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

Fiscal Year	Business Unit	Department	Priority No.
2023-24	4440	Department of State Hospitals (DSH)	001

Budget Request Name	Program	Subprogram
4440-009-BCP-2023-GB	4440 - Administration	4400010 – Headquarters Admin, 4400020-Hospital Admin, 4410010 - 4410050 – All Hospitals

Budget Request Description
Electronic Health Records Planning

Budget Request Summary
The Department of State Hospitals (DSH) requests $21.5 million General Fund and 40.2 positions in Fiscal Year (FY) 2023-24, and $22.3 million General Fund and 58.0 positions ongoing to complete remaining planning activities, complete the System Integrator procurement and initiate the activities needed for the transition into implementation of the Continuum Electronic Health Record (EHR) System.

Requires Legislation	Code Section(s) to be Added/Amended/Repealed
☐ Yes ☒ No	None

Does this BCP contain information technology (IT) components?	Department CIO	Date
☒ Yes ☐ No	Chad Corrin	

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.4440-126 **Project Approval Document:** Stage 2 Approval Letter

Approval Date: 4/1/2021

If proposal affects another department, does other department concur with proposal? ☐ Yes ☐ No

Prepared By	Date	Reviewed By	Date
Alicia Alvarado	1/10/2023	Chad Corrin, CIO (A)	1/10/2023
Department Director	**Date**	**Agency Secretary**	**Date**
Stephanie Clendenin	1/10/2023	Mark Ghaly, MD, MPH	1/10/2023

Department of Finance Use Only

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

PPBA	Date submitted to the Legislature
Matt Aguilera	1/10/2023

A. Budget Request Summary

The Department of State Hospitals (DSH) requests $21.5 million General Fund and 40.2 positions in Fiscal Year (FY) 2023-24, and $22.3 million General Fund and 58.0 positions ongoing to complete remaining planning activities, complete the System Integrator procurement and initiate the activities needed for the transition into implementation of the Continuum Electronic Health Record (EHR) System.

B. Background/History

DSH manages the nation's largest inpatient forensic mental health hospital system. Its mission is to provide evaluation and treatment in a safe and responsible manner, by seeking innovation and excellence in state hospital operations, across a continuum of care and settings. DSH is responsible for the daily care and provision of mental health treatment of its patients. DSH oversees five state hospitals (Atascadero, Coalinga, Metropolitan, Napa, and Patton) and employs nearly 13,000 staff. In addition to state hospital treatment, DSH provides services in contracted Jail-Based Competency Treatment (JBCT), Community-Based Restoration (CBR), pre-trial felony mental health diversion programs, other community-based facilities, and the conditional release program (CONREP). DSH is responsible for the daily care to over 7,000 patients, in FY 2021-22, DSH served 8,070 across the state hospitals, 2,014 in JBCT and 813 in CBR contracted programs and 885 in CONREP programs. In addition, during FY 2021-22, 340 individuals were diverted into county programs funded by DSH.

EHR systems have become a healthcare industry standard supporting the successful foundation to operate a hospital organization. These systems maximize the availability of patient information to all health care providers at any time needed, eliminating the delay or loss of valuable medical information which avoids interference in providing quality care and increases the efficiency of managing complex patient treatment pathways.

Resource History from Prior Budget Acts

In the 2018 Budget Act, the DSH EHR BCP1 was authorized for $1.3 million and 4.0 limited-term positions in FY 2018-19 and $713,000 in FY 2019-20 to continue Stages 3 and 4 of the Project Approval Lifecycle.

In the 2020 Budget Act, DSH EHR BCP2 was authorized for $2.4 million and 4.0 positions in FY 2020-21, $3.2 million and 8.0 positions in FY 2021- 22, $6.1 million and 18.0 positions in FY 2023-24 and $3.5 million and 18.0 positions in FY 2024- 25 and ongoing to continue planning and procurement of the EHR. This funding supports the activities required by the State's Project Approval Lifecycle (PAL) Stage Gates 3 and 4, which includes procurement of the solution.

In the 2022 Budget Act, DSH EHR BCP3 is authorized for $2.4 million General Fund and 6.0 positions in FY 2022-2023, $19.8 million and 8.0 positions in FY 2023-24, $20.8 million and 10.0 positions in FY 2024-25, and $8.2 million and 10.0 positions ongoing beginning in FY 2025-26 to prepare for and support the operation of the enterprise Continuum Electronic Health Record (EHR) Project, primarily to upgrade the Wireless Local Area Networks at all five hospitals.

In the 2022 Budget Act, DSH received a reappropriation of funding from FY 2021-22 and an extension of the encumbrance/expenditure period until June 30, 2024, to continue the implementation phase of the Pharmacy Modernization project. In addition, DSH will receive $3.2 million in FY 2023-24, $3 million in FY 2024-25, $2.9 million in FY 2025-26 and $1.2 million in FY 2026-27 to complete the implementation phase at all hospitals and to cover initial maintenance and operations costs. The Pharmacy Modernization project addresses the need to replace the current, manual processes used for inventory control, medication dispensing and security of controlled drugs. This will be accomplished with the implementation of automated, integrated systems, re-architecture of the pharmacy application environment, and equipment with standardized practices across the DSH system. The re-architecture of the Pharmacy application environment consolidates the five hospital systems and will provide a single connector for future use by the Department's proposed Electronic Health Record system.

Project Approval Lifecycle History

In 2017, DSH initiated the EHR project with submittal of its Project Approval Lifecycle (PAL) Stage One Business Analysis (S1BA) to CDT. The S1BA package was approved by CDT in November of 2017. Subsequently, DSH submitted its Stage 2 Alternatives Analysis (S2AA) package which was approved by CDT in April of 2021.

Currently, DSH has completed Stage 3 Solution Development (S3SD) documentation and anticipates CDT approval early in 2023 which would enable the EHR procurement to begin prior to the end of FY 2022-23, paving the way for vendor selection and contract award early in FY 2024-25. In concert with PAL activities, DSH has focused on readiness initiatives designed to support the project and mitigate risks that potentially threaten project objectives and success. These activities focus on:

Upgrading WLANs in all five hospitals

DSH has retained a contractor to assess the WLAN infrastructure at each of the five hospitals. The contractor will make recommendations for improvements that allow for increased EHR network traffic while preserving the capacity to meet existing demands. Once the assessment is complete at each of the five hospitals sequentially, DSH will contract for WLAN upgrade services. DSH is currently in progress of the procurement for DSH-Coalinga for such services and expects to begin implementation of the WLAN access points in March of 2023, with the remaining hospitals to follow consistent with the rollout of the sequencing of the EHR system.

Data Architecture and Integration

The core of DSH data is currently housed in an outdated and cumbersome mainframe systems developed in the 1980's. These systems are completely dependent on architectures and technology foundations developed well over 30 years ago. Primary among these systems is the mainframe Admission Discharge Transfers (ADT) application. ADT ensures patients are admitted, moved, and discharged and serves as the primary data store of the patient record for DSH.

DSH has several other legacy systems running like ADT, each with their own direct connections that populate patient data to and from each other. Each of these connections are then running via slightly different legacy codebases and technologies which are much older, less secure communication mechanisms than what is

available today. Each connection is difficult to maintain and will require considerable work to enable communication via standard modern data exchange formats.

The data within these legacy systems is buried inside aged and unsupported software, locked into original and poorly structured formats not designed for the needs of a modern hospital system. Being locked into this legacy format impedes modern data analytics, makes integration difficult and conformance to healthcare interoperability standards requires expensive workarounds to achieve.

In FY 2021-22, DSH contracted with a data consulting firm to analyze the state of DSH legacy data and make recommendations on how best to utilize the data in the new EHR system. The assessment was completed in July 2022, allowing DSH to partner with CDT in the development of the data architecture and integration contract. DSH will contract with another provider utilizing the results of the analysis and recommendations in the spring of FY 2022-23. The focus of these roles will provide recommendations, guidance, and support with respect to data activities; profiling, standardization, cleansing, conversion, migration, integration, cloud integration, and data governance required for the Continuum-EHR project.

Organizational Change Management

For the overall success of the EHR project, it is critical that DSH's five hospitals have common business and clinical practices and processes that can transition into an electronic system. In addition, DSH has begun to make fundamental changes to infrastructure management, the IT development process (transition to agile), and the system governance process that will enhance the department's ability to adapt to changing business needs. Organizational changes are also being made in the technology services operation, as well as, in other program and operational divisions within DSH. Clinical project staff have been working on gaining leadership and staff buy-in on standardization of business processes, meeting with stakeholders to answer questions and communicating project status and receiving formal change practitioner training (Prosci). However, due to the magnitude of change across DSH, professional OCM services are needed to ensure that communication, collaboration, workflow analysis, business process design and training and development activities are appropriate and well-suited to the project. In FY 2023-24, DSH will contract with an OCM consulting firm to provide such services, which funding was provided in prior resource requests.

Project Oversight and Support

Beginning with PAL Stage 1, DSH has maintained a collaborative relationship with CDT, relying on guidance provided by the Office of Statewide Project Delivery in the planning phase to navigate State PAL processes successfully. With approval of S3SD, DSH will enter Stage 4 and will require, in the form of Independent Project Oversight, advice and guidance from its CDT partner through completion of Stage 4 and system implementation. Since 2020, DSH has contracted for Project Management services to support the planning phase of the project and, beginning in FY 2023-24, will continue to contract for project management services through implementation and into maintenance and operations.

Planning and Procurement

The project activities that are the core objective of this request will allow DSH to complete the remaining planning efforts and ensure the infrastructure is appropriately structured, laying the technical foundation and systems the EHR will need before System Integrator onboarding. The EHR system will become the single largest repository of mission critical patient treatment information across DSH and this request enables DSH to successfully onboard and collaborate with the selected EHR System Integrator preparation for the project's future implementation.

Resource History
Electronic Health Record *(Dollars in thousands)*

Program Budget	2017-18	2018-19	2019-20	2020-21	PY2021-22	2022-23
Authorized Expenditures	0	$1,267	$714	$2,425	$3,321	$2,300
Actual Expenditures	0	$1,717	$3,163[1]	$2,924[1]	$3,698[1]	TBD
Revenues	N/A	N/A	N/A	N/A	N/A	N/A
Authorized Positions	0	4.0	4.0	4.0	8.0	24.0
Filled Positions	0	4.0	3.0	4.0	8.0	TBD
Vacancies	0	0	1.0	0	0	TBD

[1] Actual expenditures exceeded BCP authorized expenditures due to redirection of staff to assist project team throughout the planning phase.

C. State Level Consideration

This proposal is essential to the remaining planning efforts in preparation of implementation of an EHR and is consistent with DSH's vision, mission, goals, and objectives as set forth in the 2018 - 2023 DSH Strategic Plan. Specifically, this proposal supports DSH's vision ("Caring Today for a Safe and Healthy Tomorrow") and its mission "to provide evaluation and treatment in a safe and responsible manner, by leading innovation and excellence across a continuum of care and settings." Additionally, this proposal supports DSH's four goals of a safe environment, organization and operational excellence, innovative treatment and forensic evaluation, and integrated behavioral health system. EHR will provide the capability to integrate and organize patient health information and facilitate near real-time distribution among all authorized providers involved in a patient's care. In addition, Assembly Bill (AB) 133 establishes a mandate for data sharing for most health care providers beginning in January 2024, however, DSH has until January 31, 2026, to come into

compliance with this bill. An electronic health record will enable DSH to comply with this mandate in a meaningful and efficient way.

The proposal integrates clinical, financial, and system structures to facilitate seamless care delivery. Furthermore, the application will enable DSH to develop a complete data analytics program to utilize data derived from the EHR-continuum products to better guide patient treatment. Data analytics will also help strengthen DSH academic partnerships, enhance opportunities for meaningful research, and allow DSH to contribute to clinical literature more fully.

This proposal fosters the first goal of CDT's Vision 2023 Strategic Plan: "Put People First" – "Build digital government more quickly and more effectively" by supporting integration of service delivery to the people of California through secure, effective, and innovative technology solutions. Building a comprehensive Continuum product for California's state hospitals will increase operational agility and performance by delivering innovative information technology services that improve the interoperability of patient data across patient care givers. Ultimately, this comprehensive interconnected system will provide health care professionals a more complete medical record of a patient, with all the latest information (tests, medications, etc.) presented in near real time.

D. Justification

Staffing Needs

The EHR Project Team is composed of a mixture of state staffing and consultant resources. This mix is needed to meet all on-going project implementation, planning, administrative, contracts, project management, technical, architecture, program, business, organizational change management, communication, training (enterprise and local), and coordination activities. This proposal requests funding to align state staff to be reflective of current and expected project needs. Obtaining state staff with the appropriate knowledge, experience and skills is critical to meet the technical complexities required for this project and ensure overall success. Embedding requested state staff in the project will also ensure retention of project knowledge, as well as increase project efficiencies because internal resources have deep familiarity with hospital, department, and state business practices. Assigning state staff to the project will increase the likelihood of long-term sustainment of organizational change brought by implementation of the EHR system.

EHR End User Training Team - Asst Coordinator Nursing Services (1 Permanent), Registered Nurse (2 Permanent), and Program Director (1 Permanent) - FY 2023-24 $420,000, FY 2024-25 $940,000, FY 2025-26 and ongoing

Classification	Quantity Permanent	Cost Per Position
Asst Coordinator Nursing Services	1.0	$230,000
Registered Nurse	2.0	$206,000
Program Director	1.0	$198,000

Effective training for all DSH staff is crucial for success of the project. Failure to properly train end users may result in a low level of adoption which will in turn lead to organizational disruption and have negative patient health outcomes. Training before EHR implementation will reduce errors to keep patients safe and will enhance practice efficiency. The KLAS Arch Collaborative, group of healthcare organizations committed to improving the EHR experience, surveyed over 200,000 clinicians on their EHR experience, and identifies "personal mastery" as a key determinant of end-user satisfaction with the EHR. The initial training is one of the strongest indicators of long-term satisfaction with the EHR. DSH anticipates approximately 10,000 end users' system wide. Training this workforce will require additional resources. In addition, continual new employee system training, update/change training, and remedial training will need to be offered for the life of the system. EHR solutions often receive annual/biannual updates that will require additional refresher trainings to existing users.

Clinical Business Leadership Team – 16.5 Positions and $2,790,000 in FY 2023-24 and 29.0 positions and $4,994,000 in FY 2024-25 and ongoing

Classification	Quantity Permanent	Cost Per Position
Associate Government Program Analyst	10.0	$138,000
Office Technician	1.0	$108,000
Nurse Practitioner	2.0	$243,000
Physician Surgeon	1.0	$444,000
Research Data Specialist II	6.0	$162,000
Research Scientist Manager	1.0	$272,000
Staff Services Manager I	3.0	$159,000
Program Director	1.0	$198,000
Program Assistant	2.0	$189,000
Sr. Clinical Lab Technologist	1.0	$136,000
Sr. Radiology Technologist	1.0	$143,000

Strong clinical leadership is paramount to end user adoption. Additional resources are required to ensure the EHR solution is configured appropriately to meet the clinical business needs, and project and strategic goals of DSH. Additional positions are required to coordinate change management, communication, quality improvement, and clinical safety assessment efforts at each facility. Clinical Leadership will steer efforts to plan, coordinate, implement, and evaluate EHR project objectives and results for each facility. In addition, resources will be required to collect outcome data for both project and clinical objectives and translate that data into meaningful information to drive system optimization as well as improvements to treatment delivery. Classifications, quantities, costs, and justifications are included below.

Associate Government Program Analyst (AGPA) (5) in FY 2023-24 and (10) in FY 2024-25 and ongoing

The AGPA positions will provide support to the Health Informatics initiatives. Assisting in the planning and preparation of enterprise data standardization and cleansing efforts for all existing legacy applications that will be retired or integrated with the Continuum-EHR solution. Serve as clinical informatics specialists, which bridge the gap between clinicians and data.

Office Technician (1) FY 2023-24

The Office Technician will provide support for the Clinical Business Leadership Team as well as the existing Clinical Technology Analyst Team to provide office-based support such as timesheets, travel support and arrangements, and minutes recording during essential business meetings.

Nurse Practitioners (1.0) FY 2023-24 and (2) ongoing,

Physician Surgeon (.5) FY 2023-24 and (1) Permanent ongoing

Research Data Specialist IIs (3) FY 2023-24 and (6) ongoing

Serving as Health Informaticists in their respective fields, the positions will bridge the gap between clinicians and data. Responsible for enabling better collaboration and coordination among DSH clinical and nursing providers, streamlining medical quality assurance processes. Assisting in the planning and preparation of enterprise data standardization and cleansing efforts for all existing legacy applications that will be retired or integrated with the Continuum-EHR solution. Effectively increasing accuracy and efficiency in utilizing the EHR solution.

Research Scientist Manager (.5) FY 2023-24 and (1) ongoing

The Research Scientist Manager, as the lead data steward of the Health Informaticists, will be responsible for enabling better collaboration and coordination among DSH clinical and nursing providers, streamlining medical quality assurance processes, improving cost-efficiency in care delivery, and increasing accuracy and efficiency in utilizing the EHR solution.

Staff Services Manager I (SSM I) (1.5) FY 2023-24 0 and (3) ongoing

The SSMIs will serve as clinical informatics specialists, which bridge the gap between clinicians and data. Responsible for planning and preparation of enterprise data standardization and cleansing efforts for all existing legacy applications that will be retired or integrated with the Continuum-EHR solution. Effectively supporting the efforts of the entire Clinical Business Leadership team--from contract support, hiring/recruiting vacancies, meeting support, etc.

Program Director (1) FY 2023-24 and ongoing

The Program Director (PD) position will be a hospital position which will be the primary liaison between the project team and the hospital executive leadership. The PD will provide oversight of the EHR project clinical change management at the hospital level. They will lead the planning, training, and implementation of the EHR at their facility. They will provide clinical, operational, and technical assistance and serve as a resource to the Sacramento

project team. Participate in organizational strategic planning as it relates to EHR objectives, and strategic information systems planning.

Program Assistant (1) FY 2023-24 and (2) ongoing

The Program Assistants will assist the Program Director managing logistics for system updates, communication, job aids, training, working with clinical supervisors, program management to ensure training is scheduled for all EHR initiatives. During implementation one will administratively supervise superusers and trainers, and the other will lead change management initiatives at their facility.

Sr. Clinical Lab Technologist (1) FY 2023-24 and ongoing

The Senior Clinical Lab Technologist is a Clinical Technology Analyst (CTA) for statewide lab efforts. Responsible for evaluating processes, planning implementation, and leading laboratory maintenance and operation (M&O) activities. Representation from the laboratory business line is critical to user adoption.

Sr. Radiology Technologist (1) FY 2023-24 and ongoing

The Senior Radiology Technologist is a Clinical Technology Analyst (CTA) for statewide radiology efforts. Responsible for evaluating processes, planning implementation, and leading radiology M&O activities. Representation from the radiology business line is critical to user adoption.

Technology Services (Management / Leadership, Network – Architecture, Engineering and Analysis, WLAN Network – Architecture, Engineering and Analysis, Application Development, Support, Architecture, Integration/API, Engineering, Analysis, Data Analytics)– 18.66 Positions and $3,710,000 in FY 2023-24 and 22 positions and $4,412,000 ongoing

Classification	Quantity Permanent	Cost Per Position
CEA B - Assistant Deputy Director	1.0	$ 301,000
IT Manager I	3.0	$ 214,000
IT Supervisor II	1.0	$ 178,000
IT Specialist III	6.0	$ 217,000
IT Specialist II	6.0	$ 200,000
IT Specialist I	5.0	$ 171,000

The expanded positions within the Technology Services Division (TSD) are necessary to address a wide range of technical services to the department in relation to EHR. A collated list of all TSD positions can be found in Attachment C: Technology Services Staff Proposal Breakdown. Services include at a high level:

Management / *Leadership*

CEA-B – Asst Deputy (.7) - FY 2023-24 and (1 Permanent) ongoing

With the considerable expansion in staffing, responsibilities, network/infrastructure complexity and level of management positions required to support the EHR, a higher-level structure of senior leadership under the Chief Information Officer (CIO) is necessary for TSD to align the goals/workload coming with the EHR project with the currently limited highest positional hierarchy of the ITM II level.

Network – Architecture, Engineering and Analysis

The EHR project will require considerable expansion to WLAN complexity, scale, and infrastructure across five 24/7 hospital campus locations.

IT Specialist III (.8) - FY 2023-24 and (1 Permanent) ongoing

The scope, complexity, and criticality of the WLAN requires the oversight and knowledge, skills and abilities of a high-level WLAN Architect at the ITS III level to ensure proper operation of the expanded WLAN for EHR.

WLAN Network – Architecture, Engineering and Analysis

The EHR project will require considerable expansion to core networking complexity, scale, and infrastructure across five 24/7 hospital campus locations.

IT Specialist III (.8) - FY 2023-24 and (1 Permanent) ongoing

The scope, complexity, and criticality of the core network requires the oversight and knowledge, skills and abilities of a high-level Network Architect at the ITS III level to ensure proper operation of the expanded network/WLAN for EHR.

Application Development, Support, Architecture, Integration/API, Engineering, Analysis

The EHR will contain many large, complex, custom workflows, forms, validation mechanics and bring with it requests for configuration/customization changes at the application level. This requires skilled application support engineers to configure, document, architect, and troubleshoot issues/requests that level one service desk staff cannot.

IT Manager I (1 Permanent) - FY 2023-24 and *ongoing*

This position level is needed to manage the higher-level engineers required to support the application engineering & support aspects of the EHR.

IT Specialist III (1.6) - FY 2023-24 and (2) Permanent) ongoing

IT Specialist II (1.6)– FY 2023-24 and (2) Permanent) ongoing

Data Analytics – Architecture, Engineering and Analysis

The EHR will become the single largest repository of mission critical patient treatment information across DSH. Proper and timely analysis of this data is critical to patient treatment and the operations/mission of the department. The amount of data reporting, analytics, dashboarding, data quality and data science work being asked of TSD will grow exponentially with the EHR.

IT Manager I (.8) - FY 2023-24 and (1 Permanent) ongoing

The IT Manager I position level is needed to manage the higher-level engineers and data architects required to support the data analytics aspects of the EHR.

IT Specialist III (.5) - FY 2023-24 and (1 Permanent) ongoing

The ITS III (Data Analytics Architect) will serve as the department data analytics expert and develop highly complex data science and analytics pipelines, workflows, reports, trending, and dashboards in support of the department's treatment efforts via EHR data.

IT Specialist II (1 Permanent) – FY 2023-24 and ongoing

Service Management and Governance – Project Management, Business Analysis, Vendor Management, Procurements, Organizational Change Management (OCM) and Communications, Administrative Support

IT Manager I (1 Permanent) FY 2023-24 and ongoing

This position serves as OCM Manager guiding OCM activities related to IT project management including, but not limited to: communications management, planning, portfolio management, process engineering/reengineering, scope management, stakeholder management, and time/schedule management. Manages the Change Specialists at each hospital location and ensures EHR Change Management processes are being met and communicated to executive leadership.

IT Supervisor II (1 Permanent) - FY 2023-24 and ongoing

The IT Supervisor II position manages the day-to-day operations and workload of the TSD procurement, contract, and budget staff.

IT Specialist II (3 Permanent) - FY 2023-24 and ongoing

Vendor Management (2) positions will ensure IT contract management best practices, processes and procedures are consistently applied to the highly technical projects and will effectively apply principles of purchasing, contract, and personnel management. Procurement Specialist (1) positions will handle any subsequent procurements that are in conjunction with the implementation of the new EHR system.

IT Specialist I (5 Permanent) – FY 2023-24 and ongoing

Change Management positions will serve as OCM catalysts responsible for communicating changes to business processes using new technology systems associated with the EHR project, changes to job roles and organization structures using various implementation strategies that maximize employee adoption and usage while minimizing resistance.

Server Storage (Cloud and Automation) - Architecture, Engineering and Analysis.

IT Specialist III (.8) - FY 2023-24 and (1) ongoing

This position will function as lead technical expert during the EHR procurement. Conduct complex and challenging cloud-based infrastructure work, laying the foundation and systems the EHR will need to lay on top of before System Integrator onboarding. Creating and implementing standards, strategy and practices for cloud and automation that

promote scalable, supportable cloud based EHR and ancillary EHR systems. This is a pre-requisite for EHR implementation and is foundational technical work that will inform the System Integrator and other technical teams during implementation.

HR and Facilities

Classification	Quantity Permanent	Cost Per Position
Associate Governmental Program Analyst	2	$ 138,000
Associate Construction Analyst	1	$ 198,000

Administrative - Associate Governmental Program Analyst (2.0 Permanent) - *FY 2023-24 $276,000 and ongoing*

DSH requests 2.0 positions to provide administrative support. The increased staffing requires additional support of numerous business areas including, but not limited to, Human Resources, Budget management, and Procurement and Contract management.

Facilities Planning, Construction and Management (FPCM) Support - Associate Construction Analyst (1 Permanent) - *FY 2023-24 $198,000 and ongoing*

As part of the WLAN upgrades at each facility and lessons learned from prior structured cabling projects, fire inspections for structured cabling at DSH hospital sites requires specialized expertise from FPCM. Expansion in the size, complexity, and criticality of the WLAN across all 5 hospital locations will result in extensive structured cabling needs. These include but are not limited to developing, designing, revising, or monitoring and reviewing drawings, and attending design and construction meetings. As well as conducting regular visual inspections of structured cabling at facility sites and requesting corrections, as needed to Contractor; prior to State Fire Marshal inspections and the acceptance of the services rendered. To ensure that the department meets the requirements, an Associate Construction Analyst, well versed in all construction requirements is requested.

Justifications for the positions is located in Attachment E – Workload Justifications – State.

Contract Requests

End User Devices: $2,523,599 and Medical Devices: $594,244

To prepare and receive maximum benefit from an EHR solution, additional devices will need to be deployed at DSH-Coalinga including tablets (which would be used for documentation by staff providing one-to-one observation of patients who have exhibited self-harm behaviors or ideation), laptops (used to enhance access by nursing staff who document weekly progress notes on all patients when workstations are unavailable), mobile devices, scanners (used to complete electronic medication administration recording), workstations, workstations on wheels (for point of care medical services), label printers, dictation devices (used by physicians and psychiatrists whose documentation workload increases upon implementation), and second monitors.

The number of devices was estimated based on use cases or the type of work done in each area in the hospital at DSH-Coalinga. Based on the work performed, it was estimated that each unit would need 4 laptops, 4 tablets, 6 mobile phones, 2 barcode scanners, 5 workstations in the nurses' station, 10 workstations in staff offices, 1 workstation in the exam room, 4 workstations on wheels, 1 document scanner, 2 vital signs devices, 2 glucometers and 2 label printers. Those numbers were then multiplied by the number of units (30). Off-unit areas were accounted for by going through each area and estimating the number of devices needed in those areas based on the type of work performed. Additional devices were added for psychiatrists, primary care physicians, nurse practitioners and health service specialists based on the type of work they perform.

EHR Contracted Staff Support - FY 2023-24 $6,693,000

Expert contracted staff will be necessary to support the knowledge and experience required to address a wide range of technical services to the department in relation to EHR. Services including security, network, application development, data analytics, service desk, service management and governance, server storage (cloud and automation).

Network

The WLAN Engineers (1) and Analysts (1) as well as the Network Engineers (1) and Analysts (1) roles have been identified as requiring contracted support due to the complexity of the work. The roles of these positions differ from the roles of the staff included in the State position request for network support as the State positions serve in a lead capacity with decision making authority over the contracted support, position details are described in Attachments E and F.

While WLAN resourcing was included in the prior EHR BCP3, it was primarily focused on the structured cabling aspects. The current WLAN resource request is required for two primary reasons. First, is the impact to the Personal Duress Alarm System (PDAS) that WLAN expansion will have, including re-calibration and re-configuration of PDAS across all five hospital campus locations. Any change however minor to WLAN architecture will mean major impacts to PDAS accuracy and considerable work will be required to ensure the expansion and swap of access points and other hardware is done as seamlessly as possible with as minimal impact to PDAS operation as is possible with an upgrade of this size. Second, and more directly related to EHR is for the installation, configuration, security, and maintenance of a wireless network doubling in size at all five campus locations. The total size and scope of this upgrade was not known until the recent completion of the WLAN assessment at DSH-Coalinga, thus providing additional detail into the size/scope of the upgrades needed to maintain the wireless network.

While the initial ask did include structured cabling focused WLAN resources, the expansion of the network overall being planned for WLAN and the core network with so many additional Internet of Things (IOT) or devices coming alongside EHR that will each require connectivity (iPhones, Tablets, cameras, radiology devices, etc.) is so large that additional resources are needed to ensure the needs are met.

Application Development/ Data Analytics/ Service Management and Governance/ Server Storage (Cloud and Automation)

The roles listed below are required for Application Development, Data Analytics, Service Management and Governance, and Server Storage (Cloud and Automation), having been identified as requiring contracted support due to the complexity of the work. These positions are responsible for critical cloud based back-end infrastructure the EHR will run on top of. Implementing the groundwork for data storage, backup and recovery, security and automations that must be made long before the System Integrator onboards. The roles of these positions differ from the roles of the staff included in the State position request for Application Development support as the State positions serve in a lead capacity with decision making authority over the contracted support, position details are described in Attachments E and F.

Application Engineers (1), Application Development Specialists (2), Application Analysts (2). Data Analytics Integration/API Engineers (1), Data Analytics Engineers (2), Data Specialists (1), Project Management, Risk and Schedule Management (1), Infrastructure Support Architect (1), Infrastructure Support Engineers (1), Infrastructure Support Specialists (1) as well as the IT Cloud and Automation Architect (1), IT Cloud and Automation Engineers (1) and IT Cloud and Automation Specialists (1).

	23/24	**Perpetual Contract Support**	**Ongoing Annual Cost**
Network			
WLAN Engineer	1.0	1.0	$398,000
Network Engineer	1.0	1.0	$398,000
WLAN Analyst	1.0	1.0	$348,000
Network Analyst	1.0	1.0	$348,000
Application Development			
Application Engineer	0.8	0.8	$248,333
Integration/API Engineer	0.7	0.7	$198,667
Application Development Specialist	1.7	1.7	$496,667
Integration/API Specialist	1.3	1.3	$397,333
Data Analytics			
Data Analytics Engineer	2.0	2.0	$740,000
Data Analytics Specialist	1.0	1.0	$314,000

Service Mgmt. and Governance			
PM/ Risk/Schedule Management	1.0	1.0	$430,000
Server Storage (Cloud and Automation)			
Infrastructure Support Architect	1.0	1.0	$442,000
IT Cloud and Automation Architect	1.0	1.0	$442,000
IT Infrastructure Engineer	1.0	1.0	$398,000
IT Cloud and Automation Engineer	1.0	1.0	$398,000
IT Infrastructure Specialist	1.0	1.0	$348,000
IT Cloud and Automation Specialist	1.0	1.0	$348,000
Total	**18.5**	**18.5**	**$6,693,000**

Justifications for the positions are in Attachment F – Workload Justifications - Contract Staff

External Short Term Implementation Consulting

Organizational Change Management - Contract: FY 2023-24 $2,016,000 a year for five years

Organizational Change Management (OCM) is a framework for managing the effect of new business processes, changes in organizational structure or cultural changes within an enterprise. OCM addresses the people side of change management that is necessary for the successful implementation of an EHR project.

A systematic approach to OCM is beneficial when change requires people throughout an organization to learn new behaviors and skills. By formally setting expectations, employing tools to improve communication, and proactively seeking ways to reduce misinformation, stakeholders are more likely to buy into a change initially and remain committed to the change throughout any discomfort associated with it. The need for OCM was identified early on in project planning. Funding for OCM services was approved for $1.3 million to begin in FY 2022-23 under EHR BCP2. This allotment equates to approximately two full-time OCM Consultants for two years. This request is for an extension of funding to begin in FY 2023-24 for the contractors through the end of the project.

Project Management - Contract: $1,008,000 a year for five years

Continued project management support of overall project planning, project management, transition planning and strategies of the System Integrator as well as the multiple subprojects are required for successful delivery of the EHR System. Project

Management includes but is not limited to adequate and effective risk management, financial monitoring, scheduling, and agile coaching.

Independent Verification and Validation - Contract: $691,200 a year for five years

Under the State Information Management Manual Section 45, Information Technology Oversight Framework, CDT requires projects of the size and complexity of EHR to include Independent Verification and Validation (IV&V) oversight resources. The IV&V consultant will assist DSH through implementation by evaluating project progress, deliverables, adherence to defined management processes, risk and issue response, and overall quality. The consultant will provide recommendations to project and executive management based upon these observations. DSH intends to contract for IV&V services beginning in FY 2023-24 and carrying through system acceptance.

Information Technology Technical Team Training - Contract: $300,000 a year ongoing

To effectively implement this transformational change, and to ensure a reasonable time to productivity for new staff, upskilling is required for technical team members. TSD will need training for new and existing staff in data analytics for effectively utilizing the EHR related data for departmentwide decision-making; design/implementation, interoperability, and data sharing, including HL7 v2, FHIR, RESTful web services and open web technologies, such as JSON and RDF data formats; leadership; change management; communication; security and cloud-based enterprise infrastructure, automation, and data management.

Independent Fire Inspector (Wireless Local Area Network) - Contract: $345,600 a year for three years

With necessity for fire inspections for structured cabling at DSH hospitals under the guidelines set by the State Fire Marshal (SFM), the approval for occupancy requires special inspections by a contracted Independent Fire Inspector (IFI). Depending on the specific inspection to be performed and subject to site specific conditions, the Deputy SFM (DFSM) may inspect a percentage of the work or may inspect 100%.

Special inspections are required by CA Building Code (CBC) Section 1705.17 for fire-resistant penetrations and joints in high-rise buildings and buildings assigned to Risk Category III or IV (State Hospitals are assigned to Risk Category III). CBC 1705.17.1 requires the special inspections of penetration firestop systems be performed by an approved agency. The State Fire Marshal's authority to enforce the special inspections requirements in CBC Chapter 17 is found in Health & Safety Code Section 13108(C), CCR Title 19 Section 3.00.1, and CBC Sections 1.11.5 & 110.3.10.

Interagency Consulting-Contract: $2,177,280 for six years

The EHR Project receives oversight from the Department of Technology (CDT) in the areas of Project Approval Lifecycle (PAL), Independent Project Oversight (IPO) consultancy. As determined by CDT, critical partners are also called upon for review as necessary from other sections of CDT such as Office of Enterprise Architect (OEA) and Statewide Technology Procurement (STP).

Summary of Resource Request

Expenditure	FY 2023-24	Ongoing
Personnel Services	40.2	58.0

Salaries & Benefits	$6,851,000	$9,942,000
Operating Expenses and Equipment	$645,000	$928,000
Total Civil Service Staffing	**$7,496,000**	**$10,870,000**
Contract Requests		
End User & Medical Devices (Pilot Site - Coalinga)	$3,118,000	$554,000
EHR Contract Support (Perpetual IT Network, Data, Server, Application Contracted Staff)	$6,693,000	$6,693,000
Limited Term* Implementation Consulting (OCM, Project Management, Ind. Fire Inspector WLAN, IT Training)	$3,670,000	$3,670,000
Interagency Consulting	$524,000	$524,000
Additional OE&E	**$14,005,000**	**$11,441,000**
Total Overall	**$21,501,000**	**$22,311,000**

E. Outcomes and Accountability

This proposal requests staffing resources and contract funding to allow DSH to complete remaining planning activities and complete the System Integrator procurement. In addition, this request provides the means necessary to implement the preparatory technical foundations the EHR will need for a successful implementation. The EHR project is not just a transformational initiative for clinical programs treating patients; the level of complexity, areas of responsibility, volume of IT systems, data, operating model, organization structure, and objectives that TSD covers will increase in scale significantly. DSH is transitioning from paper based clinical care, to a fully electronic system to run the core of clinical functions when treating patients, which means a vastly increased support and reliance on TSD across all major facets of the organization from IT administration, project management, network and server infrastructure, data analytics, disaster recovery, security, application development and more. The EHR will demand resources, specific expertise, and the transformation of all existing IT support structures to roll out and maintain the system long-term. These positions will create and design standards, strategy, best practices and implement the foundational engineering work required to prepare existing IT systems for the EHR and ensure the application programming interfaces (API's), data flows, architecture, and data are prepared for implementation.

Engaging stakeholders in communication is essential for the business to prepare for the use of new technology systems associated with the EHR project. Strategic supportive changes to organization structures and job roles utilizing various organizational change management strategies will maximize employee adoption while minimizing resistance. These positions, activities, and funding are crucial to enable DSH is structured and prepared for a smooth transition in onboarding the System Integrator. By approving this request, DSH will be ready, equipped and enabled to partner and engage with the selected System Integrator in a confident, competent manner while maintaining project momentum as the project progresses into implementation.

The project will be organized and conducted to meet requirements of the State Information Management Manual, Section 19 (SIMM 19), under the guidance of the California Project Management Framework (CA-PMF) and the Project Management Body of Knowledge (PMBOK), as maintained by the Project Management Institute (PMI). CDT will be critical partners in the effort providing oversight and independent verification and validation (IV&V) of the process, including negotiation and award of the contracts.

EHR Training Team

Workload Measure		**2023-24**
Number of trainings provided		188* (first hospital)

***** All of Coalinga – 3,000 Staff at 16 people at a time = 188 trainings based on the Healthcare Information Management Systems Society recommendation of 16 participants as the ideal classroom size.

F. Analysis of All Feasible Alternatives

Alternative 1– Approve $21.5 million General Fund and 40.2 positions in Fiscal Year (FY) 2023-24, and $22.3 million General Fund and 58.0 positions ongoing to complete remaining planning activities, conduct the System Integrator procurement and initiate the activities needed for a smooth transition into implementation of the Continuum Electronic Health Record (EHR) System. Ensuring DSH will be structured and enabled to partner and engage with the selected EHR System Integrator as the project plans to progress into implementation.

Pros

- Provides adequate staffing and funding to complete EHR planning and procurement activities
- Enables DSH to acquire a subset of the total number and type of end user and medical devices that will be deployed in production. Early acquisition of a subset helps mitigate delivery timeliness risks associated with supply chain delays, permits adequate time to configure and install the devices and ensures DHS the opportunity to validate that the selected devices are well-suited to DSH's needs.
- Lays the foundation for staffing EHR implementation, deployment, and production operations. Assigning state staff to the project will increase the likelihood of long-term sustainment of organizational change brought by implementation of the EHR system.

Cons

- Additional General Fund Expenditures

Alternative 2 – Deny the request of Alternative 1 to approve $21.5 million General Fund and 40.2 positions in Fiscal Year (FY) 2023-24, and $22.3 million General Fund and 58.0 positions ongoing for planning and procurement in preparation for the future implementation and ongoing operation of the Continuum Electronic Health Record (EHR) System at all five state hospitals.

Pros

- No additional General Fund expenditures.

Cons

- Delays and/or cancels the Continuum EHR project for an additional year and/or ongoing
- The State loses prior years investments into the EHR project
- Delayed or lack of realization of clinical and data benefits of an EHR.
- Delay of EHR implementation can result in additional DSH expenditures on interim technology solutions or workarounds to meet business needs
- Recruitment and retention will continue to be difficult for DSH without modernizing the working environment

G. Implementation Plan

DSH's ability to implement and evaluate the EHR system is dependent upon hospital network capacity to support the EHR. Thus, DSH plans to complete WLAN upgrades in advance of EHR deployment at any given hospital.

DSH estimates that procurement of the EHR will take about a year from procurement announcement to contract award. DSH further estimates that planning, design, and deployment of the EHR system at Coalinga, the pilot site, will take about a year. Using the standards and approach developed at Coalinga and applying lessons learned during deployment, DSH estimates that installation at the remaining four hospitals will take about a year to complete.

The following table shows the sequencing of the WLAN upgrade and EHR implementation efforts along with estimated start and completion dates.

Objective	Start Date	Completion Date
CDT Completes edits and releases EHR RFO		May 2023
Complete planning, engineering, and begin WLAN installation at first hospital site (Coalinga)	January 2023	March 2023
Complete WLAN installation at first site	March 2023	October 2023

EHR Procurement complete - contract awarded		July 2024
EHR Vendor comes on board		July 2024
Complete planning, engineering, and begin WLAN installation at second and third hospital sites	October 2023	January 2024
Complete WLAN installation at second and third sites	January 2024	August 2024
Coalinga EHR installation	November 2024	April 2026
Complete planning, engineering, and begin WLAN installation at fourth and fifth hospital sites	August 2024	November 2024
Complete WLAN installation at fourth and fifth sites	November 2024	June 2025
Remaining EHR installations	July 2026	January 2028
System Stabilization	January 2028	July 2028

Successful deployment of the EHR system is dependent upon several supporting efforts that must be in place timely to prevent negative impact to the EHR schedule and/or project objectives. This includes the award of supporting contracts for services related to Data Architecture and Management, Organizational Change Management, Implementation Project Management, and Independent Verification and Validation. DSH strategy is to award these contracts and on-board vendors prior to the award of the EHR implementation contract.

H. Supplemental Information

Attachment A: Fiscal Detail Sheet

Attachment B: Summary by Section of Permanent positions and Effective Dates

Attachment C: TSD Staff Proposal Breakdown

Attachment D: Workload History Tables

Attachment E: Workload Justifications – State Staff

Attachment F: Workload Justifications – Contracted Staff

I. Recommendation

Approval of - Alternative 1– $21.5 million General Fund and 40.2 positions in Fiscal Year (FY) 2023-24, and $22.3 million General Fund and 58.0 positions ongoing for the planning, completion of the System Integrator procurement, and initiation of implementation of the Continuum Electronic Health Record (EHR) System at all five state hospitals.

Attachment A: Fiscal Detail Sheet

BCP Fiscal Detail Sheet

BCP Title: Electronic Health Records Planning

BR Name: 4440-009-BCP-2023-GB

Budget Request Summary

	FY23					
	CY	**BY**	**BY+1**	**BY+2**	**BY+3**	**BY+4**
Personal Services						
Positions - Permanent	0.0	40.2	58.0	58.0	58.0	58.0
Total Positions	**0.0**	**40.2**	**58.0**	**58.0**	**58.0**	**58.0**
Salaries and Wages						
Earnings - Permanent	0	4,189	6,078	6,078	6,078	6,078
Total Salaries and Wages	**$0**	**$4,189**	**$6,078**	**$6,078**	**$6,078**	**$6,078**
Total Staff Benefits	0	2,662	3,864	3,864	3,864	3,864
Total Personal Services	**$0**	**$6,851**	**$9,942**	**$9,942**	**$9,942**	**$9,942**
Operating Expenses and Equipment						
5301 - General Expense	0	322	464	464	464	464
5304 - Communications	0	41	58	58	58	58
5320 - Travel: In-State	0	41	58	58	58	58
5324 - Facilities Operation	0	201	290	290	290	290
5340 - Consulting and Professional Services - External	0	10,363	10,363	10,363	10,363	10,363
5340 - Consulting and Professional Services - Interdepartmental	0	524	524	524	524	524
5346 - Information Technology	0	40	58	58	58	58
5368 - Non-Capital Asset Purchases - Equipment	0	3,118	554	554	554	554
Total Operating Expenses and Equipment	**$0**	**$14,650**	**$12,369**	**$12,369**	**$12,369**	**$12,369**
Total Budget Request	**$0**	**$21,501**	**$22,311**	**$22,311**	**$22,311**	**$22,311**

Fund Summary

Fund Source - State Operations						
0001 - General Fund	0	21,501	22,311	22,311	22,311	22,311
Total State Operations Expenditures	**$0**	**$21,501**	**$22,311**	**$22,311**	**$22,311**	**$22,311**
Total All Funds	**$0**	**$21,501**	**$22,311**	**$22,311**	**$22,311**	**$22,311**

Program Summary

Program Funding						
4400010 - Headquarters Administration	0	2,409	3,494	3,494	3,494	3,494
4400020 - Hospital Administration	0	17,632	15,764	15,764	15,764	15,764
4410010 - Atascadero	0	142	285	285	285	285
4410020 - Coalinga	0	902	1,443	1,443	1,443	1,443
4410030 - Metropolitan	0	140	444	444	444	444
4410040 - Napa	0	139	444	444	444	444
4410050 - Patton	0	137	437	437	437	437
Total All Programs	**$0**	**$21,501**	**$22,311**	**$22,311**	**$22,311**	**$22,311**

Personal Services Details

	Salary Information								
Positions	Min	Mid	Max	CY	BY	BY+1	BY+2	BY+3	BY+4
1139 - Office Techn (Typing)				0.0	1.0	1.0	1.0	1.0	1.0
1402 - Info Tech Spec I				0.0	5.0	5.0	5.0	5.0	5.0
1404 - Info Tech Supvr II				0.0	3.0	4.0	4.0	4.0	4.0
1405 - Info Tech Mgr I				0.0	1.7	2.0	2.0	2.0	2.0
1406 - Info Tech Mgr II				0.0	1.0	1.0	1.0	1.0	1.0
1414 - Info Tech Spec II				0.0	3.0	3.0	3.0	3.0	3.0
1415 - Info Tech Spec III				0.0	4.3	6.0	6.0	6.0	6.0
4106 - Assoc Constrn Analyst				0.0	1.0	1.0	1.0	1.0	1.0
4800 - Staff Svcs Mgr I				0.0	1.5	3.0	3.0	3.0	3.0
5142 - Assoc Pers Analyst				0.0	2.0	2.0	2.0	2.0	2.0
5393 - Assoc Govtl Program Analyst				0.0	5.0	10.0	10.0	10.0	10.0

5671 - Research Scientist Mgr			0.0	0.5	1.0	1.0	1.0	1.0
5758 - Research Data Spec II			0.0	3.0	6.0	6.0	6.0	6.0
7500 - - C.E.A. - B			0.0	0.7	1.0	1.0	1.0	1.0
7552 - Physician & Surgeon (Safety)			0.0	0.5	1.0	1.0	1.0	1.0
7925 - Sr Clinical Lab Technologist			0.0	1.0	1.0	1.0	1.0	1.0
7995 - Sr Radiologic Technologist (Spec-Safety)			0.0	1.0	1.0	1.0	1.0	1.0
8102 - Program Asst			0.0	1.0	2.0	2.0	2.0	2.0
8103 - Program Director			0.0	1.5	2.0	2.0	2.0	2.0
8132 - Asst Coord of Nursing Svcs			0.0	0.5	1.0	1.0	1.0	1.0
8154 - Nurse Instructor			0.0	1.0	2.0	2.0	2.0	2.0
9700 - Nurse Practitioner (Safety)			0.0	1.0	2.0	2.0	2.0	2.0
Total Positions			**0.0**	**40.2**	**58.0**	**58.0**	**58.0**	**58.0**

Salaries and Wages	**CY**	**BY**	**BY+1**	**BY+2**	BY+3	BY+4
1139 - Office Techn (Typing)	0	46	46	46	46	46
1402 - Info Tech Spec I	0	477	477	477	477	477
1404 - Info Tech Supvr II	0	328	437	437	437	437
1405 - Info Tech Mgr I	0	205	241	241	241	241
1406 - Info Tech Mgr II	0	139	139	139	139	139
1414 - Info Tech Spec II	0	338	338	338	338	338
1415 - Info Tech Spec III	0	525	733	733	733	733
4106 - Assoc Constrn Analyst	0	111	111	111	111	111
4800 - Staff Svcs Mgr I	0	132	265	265	265	265
5142 - Assoc Pers Analyst	0	149	149	149	149	149
5393 - Assoc Govtl Program Analyst	0	388	766	766	766	766
5671 - Research Scientist Mgr	0	78	156	156	156	156
5758 - Research Data Spec II	0	273	549	549	549	549
7500 - - C.E.A. - B	0	121	173	173	173	173
7552 - Physician & Surgeon (Safety)	0	131	261	261	261	261
7925 - Sr Clinical Lab Technologist	0	73	73	73	73	73

7995	-	Sr Radiologic Technologist (Spec-Safety)	0	77	77	77	77	77
8102	-	Program Asst	0	107	215	215	215	215
8103	-	Program Director	0	168	224	224	224	224
8132	-	Asst Coord of Nursing Svcs	0	65	130	130	130	130
8154	-	Nurse Instructor	0	120	241	241	241	241
9700	-	Nurse Practitioner (Safety)	0	138	277	277	277	277
Total Salaries and Wages			**$0**	**$4,189**	**$6,078**	**$6,078**	**$6,078**	**$6,078**
Staff Benefits								
5150200	-	Disability Leave - Industrial	0	54	78	78	78	78
5150210	-	Disability Leave - Nonindustrial	0	16	24	24	24	24
5150350	-	Health Insurance	0	190	278	278	278	278
5150450	-	Medicare Taxation	0	62	92	92	92	92
5150500	-	OASDI	0	260	374	374	374	374
5150600	-	Retirement - General	0	1,225	1,774	1,774	1,774	1,774
5150700	-	Unemployment Insurance	0	3	6	6	6	6
5150800	-	Workers' Compensation	0	190	278	278	278	278
5150820	-	Other Post-Employment Benefits (OPEB) Employer Contributions	0	112	162	162	162	162
5150900	-	Staff Benefits - Other	0	550	798	798	798	798
Total Staff Benefits			**$0**	**$2,662**	**$3,864**	**$3,864**	**$3,864**	**$3,864**
Total Personal Services			**$0**	**$6,851**	**$9,942**	**$9,942**	**$9,942**	**$9,942**

Attachment B: Summary by Section of Permanent positions and Effective Dates

Staffing Request Summary	**FY 23/24**	**FY 24/25 and Ongoing**
Training Team	**4.0**	**4.0**
Asst Coordinator Nurse Svcs	0.5	1.0
Registered Nurse	1.0	2.0
Program Director (Mental Disabilities - Safety)	0.5	1.0
Clinical Business Leadership	**18.5**	**33.0**
Assoc Govt Prog Analyst	5.0	10.0
Office Technician	1.0	1.0
Nurse Practitioner	1.0	2.0
Physician Surgeon	0.5	1.0
Research Data Spec II	3.0	6.0
Research Scientist Manager	0.5	1.0
Staff Services Manager I	1.5	3.0
Program Director	1.0	1.0
Program Assistant	1.0	2.0
Senior Clinical Lab Technologist	1.0	1.0
Senior Radiology Technologist	1.0	1.0
Technology Services	**17.5**	**19.0**
CEA	0.7	1.0
IT Manager I	2.8	3.0
IT Supervisor II	1.0	1.0
IT Specialist III	2.9	3.0
IT Specialist II	5.1	6.0
IT Specialist I	5.0	5.0
Administration (ADMIN)	**2.0**	**2.0**
Assoc Govt Prog Analyst	2.0	2.0
Facilities	**1.0**	**1.0**
Assoc. Construction Analyst (2 Yr. LT)	1.0	1.0
Total	**40.2**	**58.0**

Attachment C: Technology Services Division Staff Proposal Breakdown State Staff and Contracted Staff

Staff Request Summary	Description	State Staff FY 23/24	State Total Ongoing	Contracted Support FY 23/24	Perpetual Contracted Support
Management/Leadership		1.0	1.0	0.0	0.0
CEA B - Assist Deputy	Technology	1.0	1.0		
Network		3.0	3.0	10.2	10.2
IT Specialist III	WLAN Architect	0.8	1.0		
IT Specialist III	Network Architect	0.8	1.0		
IT Specialist II	WLAN Engineer	0.0	0.0	2.5	2.5
IT Specialist II	Network Engineer	0.0	0.0	1.0	1.0
IT Specialist I	WLAN Analyst	0.0	0.0	5.0	5.0
IT Specialist I	Network Analyst	0.0	0.0	1.7	1.7
Application Development		5.0	5.0	4.5	4.5
IT Manager I	Application Support Manager	1.0	1.0		
IT Specialist II	Application Support	0.8	1.0		
IT Specialist II	Integration/API	0.8	1.0		
IT Specialist III	Application Architect	0.8	1.0		
IT Specialist III	Integration/API Architect	0.8	1.0		
IT Specialist II	Application Engineer	0.0	0.0	0.8	0.8
IT Specialist II	Integration/API Engineer	0.0	0.0	0.7	0.7
IT Specialist I	Application Development Specialist	0.0	0.0	1.7	1.7
IT Specialist I	Integration/API Specialist	0.0	0.0	1.3	1.3
Data Analytics		3.0	3.0	6.0	6.0
IT Manager I	Data Analytics Manager	0.8	1.0		
IT Specialist II	Data Analytics	0.5	1.0		

IT Specialist III	Data Analytics Architect	0.5	1.0		
IT Specialist II	Data Analytics Engineer	0.0	0.0	3.0	3.0
IT Specialist I	Data Analytics Specialist	0.0	0.0	3.0	3.0
Service Mgmt. & Governance		13.0	23.0	3.0	3.0
IT Specialist II	Vendor Management	2.0	2.0		
IT Supervisor II IT Specialist II	Procurement Manager Procurement Specialist	1.0 1.0	1.0 1.0		
IT Manager I	Change Mgr./OCM Contract Mgr./Comms	1.0	1.0		
IT Specialist I	Change Management	5.0	5.0		
IT Specialist II	PM/ Risk/ Schedule Management	0.0	0.0	1.0	1.0
IT Specialist I	Training/ Testing	0.0	0.0	2.0	2.0
Server Storage (Cloud and Automation)		1.0	1.0	6.0	6.0
IT Specialist III	Infrastructure Support Architect	0.8	1.0		
IT Specialist III	Infrastructure Support Architect	0.0	0.0	1.0	1.0
IT Specialist III	Cloud and Automation Architect	0.0	0.0	1.0	1.0
IT Specialist II	IT Infrastructure Engineer	0.0	0.0	1.0	1.0
IT Specialist II	IT Cloud and Automation Engineer	0.0	0.0	1.0	1.0
IT Specialist I	IT Infrastructure Specialist	0.0	0.0	1.0	1.0

IT Specialist I	IT Cloud Automation Spec	0.0	0.0	1.0	1.0
Facilities & Human Resources		3.0	3.0	0.0	0.0
Associate Construction Analyst	Facilities Infrastructure WLAN	1.0	1.0		
Associate Personnel Analyst/ Associate Government Program Analyst	Human Resources	2.0	2.0		
		40.2	**58.0**	**29.7**	**29.7**

Attachment D: Workload History Tables

Clinical Business Leadership Workload History

Workload Measure	2017-18	2018-19	2019-20	2020-21	2021-22
Assist with market research and drafting budget proposals	x				
Document As-Is business processes		x			
Reconciliation of system inconsistencies			x		
To-Be workflows			x		
Developed detailed requirements				600	
Conducted market research				x	
Established electronic documentation governance policies and procedures					x
Assisted with the drafting of the RFP including demonstration and Proof of Concept scripts					x

TSD Enterprise Applications

Workload Measure	2017-18	2018-19	2019-20	2020-21	2021-22
New Development	N/A	4	6	9	19
Maintenance & Operation of existing applications (Major Patches)	N/A	3	13	19	24
Maintenance & Operation of existing applications (Minor Patches)	N/A	30	59	90	115
Data Analysis (Reporting)	N/A	40	47	204	301

Attachment E: Workload Justifications – State Staff

Facilities - Operations Summary
ACA WLAN
Associate Construction Analyst
Justification
Expansion in the size, complexity, and criticality of the WLAN across all 5 hospital locations will result in extensive structured cabling needs. These include but are not limited to adherence to CA Building Code (CBC) Section 1705.17 for fire-resistant penetrations and joints in high-rise buildings and buildings assigned to Risk Category III or IV (State Hospitals are assigned to Risk Category III). Under the guidelines set by the State Fire Marshal (SFM), the approval for occupancy requires special inspections by a contracted Independent Fire Inspector (IFI). To ensure that the department meets the requirements, an Associate Construction Analyst, well versed in all construction requirements is requested.

Training Team Summary
EHR Training Coordinator
Assistant Coordinator of Nursing Services
Justification
Providing training for each and every staff member who will be using the EHR will be an enormous task to coordinate and manage. This position will be at DSH-Coalinga, the pilot hospital during EHR implementation coordinating and managing training efforts. They will assist the Training Officer II in developing and standardizing training materials for end users.
EHR Training Instructor
Registered Nurse
Justification
Providing training for each and every staff member who will be using the EHR will be an enormous task to coordinate and manage. This position deployed to DSH-Coalinga during EHR implementation. They will provide training directly to EHR end users.
EHR Training Officer
Program Director
Justification
Providing training for each and every staff member who will be using the EHR will be an enormous task to coordinate and manage. This position will lead coordination and management of all EHR training efforts. They will lead the development and standardization of training materials for end users.

Clinical Leadership Summary
Associate Governmental Program Analyst
Associate Governmental Program Analyst
Justification
The AGPA positions will be responsible for supporting the efforts of the entire Clinical Business Leadership team--everything from contract support, hiring/recruiting vacancies, meeting support, etc. as well as data collection and quality improvement.
Office Technician
Office Technician
Justification
The Office Technician will provide support for the Clinical Business Leadership Team as well as the existing Clinical Technology Analyst Team to provide office-based support such as timesheets, travel support and arrangements, and minutes recording during essential business meetings.
Clinical Informaticist - Nursing
Nurse Practitioner
Justification
This position will be responsible for enabling better collaboration and coordination among DSH clinical and nursing providers, streamlining medical quality assurance processes, improving cost-efficiency in care delivery, and increasing accuracy and efficiency in utilizing the EHR solution.
Clinical Informaticist - Medical
Physician & Surgeon
Justification
This position will be responsible for enabling better collaboration and coordination among DSH clinical and medical providers, streamlining medical quality assurance processes, improving cost-efficiency in care delivery, and increasing accuracy and efficiency in utilizing the EHR solution.
Clinical Informatics Scientist
Research Data Specialist II
Justification
This position will be responsible for enabling better collaboration and coordination among DSH clinical, streamlining medical quality assurance processes, , and increasing accuracy and efficiency in utilizing the EHR solution.
Clinical Informatics Manager
Research Scientist Manager
Justification
This position will be responsible for enabling better collaboration and coordination among DSH clinical providers, streamlining medical quality assurance processes, improving cost-efficiency in care delivery, and increasing accuracy and efficiency in utilizing the EHR solution. This position will be the lead data steward and provide oversight and management to the team.

Staff Services Manager I
Staff Services Manager I
Justification
The SSMIs will serve as clinical informatics specialists, which bridge the gap between clinicians and data. Responsible for planning and preparation of enterprise data standardization and cleansing efforts for all existing legacy applications that will be retired or integrated with the Continuum-EHR solution. Effectively supporting the efforts of the entire Clinical Business Leadership team--from contract support, hiring/recruiting vacancies, meeting support, etc.
EHR Hospital Program Director
Program Director
Justification
The program director position will be deployed to Coalinga State hospital. They will be the primary point of contact for their hospital leading up to and during implementation. Post EHR Go-Live the program director will be responsible for local maintenance and operations activities related to training, business process improvements, and support.
EHR Hospital Program Assistant
Program Director
Justification
The Program Assistant will assist the Program Director managing logistics for system updates, communication, job aids, training, working with clinical supervisors, program management to ensure training is scheduled for all EHR initiatives. During implementation one will administratively supervise superusers and trainers, and the other will lead change management initiatives at their facility.
Clinical Technology Analyst
Senior Lab Technician
Justification
Clinical Technology Analyst (CTA) for statewide lab efforts. Responsible for evaluating processes, planning implementation, and leading laboratory maintenance and operation activities
Clinical Technology Analyst
Senior Radiology Technologist
Justification
Clinical Technology Analyst (CTA) for statewide radiology efforts. Responsible for evaluating processes, planning implementation, and leading laboratory

IT Management Leadership Summary
Asst. Deputy Technology
Career Executive Assignment B
Justification
With the considerable expansion in staffing, responsibilities, network/infrastructure complexity and level of management positions required to support the EHR, a higher-level structure of senior management under the CIO is necessary for TSD to align the goals/workload coming with the EHR project with the currently limited highest positional hierarchy of the ITM II level. The skills, abilities, workload capacity and knowledge required at this level of complexity require a CEA B level position to effectively meet the needs of a project of this magnitude and complexity. Oversight responsibilities for the proposed new and current IT Manager II (DevOps Chief/Hospital Ops Chief) positions cannot remain reporting to the CIO and this new CEA position is needed to maintain current IT Operations and ensure business continuity remains unchanged while taking on the new responsibilities, IT complexity and workload coming to TSD with the rollout of EHR. The CEA B (Chief Technology Officer) will oversee and manage a massive expansion in technical roles/responsibilities for TSD including application development/support, data analytics development/support, cloud/infrastructure support, network engineering and a 24/7 service desk across all five hospital campus locations and Sacramento. This effectively splits the organization under the CIO into two primary areas of responsibility (Technical & IT Business Operations) positioning the unit for much more efficient operations.

Network Summary
WLAN Architect
IT Specialist III
Justification
The IT Specialist III acts as the primary WLAN expert and provides the highest level of architectural oversight and installs, configures, and maintains the wireless network equipment, network management and security including 802.11 b/g/n/ac standards and industry best practices for implementing high-density WIFI solutions across all five campus locations.
Network Architect
IT Specialist III
Justification
The IT Specialist III acts as the primary network expert and provides architectural oversight and installs, configures, and maintains the core network equipment, network management and security including standards and industry best practices for implementing highly available, fault tolerant network infrastructure across all five campus locations.

Application Development Summary
Application Support Manager
Information Technology Manager I
Justification
The EHR will contain many large and complex custom workflows, forms, validation mechanics and bring with it requests for configuration/customization changes at the application level. This requires skilled application support engineers to configure, document, architect, troubleshoot and resolve issues/requests that level one service desk staff cannot. This significantly increases the responsibilities and splitting out application support/configuration duties from net new software development efforts is necessary to continue to develop and deploy new business capabilities, maintain current business continuity, and bring new systems online while also supporting the influx in new support responsibilities with the roll out of the EHR. This position level is needed to manage the higher-level engineers required to support the application engineering & support aspects of the EHR.
Application Architect
Information Technology Specialist III
Justification
EHR will contain many large and complex custom workflows, forms, validation mechanics and bring with it requests for configuration/customization changes at the application level. This requires skilled application support engineers to configure, document, architect, troubleshoot and resolve issues/requests that level one service desk staff cannot. The Information Technology Specialist III serves as the departments application architect and will lead teams of engineers in the building, documentation, systems architecture, rollout and testing of complex customization, workflows, form modification and validation mechanics of the highest complexity within EHR and its supporting/related systems. EHR will involve many highly complex software engineering challenges, requiring the expertise of the IT Specialist III (Application Architect) to ensure software is secure, fits with enterprise standards and is maintainable across DSH systems.
Integration Architect
Information Technology Specialist III
Justification
The EHR will interface patient data and records through HL7 standards with many complex and mission-critical IT applications, back-end databases, APIs, reports, data sources, COTS/Cloud products and IT systems through the ESB and through custom API/Integration solutions. Developing, architecting, maintaining, and supporting these integrations, APIs, and integrations with both current and legacy systems as the project moves forward will require skilled Integration Engineers to configure, document, architect, troubleshoot and resolve issues/requests that directly involves the ESB/APIs.

Analysis of Problem

This work is highly complex and specialized in nature and the IT Specialist III (Integration Architect) serves as the departments lead integration architect and will lead teams of integration engineers in the building, documentation, systems architecture, rollout and testing of complex integrations of the highest complexity within the EHR and its supporting/related systems. EHR will involve many highly complex software engineering challenges, requiring expertise of the ITS III (Integration Architect) to ensure integration and data transfer is reliable, secure, fits with enterprise standards and is maintainable for the DSH enterprise.

Data Analytics Summary
Data Analytics Manager
IT Manager I
Justification
The EHR will become the single largest repository of mission critical patient treatment information across DSH. Proper and timely analysis of this data is critical to patient treatment and the operations/mission of the department. The amount of data reporting, analytics, dashboarding, data quality and data science work being asked of EAS will grow exponentially with the EHR. In order to continue to support existing data reports, dashboards, and efforts and keep up with demand for new data capabilities out of the EHR, splitting out the responsibilities for EHR data from EAS is necessary. This position level is needed to manage the higher-level engineers and data architects required to support the data analytics aspects of the EHR.
Data Analytics Architect
IT Specialist III
The EHR will become the single largest repository of mission critical patient treatment information across DSH. Proper and timely analysis of this data is critical to patient treatment and the operations/mission of the department. The amount and complexity of data reporting, analytics, dashboarding, data quality and data science work being asked of EAS will grow exponentially with the EHR. This requires a highly skilled data analytics architect to develop, configure, document, architect, troubleshoot and resolve issues/requests of the highest complexity that require the highest level of data analytics architecture/engineering expertise to perform. The ITS III (Data Analytics Architect) will serve as the department data analytics expert and develop highly complex data science and analytics pipelines, workflows, reports, trending, and dashboards in support of the department's treatment efforts via EHR data.

Service Management & Governance Summary
Vendor Management/Contract Manager
IT Specialist II
Justification
EHR is considered a megaproject by the Department of Finance and California Department of Technology. Dedicated resources are needed to implement and maintain EHR, outside the operational projects/analysis. The management of this vendor will be key in ensuring that the project is successful. Managing the implementation, setting up expectations for Service Level Agreements (SLA) and post implementation support is going to be critical in this vendor being successful. There will be a need for daily meetings post implementation to discuss open tickets and issues that staff are experiencing at the hospital locations. There will also be dedicated team members ongoing to ensure that we are managing incidents and SLA's post implementation at each hospital. This is going to require constant monitoring of incident reports and performance of the vendor until the end of the contract.
Vendor Management/Contract Manager
Information Technology Specialist II
Justification
The IT Specialist II will serve as a subject matter expert in the areas of state contracts and procurement. This position ensures Information Technology contract management best practices, processes and procedures are consistently applied to the highly technical projects and will effectively apply the principles of purchasing, contract management, personnel management; and the regulations and procedures as prescribed California State Information Management Manual (SIMM).
Procurement Manager
Information Technology Supervisor II
Justification
Information Technology Supervisor II (IT Supervisor II) manages the day-to-day operations and workload of the TSD procurement, contract, and budget staff.
OCM Manager
Information Technology Manager I
Justification
Information Technology Manager I (ITM I) is responsible for organization change management (OCM) activities under the purview of the Electronic Health Record (EHR) Project. The ITM I guide OCM activities related to IT Project Management including, but not limited to: Communications Management, Planning, Portfolio Management, Process Engineering/Reengineering, Scope Management, Stakeholder Management, and Time/Schedule Management. The ITM II oversees the development, maintenance, and monitoring of standardized methods and procedures for the efficient and prompt handling of all changes to minimize the impact of change upon DSH service quality.

Organizational Change Management Catalyst
IT Specialist I (ITSI)
Justification
The ITS1 will serve as Organizational Change Management Catalyst responsible for communicating changes to business processes through the use of new technology systems associated with the EHR project, changes to job roles and organization structures using various implementation strategies that maximize employee adoption and usage while minimizing resistance. Staff in this role must balance complex analysis on business needs with project management tasks, which includes in-depth analysis, evaluation, and planning for organization change, gauging and addressing gaps that negatively impact individuals' and organizational readiness (e.g., creating awareness among stakeholders, communicating the risks of not changing, communicating the benefits of the change, understanding impacts to end-users, instilling commitment to support the new way of doing work that the project implementation will bring) of a highly complex IT project.

Server Storage - Cloud and Automation Summary
Enterprise Cloud and Automation Architect
Information Technology Specialist III
Justification
This position will function as lead technical expert during the EHR procurement. Conducting complex and challenging cloud-based infrastructure work, setting the foundation and systems the EHR will need to lay on top of before SI onboarding. Creating and implementing standards, strategy and practices for cloud and automation that promote scalable, supportable cloud based EHR and ancillary EHR systems. This is a pre-requisite for EHR implementation and is foundational technical work that will inform the SI and other technical teams during implementation.

Facilities - Operations Summary
ACA WLAN
Associate Construction Analyst
Justification
Expansion in the size, complexity, and criticality of the WLAN across all 5 hospital locations will result in extensive structured cabling needs. These include but are not limited to adherence to CA Building Code (CBC) Section 1705.17 for fire-resistant penetrations and joints in high-rise buildings and buildings assigned to Risk Category III or IV (State Hospitals are assigned to Risk Category III). Under the guidelines set by the State Fire Marshal (SFM), the approval for occupancy requires special inspections by a contracted Independent Fire Inspector (IFI). To ensure that the department meets the requirements, an Associate Construction Analyst, well versed in all construction requirements is requested.

Attachment F: Workload Justifications – Contracted Staff

Network Summary
WLAN Engineer
Senior Technical Lead
Justification
With the reliance of EHR on the WLAN, the scale, number and complexity of trouble tickets and architectural changes required to maintain the operations and security of the WLAN will increase with the rollout of the EHR. The 5 WLAN engineers based on one engineer per hospital site are required to maintain the operations of a highly complex WLAN as well as address higher level trouble tickets across five large 24/7 hospital campus locations. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios.
Network Engineer
Senior Technical Lead
Justification
With the reliance of EHR on the core network and WLAN, the scale, number and complexity of trouble tickets and architectural changes required to maintain the operations and security of the network will increase with the rollout of the EHR. The 5 network engineers based on one engineer per site are required to maintain the operations of a highly complex core network and WAN as well as address higher level trouble tickets across five large 24/7 hospital campus locations. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios.
WLAN Analyst
Technical Lead
Justification
With the reliance of EHR on the WLAN, the scale, number and complexity of trouble tickets and architectural changes required to maintain the operations and security of the WLAN will increase with the rollout of the EHR. The 5 WLAN analyst are required to support the IT Specialist IIs (WLAN) in the massive workload expansion and are responsible for maintaining the operations of a highly complex WLAN as well as address lower-level trouble tickets across five large 24/7 hospital campus locations. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios. The number of staff needed was based on WLAN support for each hospital site, with at least one resource per site.

Network Analyst
Technical Lead
Justification
With the reliance of EHR on the core network/WAN, the scale, number and complexity of trouble tickets and architectural changes required to maintain the operations and security of the core network will increase with the rollout of the EHR. The 5-network analyst are required to support the IT Specialist IIs (Core Network) in the large expansion and complexity of core networking workload and are responsible for maintaining the operations of a highly complex network as well as address lower-level trouble tickets across five large 24/7 hospital campus locations. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios. Number of five based on one analyst per site.

Application Development Summary
Application Engineer
Software Engineer
Justification
EHR will contain many large and complex custom workflows, forms, validation mechanics and bring with it requests for configuration/customization changes at the application level. This requires skilled application support engineers to configure, document, architect, troubleshoot and resolve issues/requests that level one service desk staff cannot. The Information Technology Specialist II is responsible for documenting, building, testing, and deploying complex customizations, workflows, form modifications and validation mechanics of high complexity within EHR and its supporting/related systems. EHR will involve many complex software engineering challenges, requiring the expertise of Information Technology Specialist IIs (Application Engineers) to ensure software is secure, fits with enterprise standards, and is maintainable across DSH systems.
Integration Engineer
Software Engineer
Justification
The EHR will interface patient data and records through HL7 standards with many complex and mission-critical IT applications, back-end databases, APIs, reports, data sources, COTS/Cloud products and IT systems through the ESB and through custom API/Integration solutions. Developing, architecting, maintaining, and supporting these integrations, APIs, and integrations with both current and legacy systems as the project moves forward will require skilled Integration Engineers to configure, document, architect, troubleshoot and resolve issues/requests that directly involves the ESB/APIs.
Application Analyst
Software Engineer
Justification
EHR will contain many large and complex custom workflows, forms, validation mechanics and bring with it requests for configuration/customization changes at the application level. This requires skilled application support engineers to configure, document, architect,

troubleshoot and resolve issues/requests that level one service desk staff cannot. Under direction, the Information Technology Specialist I are responsible for documenting, building, testing, and deploying customizations, workflows, form modifications and validation mechanics of within EHR and its supporting/related systems.
Integration Analyst
Software Engineer
Justification
The EHR will interface patient data and records through HL7 standards with many complex and mission-critical IT applications, back-end databases, APIs, reports, data sources, COTS/Cloud products and IT systems through the ESB and through custom API/Integration solutions. Developing, architecting, maintaining, and supporting these integrations, APIs, and integrations with both current and legacy systems as the project moves forward will require skilled Integration Analysts to assist tasks regarding the configuration, documenting, troubleshooting and issues resolution that directly involves the ESB/APIs. This work is specialized in nature and the IT Specialist I (Integration Analyst) will participate in efforts to design, build, test, and deploy integrations within EHR applications and supporting/related systems. EHR will involve many highly complex software engineering challenges, requiring the expertise of Integration Analysts to ensure integration and data transfer is reliable, secure, fits with enterprise standards and is maintainable for the DSH enterprise.

Data Analytics Summary
Data Analytics Engineer
Senior Data Engineer
Justification
The 2 Data Analytics Engineers are required to respond to and support the increased amounts of higher level, more complex and challenging Data Analytics tickets/requests, and data science roles in support of the EHR at the sites and in Sacramento for enterprise analytics. This number is derived from the need to support unique analytics at each hospital site as well as enterprise level analytics in Sacramento at a large scale and complexity increase. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios.
Data Analytics Specialist
Data Engineer
Justification
The Data Analytics Specialist are required to support the IT Specialist II (Data Analytics Engineer) in increased amounts of Data Analytics support tickets/requests and data science tickets in support of the EHR for each site and at the enterprise level in Sacramento. Data from Gartner, Number of Facilities/Ticket Counts, CDT Recommendations, and statistics from ServiceNow was used to reach this number in alignment with industry standard Bed/IT Staff Ratios. Number of staff derived with at least one specialist at each site and one in Sacramento for enterprise analytics.

Service Management & Governance Summary
Project Manager/Risk Manager/Schedule Manager
Senior Project Manager
Justification
EHR is considered a megaproject by the Department of Finance and California Department of Technology. Dedicated resources are needed to implement and maintain EHR, outside the operational projects/analysis. This position will be focused on project management, risk management, and schedule management. Upon implementation of the project, this position will operate in the same fashion pertaining to the EHR portfolio of activities in maintenance and operations.

Server Storage - Cloud and Automation Summary
Enterprise Architect – Infrastructure
Senior Enterprise Architect
Justification
With the EHR project, this position will serve as the department's Enterprise Infrastructure Architect to design and support all the infrastructure designs across all five hospitals and the primary data center. The position will work with the business units to ensure all systems across the hospitals and the business are designed appropriately and are compatible with each other. The position requires a highly skilled architect to design, document, troubleshoot, and help resolve issues.
Enterprise Cloud and Automation Architect
Senior Enterprise Architect
Justification
With the EHR project, this position will serve as the department's Enterprise Cloud and Automation Architect to design and support all the Enterprise Cloud and Automation designs across all five hospitals and the primary data center. The position will work with the business units and IT infrastructure to architect business processes and IT infrastructure automation to increase speed and efficiency across all departments. The position requires a highly skilled Cloud and Automation architect to design, document, troubleshoot, and help resolve issues.
Enterprise System Engineer
Senior Technical Lead
Justification
These positions will serve to support the increased complexity of the EHR project and ticket escalations at each of the five hospitals and Sacramento data centers. They will work with the local hospitals and Sacramento to ensure the Enterprise Infrastructure operations will be maintained in a 24/7 hospital environment. These positions are based on one position per site. These positions will troubleshoot 3rd level ticket escalations within the team. This will help DSH ensure all the tasks around securing, hardening, and patching are up to date and implemented promptly, reducing our risks, and keeping our Protected Health Information (PHI) and Personally Identifiable Information (PII) safe.

Enterprise Cloud and Automation Engineer
Senior Technical Lead
Justification
These positions will serve to support the increased complexity of the EHR project and ticket escalations on all Enterprise Cloud and Automation efforts. They will work with the local hospitals, business units, and Sacramento to ensure the Enterprise Cloud and Automation operations will be maintained in a 24/7 hospital environment. These positions are based on one position per site. These positions will troubleshoot 3rd level ticket escalations within the team and implement new cloud and automation designs architected by the Information Technology Specialist III. This will help DSH ensure all the tasks around securing, hardening, and patching the Cloud and Automation environment are up to date and implemented promptly, reducing our risks, and keeping our Protected Health Information (PHI) and Personally Identifiable Information (PII) safe.
Enterprise Systems Administrators
Technical Lead
Justification
These positions will serve to support the increased complexity of the EHR project and ticket escalations at each of the five hospitals and Sacramento data centers. They will work with the local hospitals and Sacramento to ensure the Enterprise Infrastructure operations will be maintained in a 24/7 hospital environment. These positions are based on one position per site. These positions will troubleshoot 2nd level ticket escalations that come from the helpdesk and will be working closely with the Information Technology Specialist II. This will help DSH ensure all the tasks around securing, hardening, and patching are up to date and implemented promptly, reducing our risks, and keeping our Protected Health Information (PHI) and Personally Identifiable Information (PII) safe.
Enterprise Cloud and Automation Administrators
Technical Lead
Justification
These positions will serve to support the increased complexity of the EHR project and ticket escalations at each of the five hospitals and Sacramento data centers. They will work with the local hospitals and Sacramento to ensure the Enterprise Cloud and Automation operations will be maintained in a 24/7 hospital environment. These positions are based on one position per site. These positions will troubleshoot 2nd level ticket escalations that come from the helpdesk or business units that require process automations. This will help DSH ensure all the tasks around securing, hardening, and patching are up to date and implemented promptly, reducing our risks, and keeping our Protected Health Information (PHI) and Personally Identifiable Information (PII) safe.