

Per California Code of Regulations, title 2, section 548.5, the following information will be posted to CalHR's Career Executive Assignment Action Proposals website for 30 calendar days when departments propose new CEA concepts or major revisions to existing CEA concepts. Presence of the department-submitted CEA Action Proposal information on CalHR's website does not indicate CalHR support for the proposal.

A. GENERAL INFORMATION

1. Date

2026-03-09

2. Department

Office of Data and Innovation

3. Organizational Placement (Division/Branch/Office Name)

CalData

4. CEA Position Title

Principal Data Architect

5. Summary of proposed position description and how it relates to the program's mission or purpose. (2-3 sentences)

The Principal Data Architect serves as ODI's primary technical authority, defining and operationalizing the technical governance frameworks, architectural standards, and engineering policies for its data engineering programs. This executive role is essential to the Office of Data & Innovation's mission, as it provides the foundational, consistent data infrastructure and practices that enable the State of California to use data effectively and deliver better government services to its residents.

6. Reports to: (Class Title/Level)

Deputy Director, Data Operations Strategy

7. Relationship with Department Director (Select one)

- Member of department's Executive Management Team, and has frequent contact with director on a wide range of department-wide issues.
- Not a member of department's Executive Management Team but has frequent contact with the Executive Management Team on policy issues.

(Explain): This person will report to the Deputy Director, Data Operations Strategy (Exempt)

8. Organizational Level (Select one)

- 1st
- 2nd
- 3rd
- 4th
- 5th (mega departments only - 17,001+ allocated positions)

B. SUMMARY OF REQUEST

9. What are the duties and responsibilities of the CEA position? Be specific and provide examples.

Serve as the Office of Data & Innovation's (ODI) primary technical authority for data engineering platforms and services, exercising independent judgment in defining and enforcing architectural standards, engineering patterns, and implementation guidance within delegated authority.

Formulate, authorize, and operationalize ODI engineering governance policies to ensure engineering workstreams comply with approved technical standards, security requirements, and program objectives established by executive leadership.

Establish and maintain technical execution frameworks that ensure engineering delivery remains within ODI's strategic objectives and within statewide standards and policy direction approved by the Chief Data Officer.

Establish and enforce technical quality control, security, and compliance protocols for ODI-managed engineering engagements, in coordination with analytics and policy teams as appropriate, ensuring adherence to applicable data protection, privacy, and security requirements.

Serve as ODI's technical subject matter expert in executive-level forums and technical communities of practice, representing authorized technical positions consistent with established policy and standards.

Make final architectural recommendations for ODI-managed platforms and services, including evaluating technical feasibility, assessing architectural risks, and approving engineering approaches for complex initiatives.

Exercise technical oversight and quality governance for data engineering platforms and infrastructure that support analytics and evaluation, ensuring adherence to authorized architectural patterns, documentation standards, and peer-review protocols.

Lead engineering process optimization and technical risk mitigation efforts to resolve architectural bottlenecks and ensure long-term maintainability and scalability of ODI systems.

Conduct high-level architectural reviews, technical assessments, and vulnerability analyses of ODI-managed systems and provide authoritative technical intervention when required to protect system integrity and reliability.

Direct technical prioritization of ODI engineering workstreams based on architectural impact, system complexity, and alignment with approved objectives, without establishing statewide policy or strategic priorities.

Architect and institutionalize shared technical integration patterns and implementation guidance to enable consistent engineering coordination across ODI programs and services.

Direct the technical enablement and implementation of ODI-led cross-departmental and statewide engagements, ensuring partner departments adopt authorized engineering standards and implementation patterns, without assuming ownership of client project management or analytics delivery.

Develop and maintain the ODI engineering roadmap, ensuring the technical evolution of platforms and services aligns with approved statewide standards, modern engineering practices, and executive direction.

Provide expert technical consultation and advisory support to executive leadership on architectural risks, engineering trade-offs, and the technical implications of proposed scope, sequencing, or resourcing changes.

Advance ODI's mission by translating executive strategy and statewide data policy into actionable, technically sound engineering standards and practices that enable the responsible, effective, and sustainable use of data.

Direct the technical professional development of ODI's multidisciplinary engineering workforce, including establishing competency frameworks, training roadmaps, and mentoring structures aligned with current and emerging technical needs.

Institutionalize engineering peer-review practices, documentation standards, and knowledge-sharing mechanisms to strengthen collective technical capability and reduce reliance on individual expertise.

Oversee the technical integrity of engineering-focused training curricula, technical toolkits, and implementation resources developed or sponsored by ODI for departmental and cross-departmental use.

B. SUMMARY OF REQUEST (continued)

10. How critical is the program's mission or purpose to the department's mission as a whole? Include a description of the degree to which the program is critical to the department's mission.

- Program is directly related to department's primary mission and is critical to achieving the department's goals.
- Program is indirectly related to department's primary mission.
- Program plays a supporting role in achieving department's mission (i.e., budget, personnel, other admin functions).

Description: Per California Government Code section 12815, the mission of the Office of Data & Innovation (ODI) is to deliver better government services to the people of California through technology, data, and design. ODI's data operations and engineering program is mission-critical to ODI's ability to fulfill this mandate, as it provides the foundational data infrastructure, standards, and practices that enable departments to use data effectively, responsibly, and at scale.

This position establishes and oversees the policies, procedures, and technical standards that govern ODI's data engineering work and its technical delivery to partner departments. These standards directly shape how data is collected, transformed, secured, and made available for analytics, program improvement, and service delivery across the State. Without a strong, consistent data operations and engineering function, ODI would be unable to reliably support departmental partners in adopting modern data practices or to advance statewide data strategy objectives. This role's leadership of ODI's data engineering program is essential to achieving ODI's statutory mission and to enabling measurable improvements in the effectiveness and equity of services delivered to Californians.

B. SUMMARY OF REQUEST (continued)

11. Describe what has changed that makes this request necessary. Explain how the change justifies the current request. Be specific and provide examples.

Since its establishment, the Office of Data & Innovation (ODI) has been charged with supporting departments statewide in adopting modern data practices and improving the use of data to deliver better government services. Over time, ODI's role has evolved from primarily advisory and project-based support to the sustained operation and governance of shared data platforms, cross-department data infrastructure, and enterprise engineering standards. Demand for ODI's data operations and engineering services has continued to grow, with departments increasingly relying on ODI for shared infrastructure, integration frameworks, and technically complex initiatives that require consistent architectural oversight and long-term stewardship.

As ODI's platforms and services have matured, the technical complexity, security requirements, and long-term risk profile of these systems have reached a threshold requiring formalized technical governance and authoritative architectural oversight. ODI now manages systems and standards that influence how multiple departments build, integrate, and maintain data assets. Architectural decisions in this environment carry significant consequence, including risks related to data integrity, security compliance, interoperability failures, service disruptions, and inefficient use of public resources. The volume, scope, and consequence of these decisions represent a substantive change from ODI's earlier advisory role.

This change has been reinforced by Executive Orders that identify ODI as a coordinating and enabling entity for advanced data capabilities, including Executive Order N-12-23 on generative artificial intelligence and Executive Order N-30-25 on government effectiveness and efficiency. These directives increase the technical complexity and implementation demands placed on ODI-managed systems and require the development of enforceable engineering standards, risk controls, and architectural safeguards. Implementing these initiatives requires sustained executive-level technical authority capable of independently evaluating tradeoffs, authorizing architectural approaches, and ensuring compliance with approved statewide direction.

Currently, technical governance responsibilities are distributed among senior exempt staff whose primary responsibilities are strategic oversight, portfolio management, and cross-agency coordination. The Deputy Director, Data Operations Strategy, establishes and implements the statewide strategic direction for data operations, develops the roadmap in alignment with the Statewide Data Strategy and ODI priorities, maintains executive-level partnerships, and retains final approval authority for policy direction. While the Assistant Chief Data Officer prioritizes statewide data standards and governance initiatives and advises on long-term policy direction, there is no dedicated executive-level technical authority responsible for translating those approved priorities into binding engineering frameworks and enforcing architectural consistency across ODI-managed platforms. This evolution reflects not a shift in strategic ownership, but the need to formalize a dedicated executive-level technical authority to implement and enforce engineering standards consistent with approved direction.

This responsibility cannot be appropriately assigned to a civil service classification. Managerial classifications such as SSM III are designed to oversee programs and staff, but they do not provide the breadth of independent executive authority required to establish binding architectural standards, adjudicate enterprise-level technical tradeoffs, and assume accountability for decisions with statewide system impact. Similarly, specialized technical classifications such as ITS III provide advanced subject matter expertise and project leadership; however, they function within established policy and architectural direction and do not carry the delegated executive authority to independently authorize technical governance frameworks that shape enterprise infrastructure.

The Principal Data Architect role requires sustained independent judgment, final architectural recommendation authority within delegated parameters, and accountability for high-consequence technical determinations affecting multiple departments and shared infrastructure. The position must routinely evaluate competing technical, security, fiscal, and operational considerations and render decisions that influence the State's long-term data architecture. These responsibilities exceed the scope of a civil service position, as they involve enterprise-level authority, significant consequence of error, and the need to translate executive direction into binding engineering standards without direct supervision.

Establishing the Principal Data Architect as a Career Executive Assignment formalizes this level of authority and ensures appropriate executive accountability for technical governance decisions that materially affect statewide data infrastructure. Without a CEA-level technical authority, ODI would continue to rely on distributed staff and executive leadership to absorb high-consequence architectural decisions informally, increasing operational risk and limiting the State's ability to scale data services in a controlled and sustainable manner.

C. ROLE IN POLICY INFLUENCE

12. Provide 3-5 specific examples of policy areas over which the CEA position will be the principle policy maker. Each example should cite a policy that would have an identifiable impact. Include a description of the statewide impact of the assigned program.

The Principal Data Architect will define the technical policies, standards, and procedures that govern ODI's data engineering platforms and services work, including data modeling conventions, transformation patterns, testing and validation requirements, documentation standards, and lifecycle maintenance practices. These standards are applied within ODI services and are taught and reinforced statewide through engagements with partner departments. Statewide impact includes enabling departments to adopt consistent, modern data engineering practices that improve the reliability and usability of data across programs.

This position will establish technical governance policies and procedures that guide how ODI delivers data engineering services to departments, including engineering project intake criteria, technical delivery models, collaboration expectations, and transition to departmental ownership. These policies directly affect how departments access and benefit from ODI's data engineering services and ensure that statewide engagements are scalable, consistent, and sustainable. The Principal Data Architect serves as the principal policy developer and technical authority for ODI's Data Engineering Service Governance and Delivery Policy. This policy defines the governance structures, engineering project intake criteria, technical delivery models, collaboration requirements, and transition-to-ownership standards that guide how ODI delivers data engineering services to departments.

This policy has statewide impact by determining how departments access and benefit from centralized data engineering services. It ensures that engagements are scalable, consistent, and sustainable, shaping the allocation of technical resources across multiple departments and influencing how data modernization initiatives are prioritized and executed statewide. The Principal Data Architect will define technical decision-making frameworks that guide the evaluation and adoption of data engineering tools, architectural approaches, and engineering tradeoffs for ODI managed systems. These frameworks inform architectural choices across ODI platforms and are communicated through statewide technical engagements and communities of practice, influencing how departments align their implementations with approved engineering patterns that balance reliability, security, maintainability, and long-term viability.

The Principal Data Architect serves as the principal policy developer and technical authority for ODI's Enterprise Data Architecture and Technology Evaluation Policy. This policy establishes formal decision-making frameworks that guide the evaluation, selection, and adoption of data engineering tools, architectural approaches, and technical tradeoffs for ODI-managed systems. This policy has an identifiable statewide impact because it influences architectural choices across ODI platforms and informs technical guidance shared through statewide engagements and communities of practice. By promoting approved engineering patterns that balance reliability, security, maintainability, and long-term viability, the policy shapes how departments align their data infrastructure implementations with enterprise architectural principles, reducing fragmentation and improving cross-department compatibility.

C. ROLE IN POLICY INFLUENCE (continued)

13. What is the CEA position's scope and nature of decision-making authority?

The Principal Data Architect serves as ODI's primary technical authority for data engineering practices and as a senior technical advisor to the Deputy Director, Data Operations Strategy. The position's decision-making authority is substantial and centers on defining, authorizing, and operationalizing technical governance frameworks, architectural standards, and engineering policies that govern ODI's data engineering work and cross-department technical engagements. This position has primary authority to make independent technical and architectural decisions for ODI managed data engineering projects and services, including determining appropriate engineering approaches, approved architectural patterns, tooling standards, and technical delivery models. These decisions have enterprise-level impact because they shape the shared data infrastructure, integration patterns, and engineering practices implemented through ODI's platforms and services, which are adopted by partner departments. When decisions involve tradeoffs among technical feasibility, system risk, security considerations, resource constraints, or implementation complexity, the Principal Data Architect independently evaluates options and provides clear technical recommendations to executive leadership. In doing so, the position ensures that data engineering decisions align with ODI's mission, statewide data strategy objectives, and applicable legal, security, and policy requirements. This position also ensures that ODI and agency partners are trained and well-versed in the policies and processes that are necessary to maintain compliance with statutory and policy requirements.

14. Will the CEA position be developing and implementing new policy, or interpreting and implementing existing policy? How?

This position will both develop and implement new technical policies and interpret and implement existing policies related to data engineering and data operations. As state and federal legislation, regulations, security requirements, and data governance policies evolve, the Principal Data Architect will be responsible for translating those changes into updated data engineering standards, architectural frameworks, and technical procedures for ODI's work and its multi-department data engineering services. The position will develop new policies where gaps exist to ensure that ODI's data engineering practices remain compliant, sustainable, and aligned with statewide priorities. This work requires coordination within ODI and with external partners, including the Governor's Office, the California Department of Technology, control agencies, and departmental partners, to ensure policies are practical, implementable, and appropriate for use across state departments.

The Principal Data Architect will also ensure that approved technical policies and standards are implemented consistently through engineering governance, project delivery oversight, technical guidance, training, and statewide engagements with partner departments. In developing and implementing policies, the position will consider long-term sustainability and adaptability to accommodate evolving technical, regulatory, and stakeholder needs while supporting reliable and responsible use of data to improve services for Californians.