



Sr. IT Infrastructure Engineer

Class Code:
4914

Bargaining Unit: Alameda County Management Employees
Association

SUPERIOR COURT OF CALIFORNIA, COUNTY OF ALAMEDA
Established Date: Aug 23, 2007
Revision Date: June 2, 2026

SALARY RANGE

SEE SALARY SCHEDULE

JOB DESCRIPTION:

JOB DEFINITION

Under direction, supports the design, operation, and improvement of the organization's physical and virtual core infrastructure by working across servers, networks, databases, email systems, telephony and cloud platforms; performing the most complex and varied technical tasks related to configuration, troubleshooting, maintenance, and monitoring.

DISTINGUISHING FEATURES

This is the advanced journey-level class responsible for performing complex technical assignments, projects, and analyses in support of organizational infrastructure. Responsibilities require discretion and independent judgment, along with expert level knowledge of the concepts, practices, procedures, and policies of assigned functions. The Senior IT Infrastructure Engineer will serve as a technical leader and subject matter expert in specific area(s) of infrastructure, with the capacity to influence technical direction across both on-premises and cloud environments. This classification is distinguished from the IT Infrastructure Engineer role by the breadth of technical expertise required, the expectation to provide advanced IT security support and ensure security best practices across infrastructure systems. Additionally, it provides direction and guidance to IT Infrastructure Engineers, and designs, architects, analyzes, and serves as technical lead for various infrastructure projects. Whereas the IT Infrastructure Engineer applies technical expertise within assigned infrastructure systems and follows established standards and procedures and assists with the analysis and implementations of infrastructure projects.

EXAMPLES OF DUTIES:

NOTE: The following are duties performed by employees in this classification; however, employees may perform other related duties at an equivalent level. Each individual in the classification does not necessarily perform all listed duties.

1. Designs, analyzes, manages, and maintains server environments, including directory services, name resolution, network services, and policy management.
2. Provides advanced network support and troubleshooting for complex routing, switching, virtual networks, firewall configurations, and network security implementations.
3. Serves as technical leader for database system administration, including complex installations, configuration, performance optimization, disaster recovery, and high-availability solutions.
4. Architects and administers cloud resources such as virtual machines, storage, networking, identity, and security tools.
5. Designs, manages, and supports email server environments, including mail flow architecture, connectivity, security, and resolution of complex issues.
6. Architects and administers voice communication systems and unified communications platforms.
7. Maintains documentation for systems, standards, and procedures following established guidelines.
8. Assists with incident response efforts and perform root cause analysis on technical issues.
9. Designs and implements backup strategies, disaster recovery planning, and business continuity tasks.
10. Provides technical assistance and guidance to other IT staff and organizational users in areas of responsibility, and communicates with stakeholders, including vendors and suppliers.
11. Serves as technical lead for assigned projects, providing direction to project teams and ensuring successful delivery of infrastructure initiatives.
12. Evaluates and recommends new technologies, tools, and methodologies to improve infrastructure operations and efficiency.
13. Performs other related duties as assigned.

MINIMUM QUALIFICATIONS:

Option I

Experience:

The equivalent to two years of full-time experience in the class of IT Infrastructure Engineer in the Superior Court of California, County of Alameda classified service performing similar duties.

Or Option II

Education:

Possession of a Bachelor's degree in information technology, computer science, or a related field from an accredited college or university.

Additional experience in supporting infrastructure technologies may substitute for education on a year-to-year basis.

And

Experience:

The equivalent to four years of experience supporting infrastructure technologies, which may include various compute platforms, networking, virtualization, cloud, email, and telephony services.

KNOWLEDGE AND ABILITIES:

Knowledge of various infrastructure technologies and platforms, which may include server environments, directory services, name resolution, and policy management systems; cloud platforms including compute, storage, networking, identity, security, and hybrid cloud integration; network architecture including routing, switching, virtual networks, VPNs, and firewall design; virtualization platforms including clustering and infrastructure design; database administration including high-availability solutions, disaster recovery, and performance optimization; email server architecture, mail flow design, and troubleshooting; telephony systems and unified communications platforms; scripting and automation for infrastructure management; physical and virtual server hardware and storage systems architecture; and principles of high availability, redundancy, disaster recovery, and business continuity planning.

Ability to diagnose and resolve technical issues across servers, networks, storage, and cloud platforms, including problems without precedent or established procedures; analyze and solve unique infrastructure challenges requiring independent judgment and creative solutions; serve as a technical leader and subject matter expert, providing guidance and mentorship to other IT staff and organizational users in areas of responsibility; influence technical direction, make architectural decisions that impact organizational infrastructure, and establish technical standards; communicate skills to provide training, recommendations, develop comprehensive documentation, and deliver technical leadership to diverse audiences; lead projects of significant complexity, establish and maintain highly effective, customer-focused working relationships with stakeholders, and exercise discretion when developing resolutions to critical infrastructure.

CLASSIFICATION HISTORY:

Date established: 8/23/07

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