

DUTY STATEMENT

TECH 052 (REV. 02/2018)

PROPOSED

RPA NUMBER (HR USE ONLY)

25-236

ALERT: This form is mandatory for all Requests for Personnel Action (RPA).

INSTRUCTIONS: Before completing this form, read the instructions located on last page.

Section A: Position Profile

A. DATE 6/19/2026	B. APPOINTMENT EFFECTIVE DATE	C. INCUMBENT NAME Vacant
D. CIVIL SERVICE CLASSIFICATION Senior Telecommunications Engineer		E. POSITION WORKING TITLE Chief Engineer
F. CURRENT POSITION NUMBER 695-952-3637-001		G. PROPOSED POSITION NUMBER (Last three (3) digits assigned by HR)
H. OFFICE / SECTION / UNIT / PHYSICAL LOCATION OF POSITION Office of Broadband /Middle-Mile Broadband Initiative/ Rancho Cordova		I. SUPERVISOR NAME AND CLASSIFICATION Mark Monroe, Deputy Director (Exempt)
J. WORK DAYS / WORK HOURS / WORK SHIFT (DAY, SWING, GRAVE) MONDAY – FRIDAY / 8:00 AM – 5:00 PM/ DAY		K. POSITION REQUIRES: FINGERPRINT BACKGROUND CHECK <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DRIVING AN AUTOMOBILE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

Section B: Position Functions and Duties

Identify the major functions and associated duties, and the percentage of time spent annually on each (list higher percentages first).

	<p>Information Technology Domains (Select all domains applicable to the incumbent's duties/tasks.)</p> <p><input type="checkbox"/> Business Technology Management <input type="checkbox"/> IT Project Management <input type="checkbox"/> Client Services</p> <p><input type="checkbox"/> Information Security Engineering <input type="checkbox"/> Software Engineering <input checked="" type="checkbox"/> System Engineering</p>
	<p>Organizational Setting and Major Functions</p> <p>The California Department of Technology (CDT) leads the planning, construction, and operation of the State's Middle-Mile Broadband Initiative (MMBI), a transformative effort to expand equitable internet access across California. This initiative involves close coordination with key partners including the Department of Transportation (Caltrans) and the Third-Party Administrator (TPA).</p> <p>Reporting to the Deputy Director of the MMBI, the Senior Telecommunications Engineer (STE) plays a pivotal role in shaping, delivering, and operating the statewide middle-mile network. This position combines high-level engineering expertise with statewide technical governance and engineering oversight to support the management, implementation, and operational integrity of a broadband infrastructure that will serve millions.</p> <p>The STE will perform senior-level engineering review, planning and technical validation functions, and will work closely with Caltrans and other stakeholders performing project management, engineering, design, system planning, specification, diagramming, mapping, construction, and operations of the network. The STE will provide technical guidance to state and district level staff and will support planning for operations and maintenance of the network based on industry best practices. The STE will identify technical components and engineering services requiring procurement and will work with staff and contractors to provide the engineering input for contracts needed for network operations and maintenance, service delivery, infrastructure expansion, system-level engineering, detailed design, material supply, construction, quality assurance, maintenance, and upgrades. The STE will lead the technical oversight of these functions.</p> <p>The STE will draw on experience in large-scale telecommunications engineering, including optical transport, routing, backbone architecture, and broadband network operations, applying this expertise to guide staff, contractors, and Operator personnel.</p>
25%	<p>Essential Functions (Percentages shall be in increments of 5, and should be no less than 5%.)</p> <p>Technical Governance & Architecture Oversight</p> <ul style="list-style-type: none"> • Support technical governance of the Operator's optical, routing, and backbone architecture. • Review and provide technical validation of Operator engineering designs, backbone upgrades, optical transport plans, and routing architectures. • Ensure technical changes align with CDT resiliency, scalability, and performance standards by providing senior-level engineering review.

- Serve as CDT's senior engineering authority for architecture compliance and long-term network evolution.
- Provide technical guidance to engineering staff supporting architecture review and governance activities.

25%

Network Design Validation & Strategic Technical Planning

- Validate Operator network designs to ensure compliance with CDT's architectural, resiliency, and capacity requirements.
- Review Operator capacity planning, traffic engineering, and backbone growth projections.
- Evaluate Operator vendor selections, technology roadmaps, and modernization proposals (e.g., 400G/800G upgrades).
- Review and approve Operator technical change requests, configuration baselines, and CMDB updates.

20%

Technical Standards, Change Governance & Process Oversight

- Oversee technical change governance, ensuring Operator changes follow Information Technology Infrastructure Library (ITIL), Configuration Management Database (CMDB), and configuration management requirements.
- Develop and enforce CDT technical governance standards for architecture, optical design, routing changes, and backbone resiliency.
- Ensure Operator technical processes support Service Level Agreement (SLA) compliance, chronic issue resolution, and performance reporting.
- Validate CMDB accuracy, asset relationships, and configuration item integrity.
- Provide technical oversight of staff responsible for standards development, process monitoring, and compliance verification.

20%

Operational Oversight & Performance Validation

- Validate Operator technical performance, including optical health, routing stability, and backbone availability.
- Review outage Root Cause Analyses (RCAs), chronic issues, and performance degradations; ensure Operator remediation meets CDT standards.
- Monitor backbone telemetry, optical performance metrics, routing behavior, and SLA-impacting events.
- Provide technical oversight for Operator maintenance windows, change impacts, and network resiliency testing.
- Direct staff in monitoring, documenting, and escalating operational performance issues.

10%

Marginal Functions (Percentages shall be in increments of 5, and should be no more than 5%.)

- Other related duties as required.
- Stay current with emerging trends in optical transport (400G/800G), routing architectures, DWDM/ Reconfigurable Optical Add-Drop Multiplexer (ROADM) systems, telemetry, and backbone resiliency.
- Provide expert technical input to CDT leadership on long-term network strategy, peering, interconnection, and capacity planning.

Work Environment Requirements

- May be required to work outside of normal business hours and is required to carry a mobile device.
- Must travel to meetings or customer department sites within the greater Sacramento area.
- May be assigned to work at the CDT headquarters site, within the greater Sacramento area.
- Must maintain excellent attendance to perform these functions.

Allocation Factors (Complete each of the following factors.)

Supervision Received:

The STE will receive general direction from the Deputy Director, Middle-Mile Broadband Initiative. The STE will work in an independent manner and will report to project sponsor(s), sponsor steering committee(s) and the executive team of the sponsoring entity(ies) of the project(s) that the STE will be managing.

Actions and Consequences:

The STE is responsible for carrying out the policies, processes, and procedures that are used throughout State government and are implemented statewide. It is critical that the Chief Engineer

be able to maintain a prominent level of professionalism, diplomacy, and tact as this position must be able to successfully communicate with individuals from the assessed entity as well as the Governor's Office, Legislature, State Agencies, public, and the private sector. Failure to perform could result in the operations of the assessed entity and/or CDT being disrupted. Consequently, political sensitivity, accuracy and attention to detail are of paramount importance.

Personal Contacts:

The STE will have contact with the Department Director, Broadband Deputy Directors, CDT executive staff, Public Utilities Commission (PUC), Department of Transportation (Caltrans), Third Party Administrator, Legislature, Broadband Advisory Committee, and Department of Finance (DOF) and other MMBI Project Managers.

Administrative and Supervisory Responsibilities:

Indicate "None" if this is a non-supervisory position.)

None.

Supervision Exercised:

The STE will be required to provide oversight, leadership, and direction to support staff and project team members. The STE will lead teams of staff from various other departments within and external to the CDT.

Other Information

Desirable Qualifications: (List in order of importance.)

- Baccalaureate degree in Electrical Engineering and substantial working experience leading telecommunications and broadband construction projects of similar scale.
- Professional engineering license in the State of California.
- Thorough knowledge of technology and standard industry practices of telecommunications businesses using fiber optic technologies in middle mile and last mile environments.
- Thorough knowledge of layout, locations, and equipment characteristics of fiber communications systems.
- Thorough knowledge of the principles and practices of network engineering.
- Thorough knowledge of fiber optic construction, facility design, and transmission electronics.
- Experience in large scale project management.
- Experience in state government processes, including procurement and permitting.
- Ability to perform cost estimates and forecast project timelines.
- Ability to analyze and project growth and need for additional capacity of the system.
- Ability to form and maintain effective working relationships with other State staff, customers, elected officials, external and contracted entities, as well as the public.
- Ability to communicate clearly, verbally or in writing.
- Ability to perform accurate computations and projections under stressful or hurried conditions.

INCUMBENT STATEMENT: I have discussed the duties of this position with my supervisor and have received a copy of the duty statement.

INCUMBENT NAME (PRINT)	INCUMBENT SIGNATURE	DATE
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SUPERVISOR STATEMENT: I have discussed the duties of this position with the incumbent.

SUPERVISOR NAME (PRINT)	SUPERVISOR SIGNATURE	DATE
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