

**POSITION DUTY STATEMENT**

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Information Technology Specialist II	OFFICE/BRANCH/SECTION Infrastructure Management Division/System Engineering	
WORKING TITLE Senior System Engineer	POSITION NUMBER 900-170-1414-924	REVISION DATE 03/25/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

**GENERAL STATEMENT:**

Under general direction of the IT Manager I, Server Infrastructure and Identity Management Office Chief, the IT Specialist II serves as a Senior System Engineer in the System Engineering Domain and is responsible to plan, architect, design, implement, and maintain Caltrans IT enterprise architecture. The incumbent will provide expertise and leadership for the Server Infrastructure, Identity Access Management Section of the Infrastructure Management Division and performs at a technical level and provides technical expertise to management for the Infrastructure Management Division and supporting Caltrans enterprise infrastructure. The incumbent is based in the Sacramento Headquarters office and provides statewide support and leadership for Caltrans business operations.

**MAJOR FUNCTIONS:**

The incumbent works collaboratively with management and staff to provide technical leadership and expertise to drive the Department's use of Server Infrastructure technology toward constant improvements. The incumbent role and responsibilities include, but are not limited to, architect, design, implements and maintains system architecture across multiple enterprise platforms and technologies for the Caltrans enterprise systems. The incumbent provides the highest level of technical knowledge in enterprise architecture and infrastructure services, not limited to server, network, storage, virtualization, automation, scripting, cloud technology, and network access control (NAC). The incumbent performs highly complex activities of the System Development Lifecycle which includes systems: analysis, design, build, test, maintenance, and operations. Additionally, the incumbent provides lead support for all phases of server life cycle management including procurement, deployment, installation, configuration, maintenance, and operations, and surplus. The incumbent will lead and provide technical advice for complex and mission critical server infrastructure projects. The incumbent provides leadership, guidance, training, and support in the configuration and use of server infrastructure technologies. The incumbent collaborates with peers and management to update and recommend standards, processes and procedures, and technology practices. The incumbent tracks, monitors, and audits IT assets to maintain accountability using standard asset management tools and techniques in compliance with the State Administrative Manual and other applicable policies and regulations. The incumbent also performs functions including, but are not limited to, researching, writing, reporting, presenting, etc.

**DOMAINS:**

System Engineering  
Client Services

**CORE COMPETENCIES:**

As an Information Technology Specialist II, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Learning on the Fly:** Learns quickly, is open to change, experiments, and is flexible. (Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity, Pride)
- **Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity, Pride)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)

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- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity, Pride)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity, Pride)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity, Pride)

**TYPICAL DUTIES:**

Percentage		Job Description
Essential (E)/Marginal (M) <sup>1</sup>		
35%	E	<b>Systems Analysis</b> The incumbent, acting independently or as a lead of a team, provides leadership and expertise in to IT professional teams and/or projects; organizes, plans, documents and analyzes business and technical requirements; develops System Requirements Specifications; analyzes, troubleshoots, resolves and reports systems anomalies; performs research, evaluates products and makes recommendation for adoption; produces specifications and build of materials for purchase requisitions.
35%	E	<b>Systems Design and Build</b> The incumbent provides expertise in systems design activities associated with solution architecture and infrastructure for business and technical problems, performs system modeling and prototyping to provide effective design solutions, develops System Design Specifications to meet business and technical requirements. The incumbent will also provides technical leadership and training for IT professionals in installing, configuring and tuning systems/applications in various compute environments including development, test, staging and production; developing, maintaining and following established technology practices, processes and procedures for configuration management, change management and release management.
15%	E	<b>Systems Test</b> The incumbent provides technical leadership for IT professionals in organizing, planning and developing test use cases and System Test Specifications; collaborating with stakeholders on systems test activities including planning, testing, reporting and correcting problems found during the test phase of the system development life cycle; developing, maintaining and following established technology practices, processes and procedures for unit testing, integration testing, performance testing, etc.
10%	E	<b>Systems Maintenance and Operations</b> The incumbent provides technical leadership and training for IT professionals in performing health checks on systems, monitoring systems for proper operations; performing systems upgrade, managing and remediating security vulnerabilities and threats; troubleshooting and resolving very complex system anomalies; developing, maintaining and following established technology practices, processes and procedures for incident management, Monthly Scheduled Maintenance; developing and maintaining Systems Maintenance Manuals.
5%	M	The incumbent will perform other duties in the specified domain(s) as needed.

<sup>1</sup>ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

The incumbent has no direct supervisory responsibilities. However, this position may require the incumbent to lead teams to achieve common goals and objectives.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of: Emerging technologies and their applications to business processes; business or systems process analysis,

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design, testing, and implementation techniques; techniques for assessing skills and education needs to support training, planning and development; business continuity and technology recovery principles and processes; principles and practices related to the design and implementation of information technology systems; information technology systems and data auditing; the department's security and risk management policies, requirements, and acceptable level of risk; application and implementation of information systems to meet organizational requirements; project management lifecycle including the State of California project management standards, methodologies, tools, and processes; software quality assurance and quality control principles, methods, tools, and techniques; research and information technology best practice methods and processes to identify current and emerging trends in technology and risk management processes; and state and federal privacy laws, policies, and standards.

Ability to: Recognize and apply technology trends and industry best practices; assess training needs related to the application of technology; interpret audit findings and results; implement information assurance principles and organizational requirements to protect confidentiality, integrity, availability, authenticity, and non-repudiation of information and data; apply principles and methods for planning or managing the implementation, update, or integration of information systems components; apply the principles, methods, techniques, and tools for developing scheduling, coordinating, and managing projects and resources, including integration, scope, time, cost, quality, human resources, communications, and risk and procurement management; monitor and evaluate the effectiveness of the applied change management activities; keep informed on technology trends and industry best practices and recommend appropriate solutions; foster a team environment through leadership and conflict management; effectively negotiate with project stakeholders, suppliers, or sponsors to achieve project objectives; and analyze the effectiveness of the backup and recovery of data, programs, and services.

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**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

The incumbent must exercise good judgment, analyze problems, and take appropriate action. Poor decisions or recommendations could result in significant losses of departmental efficiencies through unnecessary delays, loss of data, equipment damage, loss of employee productivity, and user dissatisfaction.

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**PUBLIC AND INTERNAL CONTACTS**

The incumbent will have frequent contact with managers and staff in Caltrans, private consultants, and vendor representatives concerning the needs and development of IT systems. While performing research, the incumbent may initiate contacts with other departments, governmental agencies, or private companies.

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**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

The employee may be required to sit for prolonged periods of time using a keyboard, monitor, mouse, and telephone. Employee must adjust rapidly to new situations warranting attention and resolution; be open to change and new information; adapt behavior and work methods in response to new information, changing conditions, or unexpected obstacles; consider and respond appropriately to the needs, feelings, and capabilities of others; be tactful and treat others with respect. In addition, the employee must have the ability to multi-task, adapt quickly to changing priorities, and perform completed staff work or tasks and projects with short notice. The incumbent must be able to lift computer equipment that weighs up to 50 pounds. Additional physical requirements include moving various large pieces and boxes of computer hardware, carrying, pushing, pulling, bending, squatting, stooping, and kneeling.

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**WORK ENVIRONMENT**

The incumbent will perform work indoors in a climate-controlled environment under artificial lighting. The incumbent may be required to work for extended periods of time in a computer room that maintains an approximate temperature of 70 degrees. Travel may be required on occasion to support other Caltrans offices. If the incumbent has a Class C driver's license and uses their personal vehicle they may be reimbursed for travel expenses. When available, a State vehicle will be provided. Possession of a valid driver's license is required when operating a state owned or leased vehicle.

Some weekend or after hours work may be required.

This position may be eligible for telework. The amount of telework is at the discretion of the Department and based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

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EMPLOYEE (Print)

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EMPLOYEE (Signature)

DATE

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I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

DATE