

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

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| CLASSIFICATION TITLE Information Technology Specialist II | OFFICE/BRANCH/SECTION IMD/Enterprise Data Warehouse & Business Intelligence | |
| WORKING TITLE Senior Data Warehouse Specialist | POSITION NUMBER 900-170-1414-xxx | REVISION DATE 06/20/2024 |

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 the general direction of the Information Technology Manager I, the incumbent serves as a Senior Data Warehouse Specialist providing expertise and technical leadership for the Enterprise Data Warehouse (EDW)/Department-wide Business Intelligence (DBI) Office in the Infrastructure Management Division.

MAJOR FUNCTIONS:

The incumbent provides technical leadership and expertise for the administrative and technical design and support for the EDW/DBI program. The incumbent's primary focus is on the standards, processes, procedures for the analysis, design, implementation, maintenance and operations of data warehousing. This includes data modeling and data Extract Transform and Load (ETL) from online transactional processing (OLTP) to EDW. The incumbent's secondary focus is business intelligence, data analysis and reporting. The incumbent performs highly complex activities of the System Development Life-cycle, which includes systems: analysis, design, build, test, maintenance and operations. The incumbent provides training to staff in the configuration and use of data warehouse and business intelligence technologies. The incumbent also performs functions including, but are not limited to, researching, writing, reporting, presenting, etc.

Domains:

System Engineering
Software Engineering

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. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)
- **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)
- **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. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)
- **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)
- **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, 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. (Strengthen Stewardship and Drive Efficiency - Engagement, 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. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)

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- **Thoroughness:** Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Integrity)

TYPICAL DUTIES:

| Percentage | | Job Description |
|---|---|---|
| Essential (E)/Marginal (M) ¹ | | |
| 20% | E | <p>Systems Analysis</p> <p>The incumbent, acting independently or as a lead of a team, provides leadership and technical expertise to IT professional teams, stakeholders, and/or projects related but not limited to the EDW, data lakes, data marts and the DBI program; organizes, plans, documents and analyzes business and technical requirements for the EDW/DBI program; develops System Requirements Specifications and/or System Design Specifications; analyzes, troubleshoots, resolves and reports systems anomalies; performs research, evaluates products and makes recommendation for adoption; produces specifications and bill of materials for purchase requisitions.</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. The incumbent performs data modeling and data ETL from OLTP to EDW.</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> |
| 20% | E | <p>Systems Maintenance and Operations</p> <p>The incumbent formulates, evaluates, implements, and assists in the maintaining and operating of the Caltrans EDW, data lakes, data marts, data analytical tools and reporting for business intelligence. Participates in and contributes to the establishment and maintenance of technology practices that govern the standards, processes and procedures for the analysis, design, implementation, maintenance and operation of the EDW/DBI program. Develops and administers plans, processes, procedures, and standards. Participates in planning and implementation efforts to provide training for the EDW/DBI program, IT projects and other work efforts to achieve desired objectives on scope, on time and on budget. Provide expertise and assistance for EDW/DBI program incidents on a 24-hour availability basis. 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> |
| 15% | E | <p>Systems Test</p> <p>The incumbent provides technical leadership for IT professionals and program stakeholders in organizing, planning and developing test use cases and System Test Specifications; collaborating with stakeholders on program test activities including planning, testing, reporting and correcting problems found during the testing phase of the system development life cycle; developing, maintaining and following established technology practices, processes and procedures for program testing, integration testing, and performance testing. Represents the Data Warehouse & Business Intelligence Office Chief in internal and external meetings.</p> |
| 5% | M | The incumbent will perform other related duties in the referenced domain(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.

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.

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KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

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

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for extensive knowledge of IT policy, standards, processes and procedures, and working with customers and IT colleagues to identify business problems, opportunities and solutions to advance business programs. The incumbent must exercise good judgment, analyze problems, and take appropriate action. Bad judgment and/or decisions will have a negative impact on the Department's ability to process critical decision-support information and therefore the ability to deliver its transportation mission.

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.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for prolonged periods of time using a keyboard, monitor, mouse, and telephone. The incumbent must value cultural diversity and other individual differences in the workforce; 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 incumbent 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.

WORK ENVIRONMENT

The incumbent performs work indoors in a climate-controlled environment under artificial lighting or telework. The incumbent may be required to work for extended periods of time in a computer room that maintains an approximate temperature of 70 degrees. The incumbent may work after regular business hours and/or weekends to perform activities to support business operations and/or systems maintenance.

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.

The incumbent must carry a cell phone and respond to calls after hours to lead multi-disciplinary IT professionals team(s) in

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organizing, analyzing, troubleshooting and resolving IT system problems; may travel to various Caltrans locations to provide expertise for IT operations. If the incumbent has a Class C driver's license and utilizes 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.

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.)

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