

CLASSIFICATION DESCRIPTION

TITLE: Network Architect/Administrator

<u>Title of Immediate Supervisor:</u> Director <u>Manager</u> of Technology	<u>Department:</u> Technology	<u>FLSA Status:</u> Exempt
<u>Accountable For (Job Titles):</u> Network Engineer <u>I, Network Engineer II</u> , System Specialist/Network, <u>System Specialist/Security, Field Support Technician, IT Security Analyst</u>	Updated: May 23, <u>2005 September 3, 2024</u>	<u>Pay Grade Assignment:</u> Executive Employees Association, <u>Pay Level 5</u>

General Summary or Purpose Of Job:

Responsible for the operation of the ISD 709 computer network infrastructure, including LAN/WAN, Internet, network servers, and ~~desktop support system security~~. This responsibility includes the design, implementation of data, and maintenance of network infrastructure voice and video systems to support curriculum and administrative requirements. Supervises network technical support and security staff ~~and field support technician staff~~, and ensures that highest quality of system reliability, support and services are provided to ISD 709 employees and students. Provides assistance to ISD 709 staff with ~~desktop computer network-related~~ problems requiring expert troubleshooting and problem analysis, ensuring quality service, with an emphasis on customer satisfaction. Provides monthly summary reports that would identify systems status, failures, deficiencies, and potential system issues. Coordinates, when necessary, direct assistance from manufacturers and vendors, including auditing and checking for accuracy vendor billing.

DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)	FRE-QUENCY
1.	<u>Designs, implements, and Maintains and oversees</u> the operations of the District's network infrastructure systems, including <u>security, data, voice, and video cabling</u> . <u>Evaluates, analyzes Troubleshoots</u> and resolves problems within the District's <u>security, data, voice, and video network infrastructure</u> systems. <u>Designs and implements reviews</u> solutions to ensure a minimum delay and maximum support to for curriculum and administration systems <u>servng students and staff using these systems for employees</u> . <u>Assesses District technology services availability and include recommendation options for redundancy and fail over</u> .	<u>Daily</u> <u>30%</u>

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| 2. | <p>Aets as a<u>Serves as the lead</u> technology<u>ical</u> expert to assist District employees and technical support staff with complex network and <u>security segmentation problems,</u>desktop computer hardware and software problems. Handles difficult and complex network <u>and desktop computer and software</u> problems, such as <u>WAN issues, slow logins, and the inability to browse the network</u> that cannot be resolved by the <u>other departmental</u> technical support staff. <u>Develops monthly summary reports that will track network reliability that are used to identify problems and prevent system failures.</u></p> | Daily
25% |
| 3. | <p>Supervises the network technical support <u>and field support technician</u> staff, <u>by:</u> <u>Providing documentation,</u> direction, training and assistance with problems encountered <u>by staff.</u> Ensures <u>that quality control of systems and services,</u> with an emphasis on customer satisfaction, is provided to District employees using the network <u>infrastructure and attached devices,</u> desktop computers. Performs performance appraisals and resolves personnel problems. Coordinates personnel actions with the <u>Director-Manager</u> of Technology prior to any action being taken.</p> | Daily
15% |
| 4. | <p>Researches and maintains knowledge of current network and <u>desktop computing</u>end-use device technologies to ensure District awareness of state of the art software and hardware. <u>Will recommend changes to the Desktop with the System Specialist/Desktop.</u> <u>Assists the Director of Technology with planning and budgeting for future acquisitions and upgrades to equipment and software.</u> Assists the Director of Technology <u>Manager</u> with the development of <u>district-wide</u>District <u>Technology</u> <u>Plan, Disaster Recovery Plan (DRP), E-Rate Telecommunication Equity Aid and technology grants/-funding.</u> <u>Will be the chairperson for the District Technology Committee and will provide report of minutes for the 3-4 meeting held during the year.</u></p> | Weekly
10% |
| 5. | <p><u>Assists in the</u> <u>r</u>Reviews, tests and determines <u>if technology systems</u> whether desktop computers and network hardware/software components meet standards for quality and network <u>compatibility.</u>compatibility. <u>Applies network modeling data and analysis to estimate data traffic growth for developing long-term network infrastructure planning strategies.</u> <u>Assists in</u> <u>recommendations</u>Selects equipment for purchase or to be placed on approved standards list for purchasing by the District.</p> | Monthly
5% |
| 6. | <p><u>Develops</u>Reviews and utilizes <u>software systems</u> to monitor, maintain, and identify potential issues in the design and reliability of the <u>computer-network</u> <u>infrastructure and attached system.</u></p> | Daily
5% |

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7.	<p>Plans and Develops budgets for future acquisitions and upgrades to equipment and software, and plans to support networks systems in most cost effective means. The TCO and ROI models will be used to support changes or purchase of new systems and equipment.</p>	<p>Daily 5%</p>
8.	<p>Develops technical specifications (<u>BID's</u>) and requests for proposals (RFP's). Reviews bids and proposals and makes recommendations for vendor selection.</p>	<p>Quarterly 5%</p>
9.	<p>Installs-Proposes and maintains District-wide classroom, network infrastructure rooms and cabling standardization for data, wireless, voice and video communications, operating system software (NOS) and hardware linking District employees and sites. This includes shared services for user file storage such as student management systems, curriculum applications, individual student accounts, and IEP's. Formulates addressing schemes and links to the network. Ensure that network infrastructure installations in rooms comply with contract specifications and cabling standards.</p>	<p>Monthly 5%</p>
10.	<p>Leads project management and assigns duties within the Network Infrastructure area for the department. Drives efficient communication, vendor product procurement, and project completion, minimizing reliance on external network infrastructure consulting.</p>	<p>Monthly 5%</p>
<u>11.</u>	<p><u>Develops and codes custom software to automate and streamline infrastructure projects, network, phone and security workflows for day-to-day operations involving equipment configuration and individual user service additions or change requests.</u></p>	
<u>12.</u>	<p>Prepare written monthly reports that will identify major systems and track status, failures and potential system issues.</p>	
<u>13.</u>	<p>Develop a professional development plan, including professional development not funded by District funds.</p>	<p>Yearly 5%</p>
<u>14.</u>	<p>Performs other related <u>District technology</u> duties, as <u>needed/required</u>.</p>	<p>Monthly 5%</p>

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Minimum Qualifications: (necessary qualifications to gain entry into the job not preferred or desirable qualifications)

~~Requires a minimum of a baccalaureate degree in computer science, technology information systems, management information systems or a closely related field and at least three years network administration experience in a large organization (1,000 employees or greater), preferably a school district; or an equivalent combination of education, training and/or experience necessary to successfully perform the essential functions of the work.~~

- ~~• Bachelor's degree (B.S. or B.A.) from a four-year College or University in Computer Science, MIS, Business Technology plus either two years of experience as a Network Engineer/Network Administrator in a company with a staffing level of 750 or larger~~
~~OR~~
- ~~• Two-year Trade/Vocational School certification/degree in Networking/Technology plus four years of experience as a Network Engineer/Network Administrator in a company comparable with a staffing level of 750 or larger~~
~~OR~~
- ~~• Six years of experience as a Network Engineer/Network Administrator in a company comparable with a staffing level of 750 or larger~~
~~AND~~
- ~~• Two years of supervisory experience.~~
- ~~• Training or experience supporting Cisco Network Infrastructure (telephony, switches, wireless, ISE, etc.) or the equivalent work experience in a Network Support position in a small to medium size company.~~
- ~~• Experience supporting Cisco Infrastructure (telephony, switches, wireless, ISE, etc.)~~
- ~~• Ability to transport oneself to worksites throughout the District in a timely manner.~~

Desirable Qualifications:

- ~~• Two or more of the following Cisco Certifications: CCNA Routing and Switching, CCNA Wireless, CCNP, CCNA Voice~~
- ~~• Two plus years supporting Cisco Telephony/VoIP, Cisco Emergency Responder/E911 and Cisco UCS Server/System~~
- ~~• Two plus years using Microsoft DHCP and two plus years supporting Microsoft DNS~~
- ~~• Previous experience operating and maintaining a Network Access Control System (such as Cisco ISE)~~
- ~~• Prior K12 work experience~~

Certification or Licensing Requirements (prior to job entry):

~~Have training in system that the District supports and maintains at the time of hiring.~~

Knowledge Requirements:

Requires knowledge of:

- ~~▪ Network operating systems, current Microsoft Systems and last version~~
- ~~▪ Comprehensive working knowledge of ~~desktop computers~~, network services and related data, voice, and video communications including LAN and WAN.~~

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- Network operations and hardware currently supported by the District.
- Training in VoIP systems support by the District.
- Understanding of networking protocols (TCP/IP, IPv6, VLANs, routing, switching)
- Proficiency with network hardware and software
- Knowledge of network security, cloud technologies, educational technology, and wireless networking
- Educational technology standards and best practices
- Budgeting and financial management

Skill Requirements:

Skilled in:

- ~~Latest Microsoft network operating systems (NOS)~~
- ~~Latest Microsoft desktop operating systems (OS)~~
- LAN and WAN hardware/software (OS), ~~including DSU/CSU, routers, hubs~~, switches, servers, and multi-layer devices.
- Network design and the core workings (cabling design and standard, OSI model, network protocols, and so forth).
- Identifying and resolving network issues, such as connectivity problems, slow performance, or security breaches.
- Skill in thinking critically and creatively to find solutions to complex network challenges.
- Excellent interpersonal skills for establishing and maintaining effective working relationships with employees, other department staff, contractors, and vendors.
- Supervisory skills, including planning and organizing, interpersonal sensitivity, problem solving, decision-making, flexibility and time management.
- Ability to effectively use a variety of tools, test equipment and diagnostic software, such as protocol analyzers, to assemble, evaluate and repair systems.
- Maintaining confidentiality regarding sensitive data files.
- Technical writing and documentation, including diagrams, procedures and policies.

Physical Requirements: Indicate according to the requirements of the essential duties/responsibilities

Employee is required to:	Never	1-33% Occasionally	34-66% Frequently	66-100% Continuously
Stand		√		
Walk		√	√	
Sit			√	√
Use hands dexterously (use fingers to handle, feel)				√
Reach with hands and arms		√		
Climb or balance		√		
Stoop/kneel/crouch or crawl		√		
Talk and hear			√	√

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Taste and smell	√			
Lift & Carry: Up to 10 lbs.		√		
Up to 25 lbs.		√		
Up to 50 lbs.		√		
Up to 100 lbs.	√	√		
More than 100 lbs.	√			

General Environmental Conditions:

Work is performed under normal office conditions and there are minimal environmental risks or disagreeable conditions associated with the work. Cabling installation and inspection work is occasionally performed in wet or humid conditions, near moving mechanical parts, in high or precarious places, where fumes, airborne particles or where toxic or caustic chemicals are present. The typical noise level is considered to be moderate. Color vision is required for network monitoring.

General Physical Conditions:

Work can be generally characterized as:

Light work mostly with monthly IT equipment installation and setup.

Heavy Work: Exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of forces constantly to move objects.

<u>Vision Requirements:</u> Check box if relevant	Yes	No
No special vision requirements	√	
Close Vision (20 in. of less)	√	
Distance Vision (20 ft. of more)		
Color Vision	√	
Depth Perception		
Peripheral Vision		

Job Classification History:

Classification reviewed and revised by Penn, Inc., Human Resource Management Consulting