

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Information Technology Specialist II	OFFICE/BRANCH/SECTION D20/IT Infrastructure Div/DBA/Middleware team	
WORKING TITLE Lead GIS Enterprise Administrator	POSITION NUMBER 913-155-1414-913	REVISION DATE 05/04/2026

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under general direction of an IT Manager I, the incumbent serves as a Lead/Senior GIS Enterprise Administrator ensuring smooth and efficient operation of GIS-Middleware systems within the Database and Middleware Management Section of the Infrastructure Management Division.

MAJOR FUNCTIONS:

The incumbent provides leadership in designing and architecting Enterprise GIS solutions that meet the organization's requirements, involving analyzing business needs, evaluating technology options, and designing scalable and high-performance GIS/ middleware architectures. The Incumbent also provides leadership in all aspects of Enterprise GIS like System administration, GIS database design and administration, expert in ESRI products set up, installation, configuration and maintenance. The incumbent shall display expertise, leadership and comprehensive knowledge of GIS Administration practices and lead a team that is responsible for the successful operation of this GIS Infrastructure which consists of ESRI and ArcGIS Servers. Incumbent will be leading responsibility for administering deployments of ESRI technology, ArcGIS Enterprise, ArcGIS Portal, Enterprise Geodatabase (ArcSDE), ArcGIS Pro/Desktop, and provides expertise in solving service-related issues that may involve hardware and software problems. The incumbent will have thorough knowledge of overlying technologies which includes but not limited to; ESRI ArcGIS, ArcGIS Portal, GIS web services, Enterprise Geodatabase (ArcSDE), and ArcGIS Pro/Desktop. The incumbent will plan, organize, coordinate, and participate in the development and implementation of the organization's geographic information system (GIS) to meet the organization's mapping and end-user service objectives.

This includes but is not limited to implement continuous integration, deployment pipelines, automate manual effort, implementing security measures, access controls, encryption, database support and secure communication protocols ensuring compliance with industry standards and regulations. The incumbent performs highly complex activities of the System Development Life-cycle which includes systems: analysis, design, build, test, maintenance and operations. Additionally, the incumbent provides lead support for all phases of end user device life cycle management including procurement, deployment, installation, configuration, maintenance, and operations, and surplus. The incumbent provides training to staff in the configuration and use of GIS and middleware 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.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Prosperity, Employee Excellence - Innovation, Integrity)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Prosperity, Employee Excellence - Innovation)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Prosperity, Employee Excellence - Collaboration, Equity, Innovation)
- **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. (Prosperity - Collaboration, Innovation, Integrity, People First)

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- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Employee Excellence - Collaboration, Innovation, Integrity)
- **Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Prosperity, Employee Excellence - Collaboration, Innovation, Integrity)
- **Interpersonal Effectiveness :** Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Equity, Prosperity - Collaboration, Integrity, People First)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Equity, Employee Excellence - Collaboration, Integrity, People First)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Prosperity - Innovation, Stewardship)

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M) ¹	Job Description
20%	E	<p>Systems Analysis</p> <p>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.</p>
20%	E	<p>Systems Maintenance and Operations</p> <p>The incumbent, acting independently or as a lead of a team, provides technical leadership and training for IT professionals in performing health checks on systems, monitoring systems for proper operations; performing systems upgrade, managing and re-mediating 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.</p>
20%	E	<p>Systems Design</p> <p>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.</p>
20%	E	<p>Systems Build</p> <p>The incumbent 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.</p>
15%	E	<p>Systems Test</p> <p>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.</p>
5%	M	The incumbent will perform other duties in the specified domain(5% M s) as needed.

¹ESSENTIAL 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.

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SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

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

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of: Information technology governance principles and guidelines to support decision making; complex and mission critical business processes and systems; principles, methods and procedures for designing, developing, optimizing, and integrating systems in accordance with best practices; system specifications design, documentation, and implementation methodologies and techniques.

Ability to: Formulate and recommend policies and procedures; perform effectively in a fast-paced environment with constantly changing priorities; establish and maintain project priorities; apply federal, state, department, and organizational policies and procedures to state information technology operations; apply systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems; positively influence others to achieve results that are in the best interests of the organization; consider the business implications of the technology to the current and future business environment; communicate change impacts and change activities through various methods; conduct end-user training; collaborate closely with technical subject matter experts such as database administrators, network engineers, and server administrators to ensure systems are secure and meet compliance requirements; assess situation to determine the importance, urgency, and risks to the project and the organization; make decisions which are timely and in the best interests of the organization; provide quality and timely ad hoc project information to executives, project team members, and stakeholders; develop decision making documents; and assess and understand complex business processes and customer requirements to ensure new technologies, architectures, and security products will meet their needs.

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.

PUBLIC AND INTERNAL CONTACTS

The incumbent will have frequent contacts with managers and staff in Caltrans, IT managers throughout the state, private consultants, and vendor representatives concerning the needs and development of IT systems. The incumbent may initiate contacts with other departments, governmental agencies, or private companies concerning IT technology related to the performance of this position.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for long periods of time using a keyboard, video display terminal and telephone and may be required to lift and move supplies and equipment from one location to another. The incumbent must be able to walk between multiple State buildings and have a thorough knowledge of Caltrans building locations. This is a fast-paced job with a lot of deadlines. Thus, the incumbent in this position will be required to multi-task, be open to change, adapt to changes in priorities and policies, and to complete tasks or projects with short notice. The incumbent must be able to sustain mental activity needed for problem solving which includes reading, writing, analyzing, understanding, interpreting, consulting, developing alternatives, drawing sound conclusions, and recommending, implementing and evaluating solutions. The incumbent must be able to exercise sufficient control over emotions to gain and maintain the confidence and respect of others, recognizing and acknowledging emotionally charged issues or problems and responding appropriately to them.

WORK ENVIRONMENT

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.

If not working remotely, the employee will work in a climate-controlled office under artificial lighting using a personal computer. The employee may be required to work for extended periods of time in a computer room that maintains an approximate temperature of 70 degrees.

The employee may be required to travel. When available, a State vehicle will be provided. Possession of a valid driver's license is

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required when operating a State owned or leased vehicle. If the employee utilizes their own personal vehicle, they may be reimbursed for travel expenses. Some weekend or after-hours may be required. The employee must carry a cell phone and respond to calls after hours.

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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

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

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE
