



CAJON VALLEY UNION SCHOOL DISTRICT PERSONNEL COMMISSION

Job Class Description

INFRASTRUCTURE ENGINEER			
DEPARTMENT/SITE:	District Department or School Site	SALARY SCHEDULE:	Classified Bargaining Unit
		SALARY RANGE:	50 per 2023-2024 Schedule
		WORK YEAR:	12 Months (260 Days)
REPORTS TO:	Chief Technology Officer or assigned supervisor	FLSA:	Non-Exempt

BASIC FUNCTION:

Serves as the technical architect, engineer, designer, and system administrator for datacenter and District infrastructure operations including the design, deployment, and monitoring of infrastructure systems security; ensures the stability, integrity, and efficiency of the systems infrastructure that supports the District's information technology (IT) environment; and performs related duties as assigned. The incumbents in this classification assist in supporting students by designing, maintaining, and optimizing the District's IT infrastructure, which directly supports student learning.

ESSENTIAL FUNCTIONS, DUTIES, AND TASKS:

The following list of functions, duties, and tasks is typical for this classification. Incumbents may not perform all the listed duties and/or may be required to perform other closely related or department-specific functions, duties, and tasks from those set forth below to address business needs and changing business practices.

Plan, design, document, implement, and support a variety of complex application and infrastructure-related projects and upgrades in server hardware and storage systems, server virtualization, network services, directory services, identity management, datacenter security, disaster-recovery services, database services, and business applications.

Design and manage the District datacenter, cloud, and hosted environments, daily operation of each assigned technology, ensuring the availability of datacenter services and communications.

Serve as the primary architect and system administrator for the District internet service delivery including firewall and internet security services, wide area network connectivity between District locations, District local area networks, physical and virtual servers, and service delivery of District applications and resources.

Serve as the primary architect and assist District IT staff in the implementation of site local area networks and wireless networks.

Evaluate, test, and install appropriate software tools to monitor system alerts, events, changes, and activities that may impact performance or security; research, troubleshoot, and resolve system errors, failures, and other problems; install and test system patches, releases, upgrades, and fixes.

Identifies the impact of changes in systems and applications on datacenter operations; assesses and resolves complex systems engineering and administration issues; determines potential solutions to resolve

and prevent service interruptions; implements and follows policies and procedures for change and incident management; documents technical problems, resolutions, and processes.

Administer District firewall services, storage area network systems, Internet Protocol (IP) video and Voice Over IP (VoIP) phone and IP speaker emergency notification systems including systems integration with physical and virtual hardware resources.

Manage disaster-recovery solutions for critical District applications and core infrastructure services; monitor and maintain replication and backup systems; ensure all data is properly offloaded to physical and cloud-based locations following established procedures; restore backed up data as required.

Identifies, mitigates, troubleshoots, and resolves complex system hardware, software, and systems integration problems for the District; functions as the last line of technical escalation for complex technical issues for the IT department.

Establish technology and architecture standards in collaboration with IT management and staff to ensure cohesive, compatible, and standards-based approaches to network and systems infrastructure solutions throughout the District.

Communicate with consultants and contract vendors as required; may provide project and technical guidance defining the scope of the project including project management, project technical requirements, budget, schedules, and critical project milestones. Ensures that changes are systematically and efficiently handled to minimize disruption and maximize benefits.

Attend and participate in staff meetings and in-service activities, workshops, conferences, and classes, which increase professional knowledge of new technologies, information systems, and software.

Perform classification-related duties as assigned to ensure the efficient and effective functioning of the work unit and the District, including various mandatory District trainings.

KNOWLEDGE AND ABILITIES:**KNOWLEDGE OF:**

Principles, practices, and methods of infrastructure design, administration, and maintenance.

Datacenter technologies, including virtualization technologies, cloud platforms, storage, replication, backup, and uninterruptible power supply.

Principles and practices of data communications design.

Principles, methods, and techniques for installation, configuration, integration and operation of VoIP network systems, components, equipment, devices, and software.

Principles and concepts of establishing and documenting baseline systems performance.

Principles and practices of disaster-recovery design and planning, including audit and legal requirements, risk analysis, and recovery strategies.

Security technologies such as firewalls, intrusion detection, and intrusion prevention.

Directory services, identity management, and operating systems used by the District.

Scripting and programming languages applicable to the work.

Methods, operational characteristics, and techniques used in the installation and troubleshooting of software applications and peripheral equipment.

Workflow applications.

The roles and functions of District department operations and school sites as they impact the work.

ABILITY TO:

Plan, organize, integrate, and administer a broad range of technical infrastructure development, implementation, and maintenance activities.

Identify infrastructure management issues and opportunities, analyze problems and alternatives, and develop sound conclusions and recommendations.

Build teamwork and collaboration within the team and departments to optimize results; develop and maintain effective customer relationships with district and school site administration.

Analyze short-term and long-term business and technology needs and apply state-of-the-art technology in developing integrated, efficient, and cost-effective solutions.

Develop and write specifications, standards, and operating procedures.

Establish and maintain project schedules and balance responsibilities for multiple projects to ensure timely, high-quality results.

Write clear and precise technical procedures for systems operation and configuration, program documentation, operating instructions, and training materials.

Communicate effectively, both orally and in writing.

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.

Meet schedules, timelines, and set priorities.

Adhere to safety practices.

EDUCATION AND EXPERIENCE:

Any combination equivalent to a bachelor's degree in computer science, management or information systems, computer engineering or a closely related field, and at least five years of progressively responsible experience in the development and administration of systems and network infrastructures in an information systems environment similar in size and complexity to that of the District; Current Cisco, Aruba, CompTIA, Palo Alto, VMWare, Microsoft or Certified Information Systems Security Professional (CISSP) certifications preferred.

LICENSES AND OTHER REQUIREMENTS:

Must possess a valid California driver's license and maintain qualification for automobile insurance coverage.

Driving a vehicle to conduct work.

WORKING CONDITIONS:**ENVIRONMENT:**

The job is performed in a generally clean and healthy indoor office environment.

Working around students and staff.

Frequent interruptions.

Driving a vehicle to conduct work.

Weekend and after-hours work on an as-needed or on-call basis.

PHYSICAL DEMANDS:

Dexterity of hands and fingers to operate a computer keyboard and other office equipment.

Seeing to read and prepare a variety of materials, view a computer monitor for extended periods of time, and perform assigned activities.

Hearing and speaking to exchange information in person and on the telephone.

Sitting and/or standing for extended periods of time.

Reaching overhead, above the shoulders, and horizontally to retrieve and store files and supplies.

Bending at the waist, kneeling, or crouching to file, shelve, and/or retrieve materials.

Regularly lift and/or move up to 50 pounds and occasionally lift and/or move up to 100 pounds with the use of hand trucks or other equipment.

HAZARDS:

Traffic hazards.

Sharp objects.

CLEARANCES:

Criminal Justice Fingerprint / Background

Tuberculosis

Pre-placement Physical and Drug Screen

JOB CLASS HISTORY

New classification PC: 3/23; GB

Revised: 11/24 (EH&A / MGT Consulting) / GB 11/12/24; PC 10/24/24