documentation.
- Identify data communication and information management issues and opportunities, analyze problems and alternatives and develop sound conclusions and recommendations.
- Develop, implement and effectively manage procedures and processes, including maintenance of schedules and timetables and preparation of reports on project status.

- Complete continuing projects while troubleshooting unexpected system problems.
- Standard principles, practices, and methods of project management.
- Principles and practices of effective supervision.
- Plan, organize, and coordinate work for self and others.
- Train, supervise and evaluate personnel.
- Meet schedules, timelines, and complete assignments with many interruptions.
- Maintain confidentiality of sensitive and privileged information.
- Utilize interpersonal skills of courtesy, tact, diplomacy, patience, and professionalism.
- Establish and maintain cooperative and effective working relationships with others including the application of good customer service principles.
- Maintain records.
- Quickly and accurately, prepare, compute, conduct, gather, read, comprehend, analyze, interpret, and comprehensively report on complex and technical concepts and information.
- Use proper spelling, punctuation, and grammar.
- Compose correspondence and written materials independently.
- Communicate effectively both orally and in writing in English and some positions may require a designated second language.
- Speak clearly and concisely and make presentations to small and large groups, and instruct users at all levels of district employees, as well as support technicians, in proper usage of various networks and programs.

WORKING CONDITIONS:

ENVIRONMENT: & PHYSICAL DEMANDS

- Dexterity of hands and fingers to operate modern office equipment;
- Hearing and speaking to exchange information;
- Sitting or standing for extended periods of time;
- Seeing to read a variety of materials, both in hard copy and soft copy format;
- Bending at the waist, kneeling, crouching;
- Lifting to manipulate, move, and use office and materials.

**DUTIES APPROVED
BOARD OF EDUCATION:**

**CLASSIFICATION ESTABLISHED
PERSONNEL COMMISSION:**