JOB DESCRIPTION

Network Engineer

Reports to:	Director of Information Technology	**Employment Group / Salary Range:**	CSEA Range V
Dept:	Information Technology	**FLSA:**	Non-exempt
Annual Work Days:	261	**Formal Review Date:** **Board Approval Date:**	8/23/23 9/11/23

PRIMARY FUNCTIONS

Under general supervision, performs professional-level administration, design, installation, maintenance, and support of enterprise network infrastructure, documentation, services, and security; supports, troubleshoots, and resolves network connectivity and stability issues; performs advanced user support and training; coordinates vendors and contractor services; performs technology infrastructure documentation, maintenance, and support including hardware, software, telecommunications, network infrastructure, cyber security, and disaster recovery; performs technical and project management; and performs related duties as assigned.

ESSENTIAL DUTIES & 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.

- Performs the day-to-day maintenance, updates, and support of the District's network infrastructure systems; including but not limited to firewalls, web filters, VoIP, routers, switches, wireless access points, virtual appliances, communication platforms, and other related systems.
- Evaluates current infrastructure and researches potential products and services. Stays current on network management methodologies and techniques to improve network reliability, security, and performance.
- Plans, coordinates, manages, and maintains the District's network management and security systems and ensures they remain healthy, updated, and secure.
- Plans, manages, and maintains backups of District's network hardware configurations, communication systems, virtual appliance configurations, and related systems. Performs scheduled backup/restore processes to verify and audit data continuity and practices recovery routines.
- Plans, manages, and maintains District's network documentation: including but not limited to topology maps, LAN/WAN configurations, site plans, and detailed network configurations with detailed notes.
- Enables access and supports network connectivity for end-users at various locations inside and outside the District; recognizes and coordinates the resolution of connectivity issues with locations, end-user devices, and IoT devices; determines causes of errors or stoppages; identifies solutions and applies corrective techniques or refers issues to the vendor.

- Coordinates and provides technical support and guidance to District staff in network connectivity and security.
- Develops and implements best practices for District devices to maintain secure network connection; including but not limited to Windows computers, Apple computers, Chromebook, tablets, IoT devices, printers, security cameras, collaboration devices, and other network connected systems.
- Troubleshoots and resolves escalated user support issues; manages network identity accounts; supports and maintains network identity account information including rights, security permissions, system groups, and account synchronization across platforms.
- Performs network and system administration functions including installing, upgrading, configuring and maintaining physical and cloud infrastructure; monitors and optimizes network security, performance and capacity.
- Manages virtual infrastructure environment; creates new virtual servers and desktops; monitors device consoles and network connectivity for connected devices.
- Configures firewall equipment and security software at all District locations and ensures network connections are maintained; monitors systems resources including hardware resource utilization, storage usage, response time, and other performance issues.
- Performs data backup and recovery using specialized software tools and server configurations; reviews automated messages to ensure backup processes are completed successfully; researches and resolves error messages, disk failures and other problems; reviews regular enterprise data backup coverage and adjusts as required; maintains disaster recovery plan.
- May develop scope of work and estimates budgets for RFPs; participates in evaluating vendor solutions; coordinates and oversees the work of external contractors and vendors to ensure contract requirements, timelines and District standards are met; serves as liaison between vendors and users.
- Leads and participates in the project management and deployment of vendor projects ranging from routine to large, complex efforts that combine the delivery of software elements, new or reconfigured hardware and overall changes to department operations.
- Maintains up-to-date technical knowledge by attending educational workshops, reviewing professional publications, establishing personal networks, and participating in professional associations.
- Maintains records in the form of work plans and specifications for network infrastructure systems, hardware and devices; develops and maintains accurate and up-to-date documentation, monitoring reports, logs and files; maintains documentation and licenses for all software and hardware; maintains a library of manuals, license agreements and product warranty information.
- Performs related duties as assigned.

QUALIFICATIONS

Education and Experience:

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Graduation from an accredited four-year college or university with coursework in information technology, computer science or a related field, and at least two years of progressively responsible information technology experience; or an equivalent combination of training and experience.

Licenses, Certificates and Other Requirements:

- Cisco Certified Network Associate (CCNA) is required.
- Cisco Certified Network Professional (CCNP) in Security or CyberOps is desired.
- A valid California driver's license and the ability to maintain insurability under the District's vehicle insurance program may be required in some assignments.

KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Network Infrastructure design and network management including applications, servers, management tools, and network topology.
- Network management systems and software, including diagnostic tools, commands, and utilities.
- Effective network infrastructure troubleshooting and diagnostic techniques.
- Methods and techniques for customer service and troubleshooting to determine causes of network connectivity, software problems, and device errors and failures.
- Methods and techniques for the installation and configuration of hardware, software, and network connectivity.
- On-premises and cloud managed identity services, security groups, and permission roles.
- Basic principles, practices, and methods of systems/network administration and maintenance, including configuration, performance tuning, and use of diagnostic tools.
- Project management techniques and methodologies including planning, scheduling, measurement and reporting.
- Methods of project and time management.
- Understanding impact of system configuration changes and plan for minimal impact on users.
- District rules, regulations and requirements related to job requirements.

Skills and Abilities to:

- Assist Director of Information Technology in developing conceptual frameworks and apply state-of-the-art technology to the design and management of District network systems.
- Read, interpret, explain and apply technical information on business processes, student information systems, software and hardware for technical and non-technical users.
- Support technology team members in the use of network equipment and software.
- Install, configure, maintain, and manage current network infrastructure systems and computer operating systems.
- Analyze and troubleshoot network and related system issues and develop optimal solutions.

- Perform business and functional analyses.
- Identify data communication and information management problems and solutions.
- Understand and follow written and oral instructions.
- Operate a computer and use standard business software.
- Establish and maintain effective working relationships with all those encountered in the course of work.
- Understand and be sensitive to and respectful of the diverse academic, socioeconomic, cultural, disability, and ethnic backgrounds of students, faculty and staff.

PHYSICAL AND MENTAL DEMANDS

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

Physical Demands:

While performing the duties of this class, employees are regularly required to talk or hear, in person and by telephone; sit, walk and stand; use hands to finger, handle, feel or operate objects, tools or controls; reach with hands and arms; and perform repetitive movements of hands or wrists. The employee is frequently required to lift up to 50 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

Mental Demands:

While performing the duties of this class, employees are regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; observe and interpret situations; use math and mathematical reasoning; observe and interpret people and situations; learn and apply new information and skills; perform highly detailed work; work on multiple, concurrent tasks; work with frequent interruptions; and work under intensive deadlines.

WORKING 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 qualified individuals with disabilities to perform the essential functions.

Employees work under typical office conditions subject to frequent public contact and interruption and to intermittent exposure to individuals acting in a disagreeable fashion. The employee occasionally works outdoors exposed to weather conditions.

The employee may be required to travel to locations other than assigned work site and to adjust to work schedule changes and requirements to work overtime.

EMPLOYEE CERTIFICATION OF JOB DESCRIPTION

I hereby acknowledge I have read and understand the content of this job description. I have had the opportunity to ask questions and have those questions answered about the general duties and responsibilities of this job. I understand that the job description may be revised from time to time in the future by the Patterson Joint Unified School District Governing Board in consultation with my professional association as needed and where applicable.

I understand and agree nothing in this job description should be construed as a contract of employment. My employment with the Patterson Joint Unified School District is contingent upon execution of a signed contract approved by the board of trustees. Continued employment is subject to my adherence to board policy, state and federal laws, the collective bargaining agreement between my association and the district where applicable, and my performance evaluation.

I further acknowledge that it is my responsibility to notify my supervisor immediately in the event I may need reasonable accommodations to perform the primary functions, general duties and responsibilities, or the physical, mental and social requirements of this job.

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Employee Signature ***Date***

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Name Printed