

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 10/20)

Fiscal Year 2023-24	Business Unit 4120	Department Emergency Medical Services Authority	Priority No. N/A
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Budget Request Name 4120-015-BCP-2023-A1	Program 3820-Emergency Medical Services Authority	Subprogram N/A
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Budget Request Description

California Emergency Medical Services Information System Maintenance and Operations

Budget Request Summary

The Emergency Medical Services Authority (EMSA) requests \$4.9 million General Fund in 2023-24 and \$185,000 in 2024-25. The requested resources will provide for the maintenance and operations of the California Emergency Medical Services Information System (CEMSIS), which is needed so that EMSA can continue to monitor and continuously improve California's Emergency Medical Services (EMS) System to meet the patient and clinical care needs of its 39 million residents and 268 million visitors per year.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed N/A
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Does this BCP contain information technology (IT) components? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO Jesus Ochoa	Date 3/23/2023
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For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.

Project No. N/A **Project Approval Document:** N/A
Approval Date: N/A

If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee. N/A

Prepared By Tom McGinnis	Date 1/16/2023	Reviewed By Rick Trussell	Date 1/16/2023
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Department Director Elizabeth Basnett	Date 1/23/2023	Agency Secretary Julie Souliere	Date 1/23/2023
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Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE Dept. of Technology

PPBA Sonal Patel	Date submitted to the Legislature 3/30/2023
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Analysis of Problem

A. Budget Request Summary

The Emergency Medical Services Authority (EMSA) requests \$4.9 million General Fund in 2023-24 and \$185,000 in 2024-25. The requested resources will provide for the maintenance and operations of the California Emergency Medical Services Information System (CEMSIS), which is needed so that EMSA can continue to monitor and continuously improve California's Emergency Medical Services (EMS) System to meet the patient and clinical care needs of its 39 million residents and 268 million visitors per year.

B. Background/History

CEMSIS is a secure, centralized data system for collecting data about individual emergency medical service requests, patients treated at hospitals, and EMS provider organizations. CEMSIS uses the universal standard for collecting patient care information from an emergency 9-1-1 call for assistance, called the National Emergency Medical Services Information System (NEMSIS). CEMSIS provides the only statewide means of monitoring the care EMS agencies provide to Californians and those visiting our state, the overall health of the EMS system, and of identifying areas where local or statewide events are exerting strains on or imperiling that system. Throughout the COVID-19 pandemic, CEMSIS has proven an essential source of critical information for evaluating patient care.

CEMSIS is able to exchange data with other appropriate state and national data sources to create a timely, accurate, complete, uniform database that is used to assess the EMS system in California. CEMSIS has been designed to receive EMS, Trauma, Stroke, ST segment Elevated Myocardial Infarction (STEMI), and Emergency Medical Services for Children (EMSC) data electronically from each of California's 34 Local Emergency Medical Services Agencies (LEMSA). Data is necessary to assess performance, quality, utilization, and prevention benchmarks against existing national standards and inform EMS officials in making quality improvement policies for EMS and trauma care in California.

CEMSIS data related to EMS in California is currently captured locally by EMS provider agencies, trauma centers, stroke centers, STEMI centers, and EMS for Children (EMSC) EMSC centers, as required by Title 22 of the California Code of Regulations. In most cases, this data is transferred to one of California's 34 LEMSAs which are responsible for the administration of EMS in accordance with Division 2.5 of the California Health and Safety Code. The data reflects patient treatment in EMS, trauma, stroke, STEMI, and EMSC, while outcome data includes trauma, stroke, STEMI, and EMSC cases at the local level based on local data collection standards.

Participation by LEMSAs in CEMSIS serves as a valuable tool for local EMS system quality improvement, improved EMS system management, and the ability to benchmark against and comply with existing EMS national standards. Additionally, the State Trauma Registry, Stroke Registry, STEMI Registry, and the EMSC Registry components of CEMSIS provide the necessary data for research and quality assessment to inform clinicians and policy makers about methods to optimize the care of patients and their medical outcomes.

California Health and Safety Code section 179.227 and sections 100171 and 100450.200 of the California Code of Regulations require the maintenance and security of CEMSIS. EMSA has historically contracted the management, hosting, and support of this data repository to a LEMSA. EMSA was in the second year of a three-year contract with the LEMSA when the LEMSA informed EMSA in July 2022 that they would not be able to fulfill their contractual obligations to support CEMSIS, which created an immediate and urgent need to migrate the hosting and management of CEMSIS to EMSA in order to maintain operations.

Analysis of Problem

To this end, EMSA issued an emergency contract to ImageTrend, Inc. on September 22, 2022, for the migration and maintenance and operations of CEMSIS. The emergency contract includes a two-year base term with two optional years. EMSA secured emergency funding from the Department of Finance and the Legislature for the first year of the base term and one year of consulting support from the Office of Systems Integration (OSI) for contract management and operational support.

EMSA is currently in Stage 2 of the California Department of Technology's Project Approval Lifecycle (PAL) process for the development of a new statewide database, the California EMS Data Resource System, known as CEDRS, which includes the migration of CEMSIS to EMSA in its business case. EMSA intends to complete the PAL planning process by June 2024.

C. State Level Consideration

EMSA is responsible for maintaining a safe, effective, and efficient system of prehospital emergency care for all California citizens and visitors. This responsibility is codified in sections 1797.1, 1797.6, 1797.102, and 1797.227 of the Health and Safety Code. To achieve this end, EMSA relies on CEMSIS.

COVID-19 has underscored the critical need to maintain the uninterrupted functioning of CEMSIS. Since April 2020, EMSA has been running weekly reports from the CEMSIS system, which include ambulance patient offload times, primary impressions, and call volume, all broken down by county and other metrics. With the situational awareness that CEMSIS provides, EMSA created a response plan to mitigate COVID-19 impacts as well as adjudicate resources, including staff, supplies, equipment, and ambulance strike teams to the most vulnerable areas of the state.

During the winter surge of 2022 (Omicron), EMSA analyzed ambulance patient offload times from the CEMSIS system and was able to identify COVID's most severe impact on the health care continuum. CEMSIS allowed the state to monitor those areas where ambulances were unable to transfer patient care to the hospital in a timely manner, backlogs commonly known as being, "on the wall."

The CEMSIS data enabled the state to create an entirely new medical surge program, known as "Ambulance Patient Offload Times (APOT) Teams," which were sent to hospitals and local EMS systems to relieve hospital/EMS burden and allow ambulances to return to service (i.e., return to 911 calls). EMSA still monitors these metrics consistently and anticipates utilizing them in the future.

Additionally, this system is directly linked to the state's SMARTER (Shots, Masks, Awareness, Readiness, Testing, Education, and Rx) Plan for COVID-19 response, in that EMSA uses CEMSIS data for "Awareness" and "Readiness." Awareness is the ability to coordinate our state and local government response and readiness with the staff, supplies, equipment, and teams to respond quickly.

EMSA has and will continue to use this data to create statewide situational awareness and understanding of where the California EMS System may be overburdened, which could result in jeopardized patient care.

Oversight and assessment of the EMS system cannot be accomplished without data collected through CEMSIS, including the State Trauma Registry, Stroke Registry, STEMI Registry, and EMSC registry. If CEMSIS is not funded, EMSA will be unable to perform the following critical services:

Analysis of Problem

- Maintain specialized pre-hospital EMS, trauma, stroke, STEMI, and EMSC data submissions by LEMSA's into CEMSIS, which enables system analyses and compliance with California state and applicable laws and regulations,
- Provide statewide quality improvement resources and technical assistance to LEMSA's, consistent with state regulations, leading to measurable improvements in prehospital EMS services and public health systems statewide,
- Continue LEMSA participation in the collection and evaluation of EMS pre-hospital data to establish EMS service baselines and metrics and key components of quality improvement,
- Collect complete EMS, trauma, stroke, STEMI, and EMSC data across the state,
- Access information on patient care and improve the standard of care for EMS, trauma, stroke, STEMI, and EMSC patients,
- Participate in federally-compliant data sharing and analysis programs,
- Participate in the California Health and Human Services Agency's Open Data Portal and Data Exchange Framework,
- Access data analytics, without which EMSA is unable to provide mandatory quality improvement measures both locally and statewide,

D. Justification

This proposal requests \$4.9 million General Fund in 2023-24 and \$185,000 General Fund in 2024-25 for staffing and consultant resources to provide for the maintenance and operations of the CEMSIS system. Because EMSA previously contracted out the management of CEMSIS to the LEMSA, EMSA requests limited-term staffing and contract resources to support state responsibilities for the management of both the system and the ImageTrend contract. In addition, EMSA is currently in Stage 2 of the PAL process with the Office of Systems Integration (OSI) for CEDRS, which will include the replacement for the current CEMSIS solution. Therefore, the funding requested in this proposal is intended to support the operation of CEMSIS until the implementation of the new CEDRS solution is complete.

BCP Resource Request

Budget Item	FY 2023-24	FY 2024-25
Personal Services	\$185,000	\$185,000
Consulting Services		
Image Trend	\$4,081,000	\$0
OSI	\$242,000	\$0
Data Validation	\$430,000	\$0
Total	\$4,938,000	\$0

CEMSIS Software and Support (\$4.1 million)

The Contractor will provide the software and support services to implement, host, and maintain CEMSIS for pre-hospital EMS, Trauma, Stroke, STEMI, and EMSC data. The repository will include a local data collection and storage site and technical assistance to Local EMS Agencies to support their data collection systems and standards to be compliant with current and future national data standards enabling them to participate in CEMSIS.

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OSI (\$242,000)

OSI will provide consulting support for contract management, vendor management, and technical subject matter expertise in support of the ImageTrend, Inc. contract.

Contractor (Data Validation Consultant) (\$430,000)

The Contractor will oversee advancements of the CEMSIS project by confirming the LEMSA's data is compatible and in compliance with recent versions of the NEMSIS and CEMSIS data standards. The Contractor will integrate new and existing data with CEMSIS software in order to create ad hoc or canned reports for users. Additionally, the Consultant will assist EMSA in obtaining data and information from LEMSAs as required in statute and regulations. The Consultant will see that the CEMSIS data is also uploaded to nationwide information systems which include the National Emergency Medical Services Information System (NEMSIS), Biospatial, Overdose Detection Mapping Application Program (ODMAP), and the Fatality Analysis Reporting System (FARS).

Resources equivalent to a Health Program Manager II (\$185,000)

This staffing resource will direct a multidisciplinary team that will confer with stakeholders upon request to provide technical assistance and guidance to improve quality of care and healthcare outcomes within California's EMS System and will also oversee the collection of data and research into best practices and drivers of quality care. This resource is requested for two years to engage in knowledge transfer from the Data Validation Consultant, maintain the data support and reporting requirements of CEMSIS ahead of its integration into CEDRS, and provide oversight over other rank-and-file staff in the EMS Division. EMSA intends to administratively establish this position.

E. Outcomes and Accountability

EMSA transitioned responsibilities for maintenance and operations of the CEMSIS to the state to stabilize the system. The outcome for this BCP is that EMSA, in coordination with the solution provider and the OSI, is able to maintain and operate the CEMSIS system for the CA EMS System. Data that is placed into CEMSIS must fully and accurately represent the response in our EMS system in California. Oversight of the data system through a series of maintenance and monitoring practices supports the highest data compliance that could otherwise not be possible without these processes. The maintenance and operations include, but are not limited to:

- 750+ connections with 34 local EMS agencies and providers. These connections are the essential access points for data being sent to CEMSIS. The proper operation of these access requires monitoring and validation through a maintenance process that evaluates the flow of data from providers and LEMSAs.
- Data security and integrity for over 6 million ambulance transports each year. Data in CEMSIS must be obtained and stored in a manner that prevents the data from becoming compromised in its transmission or storage. For EMSA to make field-level treatment decisions, it is essential that data in CEMSIS has the highest integrity consistent with the EMS data standard.
- Continuity of data validation and help desk management for over 34 LEMSAs. Validating data is mandatory for EMSA to be able to analyze the EMS system in California. Data that is not valid leads to poor decision making for field operations.

F. Analysis of All Feasible Alternatives

Alternative 1: Approve \$4.9 million General Fund in 2023-24 and \$185,000 General Fund in 2024-25 to support the maintenance and operation of CEMSIS.

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Pros:

- Continue the state's EMS Systems' current CEMSIS program to meet the mandated services outlined above.
- Continues compliance with California's statutes and regulations.
- Continues funding from the Health Resources and Services Administration (HRSA) in the amount of \$130,000 per year to oversee the EMSC program in California. Each state accepting the HRSA funding agrees to submit its EMS data to the NEMSIS as a condition of continued funding. Absent the ability to upload EMS data into NEMSIS, EMSA is not able to meet the HRSA data requirement and the funding will be lost.
- Continues situational awareness of EMS in CA. This could include during wildfires, earthquakes, floods, pandemics, and flu season.

Con:

- Increases costs to the General Fund.

Alternative 2: Do not approve the funding request.

Pro:

- Does not increase costs to the General Fund.

Cons:

- CEMSIS EMS, State Trauma Registry, Stroke Registry, EMSC Registry, and STEMI Registry would no longer be operational. EMSA would be unable to access and analyze patient care data to monitor and improve the standard of care for field patients in the state.
- The EMS Core Quality Measures program would be rendered inoperable to benchmark the performance of California's EMS system for critical quality measures such as arrival at the scene in a timely manner, accurate patient assessment, delivery of time-sensitive prehospital therapy, and transport to a hospital capable of providing necessary care,
- EMSA will be unable to run APOT reports or complete statutorily required biannual APOT reports to the EMS Commission to help identify problems and develop an action plan and strategies for hospitals and LEMSAs to reduce ambulance patient offload delays. Data in CEMSIS is used to measure and report the APOT times in California since the data used for APOT is included in field level Electronic Health Records (EHRs),
- EMSA would lose situational awareness of EMS in California during events such as wildfires, earthquakes, floods, pandemics, and flu season. CEMSIS data allows EMSA to assess EMS system utilization in sentinel events as well as day-to-day operations. This allows EMSA to help local EMS agencies plan and implement systems of care effectively during day-to-day and peak operations situations. Without data to confirm the system usage, EMSA would be unable to proactively make changes to the EMS system, so it is available when needed for the citizens of California,
- EMSA will lose \$130,000 per year in funding from the HRSA for the purposes of oversight of the EMSC program in California. Each state accepting the HRSA funding agrees to submit its EMS data to NEMSIS as a condition of continued funding. Absent the ability to upload EMS data into NEMSIS, EMSA is not able to meet the HRSA data requirement, and the funding will be lost,
- Unable to improve local data quality and to prepare for California EMS's upcoming National Health Information Exchange expectations.

G. Implementation Plan

This request pertains to funding needed to maintain and operate CEMSIS. Upon approval of this proposal, EMSA will administratively establish and initiate the recruitment process for the HPM II

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with a start date in July 2023. The CEMSYS system has been fully migrated to EMSA as of March 2023, migration and system monitoring of the data uploaded from LEMSAs, EMS providers, and healthcare facilities is ongoing, and a robust training program focused on data analysis and report generation will start in April 2023 and continue through August 2023.

H. Supplemental Information

Attachment A: Fiscal Detail Sheet

I. Recommendation

Approve Alternative 1.

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Attachment A: Fiscal Detail Sheet

BCP Title: California Emergency Medical Services Information System Maintenance and Operations

BR Name: 4120-015-BCP-2023-A1

Budget Request Summary

Personal Services

Personal Services	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
Salaries and Wages	0	97	97	0	0	0
Earnings - Temporary Help						
Total Salaries and Wages	\$0	\$97	\$97	\$0	\$0	\$0
Total Staff Benefits	0	42	42	0	0	0
Total Personal Services	\$0	\$139	\$139	\$0	\$0	\$0

Operating Expenses and Equipment

Operating Expenses and Equipment	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
5301 - General Expense	0	2	2	0	0	0
5304 - Communications	0	2	2	0	0	0
5320 - Travel: In-State	0	2	2	0	0	0
5322 - Training	0	2	2	0	0	0
5324 - Facilities Operation	0	8	8	0	0	0
5340 - Consulting and Professional Services - Interdepartmental	0	680	8	0	0	0
5340 - Consulting and Professional Services - External	0	4,081	0	0	0	0
5342 - Departmental Services	0	21	21	0	0	0
5344 - Consolidated Data Centers	0	1	1	0	0	0
Total Operating Expenses and Equipment	\$0	\$4,799	\$46	\$0	\$0	\$0

Total Budget Request

Total Budget Request	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
Total Budget Request	\$0	\$4,938	\$185	\$0	\$0	\$0

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Fund Summary

Fund Source

Fund Source	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
State Operations - 0001 - General Fund	0	4,938	185	0	0	0
Total State Operations Expenditures	\$0	\$4,938	\$185	\$0	\$0	\$0
Total All Funds	\$0	\$4,938	\$185	\$0	\$0	\$0

Program Summary

Program Funding

Program Funding	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
3820 - Emergency Medical Services Authority	0	4,938	185	0	0	0
Total All Programs	\$0	\$4,938	\$185	\$0	\$0	\$0

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Personal Services Details

Salaries and Wages

Salaries and Wages	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
TH00 - Temporary Help (Eff. 07-01-2023)	0	97	97	0	0	0
Total Salaries and Wages	\$0	\$97	\$97	\$0	\$0	\$0

Staff Benefits

Staff Benefits	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
5150900 - Staff Benefits - Other	0	42	42	0	0	0
Total Staff Benefits	\$0	\$42	\$42	\$0	\$0	\$0

Total Personal Services

Total Personal Services	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
Total Personal Services	\$0	\$139	\$139	\$0	\$0	\$0