

Duty Statement

Department of Managed Health Care

PROPOSED

CLASSIFICATION: Information Technology Specialist II	POSITION: 409-541-1414-007	
WORKING TITLE: Database Architect	OFFICE: Office of Technology and Innovation	EFFECTIVE DATE: DATE APPROVED: 8/11/2021

DEPARTMENT OBJECTIVE:

The mission of the California Department of Managed Health Care (DMHC) is to protect consumers' health care rights and ensure a stable health care delivery system. The DMHC accomplishes its mission by ensuring the health care system works for consumers. The Department protects the health care rights of more than 27.7 million Californians by regulating health care service plans, assisting consumers through a consumer Help Center, educating consumers on their rights and responsibilities, and preserving the financial stability of the managed health care system.

PROGRAM OBJECTIVE:

The Office of Technology and Innovation (OTI) enables the DMHC to deliver essential services to the State of California through the use of information technology (IT). The systems OTI supports have become a valuable tool in the execution of DMHC's business functions. OTI develops, maintains and supports multiple IT systems that include a vast variety of office automation tools, custom applications, public and internal web sites, business intelligence tools and the underlying IT infrastructure.

GENERAL DESCRIPTION:

Under general direction of the OTI Business Intelligence (BI) Division Chief, the incumbent is responsible for developing and establishing data and information architecture to build a data pipeline that will deliver accurate, high-quality data to DMHC functional offices and programs.

The incumbent is a part of a BI team responsible for enterprise data solutions. This includes planning, organizing, controlling, and managing BI initiatives and solutions for the DMHC. The Database Architect is responsible for translating requirements for inclusion into the enterprise data architecture and managing/executing the implementation of these requirements during design, development, testing, and deployment stages, including management of architecture and design artifacts to provide an overall technical vision. The Database Architect is primarily responsible for architecture and maintenance of the DMHC data warehouse environment and analytics platform including technologies and capabilities such as geo coding for spatial analysis within an ArcGIS enterprise platform and ingestion and integration within a MarkLogic No Structured Query Language (SQL) Data Platform, Microsoft SQL Server Reporting Services, SQL Server Integration Services, SQL Server Analysis Services and Tableau Server architectures.

IT DOMAINS

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|--|---|
| <input type="checkbox"/> Business Technology Management | <input checked="" type="checkbox"/> IT Project Management |
| <input type="checkbox"/> Client Services | <input type="checkbox"/> Information Security Engineering |
| <input checked="" type="checkbox"/> Software Engineering | <input checked="" type="checkbox"/> Systems Engineering |

TYPICAL DUTIES:

Employee must be able to perform the following duties with or without reasonable accommodation.

<u>PERCENTAGE</u>	<u>JOB DESCRIPTION</u>
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Essential (E)/Marginal (M)

50% (E)

Data and Information Architecture

Develop data and information architecture, strategies, standards, plans and policies. Architect, design, develop and maintain enterprise analytic data structures including, but not limited to, data warehouse, marts, and lakes to enable enterprise reporting and/or enterprise analytics. Maintain research and awareness of new technologies and advise of their potential application. Plan, prepare, develop, and maintain data models, database design, Extract, Transform and Load jobs. Leverage application programming interfaces (APIs) to support ingress and egress of data. Inventory data assets, perform gap analysis, develop data flow diagrams, and understand business needs for developing BI solutions. Consult with business and technical personnel. Review project deliverables to assist in the analysis, design, and development of solutions. Participate in meetings, and documentations, provide status reports and complete work assignments in an effective, accurate and timely manner. Support mission critical production data systems as required, carry a high degree of responsibility to maintain system uptime, secure highly sensitive data, and work under pressure to meet work demands. Provide high-level technical expertise, leadership, communication and mentoring support to the BI team members, technical staff and cross functional teams in data and information architecture design, development, and implementation.

35% (E)

Data Analytics development and Server Administration

Work independently on data analytics and report development lifecycle and system administration for existing and new applications at all stages and environments including SQL Server, Tableau, MarkLogic and ArcGIS. Perform complex system analysis and design for new development and/or modifications to existing applications and systems in compliance with Department policies, guidelines, and standards. Gather and develop business requirements, system and program specifications, use/test cases and reports. Be familiar with programming code for systems and/or modules using various programming languages, such as MS .Net and .Net Core, Microsoft Visual Studio.NET, Java, Java 2 Enterprise Edition, Java Script, Extensible Markup Language (XML), Python, web services and data APIs.

Conduct unit, integration, system, and stress tests. Code deployment in all environments. Develop and revise various documents including, but not limited to, migration plans, task checklists, installation and configuration procedures, disaster recovery plans and software evaluation reports. Act as a backup Database Administrator; coordinate and plan backup and recovery of data and reporting repositories, databases with Infrastructure Service Division; participate in Technology Recovery Plan planning, testing, and execution.

10% (E)

Master Data Management & Data Governance

Work closely with BI Division Chief to set technical direction for the overall master data management solution architecture, define component architectures, review detailed designs for accuracy and overall compliance to defined architecture across the complete data lifecycle. Support object identification and manage data elements, specify policies and business rules for master data creation and maintenance, description of hierarchies, taxonomies, or other relationships important to organizing or classifying objects, and assign data stewardship responsibility to appropriate individuals and organizations within DMHC offices and programs. Identify areas for data quality improvements and assist in resolving data quality problems through the appropriate choice of error detection and correction, process control, improvement, or design strategies. Act as a data literacy champion utilizing key performance indicators and data dictionary and educate peers and stakeholders. Conduct analytics workgroups, workshops, and meetings to grow the use and adoption of data analytics platform and help DMHC become a more insight driven enterprise.

5% (M)

Participate as needed in stakeholder meetings, strategic planning sessions, meetings, security incident responses, California Health and Human Services Agency committees, sub-committees, workgroups, and other activities. Perform special assignments and other related duties as required.

SUPERVISION EXERCISED OVER OTHERS:

Does not supervise others.

KNOWLEDGE, ABILITIES AND ANALYTICAL/SUPERVISORY REQUIREMENTS:

The employee must:

- Be familiar with DMHC mission, goals, organizational structure, and major work programs;
- Demonstrate positive attitude and a commitment to conduct business in a professional manner in dealing with the public and Department clients;
- Provide quality customer service to all customers and be able to deal tactfully, professionally, and confidentially with all internal and external customers and contacts;

In addition, the employee must have:

Knowledge of: Information technology concepts, practices, and principles to provide a foundation for technology related work; principles, techniques, and procedures related to the delivery of information technology services; the System Development Lifecycle including the associated methodologies, tools, and processes; the organization's business processes and procedures; education tools and techniques; performance monitoring tools and techniques; and data administration techniques and best practices; 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; emerging technologies and their applications to business 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 data auditing and IT systems design, implementation and application; the Department's security and risk management policies, requirements and acceptable level of risk; project management lifecycle including the State of California project management standards, methodologies, tools, and processes; software quality assurance and control principles, methods, tools, and techniques; best practice methods and processes to identify current and emerging trends in IT and risk management; and state and federal privacy laws, policies, and standards.

Ability to: Perform research and data gathering; analyze information and evaluate results to choose the best solution and solve problems; communicate effectively verbally and in writing as appropriate for the needs of the audience; utilize reporting tools to develop and analyze statistical reports; interpret and explain technical information to non-technical individuals; interpret customer requests to meet service needs and resolve problems; provide customer service; work cooperatively with staff at all levels; proficiently use computers and productivity software; and understand and align technology proposals with business needs; use initiative; act independently with flexibility and tact; use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems; perform technical analysis of proposed technology solutions; comprehend technical documents to interpret specifications, system implementations, capabilities, interdependencies, and compatibilities; serve as a technical liaison; develop and effectively utilize all available resources; develop end-user training materials; and gather data to perform statistical analysis and report outcomes; 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; 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; develop 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 and sponsors to achieve project objectives; and analyze the effectiveness of the backup and recovery of data, programs and services.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS:

The employee may have access to very sensitive and confidential information. Careless, accidental, or intentional disclosure of information to unauthorized persons can have far-reaching effects, which may result in civil or criminal action against those involved.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS:

Employee must have the ability to:

- Sit for long periods of time using a keyboard and video display terminal or travel in a vehicle to other locations;
- Organize and prioritize their work under deadline situations and adapt behavior and work methods in response to new information, changing conditions or unexpected obstacles;
- Maintain sustained mental activity needed for analysis, reasoning, and problem solving;
- Develop and maintain cooperative working relationships, recognize emotionally charged issues, problems or difficult situations and respond appropriately, tactfully and professionally;
- Work independently;
- Create/proactively support a work environment that encourages creative thinking and innovation;
- Understand the importance of good customer service and be willing to develop productive partnerships with managers, supervisors, other employees and as required, control agencies and other departments.

WORK ENVIRONMENT:

The employee will work in a climate-controlled office under artificial lighting. There will be occasional fluctuations in temperature. The employee will work in a cubicle and will periodically attend meetings and/or training outside of his/her assigned office. The employee will work in and/or visit offices located in a high-rise building accessed through elevators.

POSITION REQUIREMENTS:

This position requires the incumbent maintain consistent and regular attendance; communicate effectively both orally and in writing with the public and/or other employees; develop and maintain knowledge and skill related to specific tasks, methodologies, materials, tools, and equipment; complete assignments in a timely and efficient manner; and adhere to departmental policies and procedures regarding attendance, leave and conduct.

ADDITIONAL REQUIREMENTS:

This position is required under the DMHC's Conflict of Interest Code to complete and file a Form 700 within 30 days of appointment and annually thereafter.

SIGNATURES:

The statements contained in this duty statement reflect details as necessary to describe the principal functions of this job. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absence of relief, to equalize peak work periods or otherwise to balance the workload.

Employee: I have read and understand the duties listed above and can perform them with/without reasonable accommodation. *(If you believe you may require reasonable accommodation, please discuss this with the hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor, who will discuss your questions and/or concerns with the Reasonable Accommodation Coordinator.)*

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

EMPLOYEE NAME (PRINT)		SUPERVISOR NAME (PRINT)	
Employee's Signature	Date	Supervisor's Signature	Date